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## Accreditation and Memberships

Since 1963, Messiah College has been accredited by the Middle States Association of Colleges and Schools, Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104-2680. Telephone: 267-284-5000.

**Accreditors Recognized by U.S. Secretary of Education:** The Academy of Nutrition and Dietetics, Accreditation Commission for Education in Nutrition and Dietetics (ACEND); Commission on Collegiate Nursing Education (CCNE); Council for Accreditation of Counseling and Related Educational Programs (CACREP); National Association of Schools of Art and Design (NASAD), Commission on Accreditation; National Association of Schools of Music (NASM), Commission on Accreditation; National Association of Schools of Theatre (NAST), Commission on Accreditation.

**Accreditors Recognized by the Counsel for Higher Education Accreditation:** PA Department of Education (Teaching Certification Programs); The Bachelor of Science in Engineering (BSE) degree is accredited by the Engineering Accreditation Commission of ABET <http://www.abet.org>; Accreditation Council for Business Schools and Program (ACBSP); Council on Social Work Education (CSWE).

**Other Accreditors and Approvals:** Commission on Accreditation of Athletic Training Education (CAATE), National Council on Family Relations' (NCFR) Certified Family Life Educator Approval.

As an active participant in current developments in higher education, the College also holds educational memberships in many organizations, including the Association of American Colleges and Universities, the Association of Independent Colleges and Universities of Pennsylvania, the Council of Independent Colleges, the Christian College Consortium, the Council for Christian Colleges and Universities, the National Association of Independent Colleges and Universities, and the Council for Advancement and Support of Education.

# MESSIAH COLLEGE: A CHRISTIAN COLLEGE OF THE LIBERAL & APPLIED ARTS & SCIENCES

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## Identity and Mission

Three statements best describe the identity and mission of Messiah College:

- Messiah College is a Christian college of the liberal and applied arts and sciences.
- The College is committed to an embracing evangelical spirit rooted in the Anabaptist, Pietist, and Wesleyan traditions of the Christian Church.
- Our mission is to educate men and women toward maturity of intellect, character, and Christian faith in preparation for lives of service, leadership, and reconciliation in church and society.

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# A CHRISTIAN COLLEGE OF THE LIBERAL & APPLIED ARTS & SCIENCES

## Messiah College Undergraduate Catalog

Volume LXXXIX, 2013–2014



### A Message from the President

Welcome to Messiah College—a Christ centered educational community committed to the intellectual, personal, and spiritual development of our students. Messiah seeks to prepare women and men to effectively lead and serve an increasingly global 21<sup>st</sup> century society. Our educational program is designed to challenge and motivate students to develop and use their unique gifts and abilities in service to God and others.

Messiah offers a program of 83 academic majors in the liberal and applied arts and sciences. All students are required to complete a core general education program and an academic major in preparation for lives of service, leadership, and reconciliation. In addition, we offer an array of contextual learning opportunities which include off-campus study at over 40 sites, internships, service learning, and a college-sponsored residential program in the city of Harrisburg. Messiah's faculty possesses an extraordinary commitment to teaching and scholarship. Accomplished Christian scholars and experts in their disciplines, our faculty and cocurricular educators are student-centered—serving as mentors to help students engage in deep learning and pursue meaningful vocations.

If you are interested in pursuing an educational experience that will challenge and transform, I invite you to consider Messiah College.

Kim S. Phipps  
President

### Statement on Liberal Learning and Christian Scholarship

Messiah College educates for mature Christian citizenship. This means that:

- we expect our faculty to teach as Christian scholars in pursuit of faithfulness to both God and academic disciplines;
- we embrace liberal learning, believing that all truth is God's truth—revealed by God to be understood and applied by each of us;
- we expose our students to multiple views and perspectives to enable them to respond with maturity to the complexities of the contemporary world;
- we approach intellectual questions in a spirit of humility recognizing that each individual's knowledge, understanding, and wisdom are finite; and
- we seek to learn in order to better serve God and others.

### Statement on Nondiscrimination

Messiah College does not discriminate on the basis of gender, race, color, age, disability, or national or ethnic origin in the administration of its educational policies, scholarship and loan programs, and athletic or other College-administered programs.

### Statement on Change

The provisions and requirements stated in the Messiah College Catalog are not to be considered as an irrevocable contract between the student and Messiah College. The College reserves the right to change any of the provisions or requirements at any time within the student's term of residence. No such change, however, will be applied retroactively so as to extend the time normally required for completion of the student's program. The College reserves the right to cancel any announced program, major, or course, as well as change the course instructor or change the time it will be offered. The College's obligation to continue to offer any programs or majors in conjunction with another institution is expressly contingent on the institution's continued participation.

# COLLEGE PROFILE

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## History

Founded in 1909 by the Brethren in Christ Church in Harrisburg, Pennsylvania, to “educate men and women for home and foreign mission or evangelistic work,” Messiah Bible School and Missionary Training Home originally had seven faculty and staff members and 12 students. By the end of the first school year, enrollment had risen to thirty-seven students, and construction was under way for Old Main, the first building on the College’s current Grantham Campus.

In 1924, the school’s name was changed to Messiah Bible College. This change accurately reflected the institution’s broadening curriculum and the junior college status it achieved in 1922. By 1951, the College was approved to confer baccalaureate degrees and was renamed Messiah College. Accreditation from the Middle States Association of Colleges and Secondary Schools was achieved in 1963. Messiah initiated a satellite campus in Philadelphia in 1968 and in 1983 launched Messiah College-Africa in Nairobi, Kenya, leading to the chartering of Daystar University in 1993. During the past three decades, the College significantly increased the number of majors offered in the liberal arts and introduced degree programs in several applied areas. Messiah College now offers more than 80 undergraduate academic majors. In 2009, Messiah also began offering quality graduate programs in fields such as counseling, education and nursing through a flexible, hybrid format of traditional and online courses.

Growth in the student body and in facilities accompanied growth in the academic program. Contributing to the growth in number of students was the College’s policy, declared in its earliest official statements, of welcoming students from all denominations and church traditions. From a first-year total of 12 students, the student body has grown to more than 3,000 undergraduate and graduate students, representing over 60 denominations. Facilities increased from a single building to a main campus of 471 acres in Grantham, near the state capital and conveniently located to urban Philadelphia, Baltimore and Washington, D.C.

Until 1972, Messiah College was owned and operated by the Brethren in Christ Church. Today, the College and Church share in a covenantal relationship, through which each of these two communities works to further the ministry of the other. Legal control rests with a self-perpetuating Board of Trustees.

Two presidents held notably long terms of office. C. N. Hostetter, Jr. (president from 1934 to 1960), directed the College through the difficult years of the Depression and guided its academic life into the beginning of a four-year liberal arts college. D. Ray Hostetter presided for 30 years (1964–1994) over an expansion that occurred on virtually every level of Messiah College’s life.

From 1994–2004, the College had the benefit of the inspired leadership of Rodney J. Sawatsky who positioned Messiah as a nationally ranked institution characterized as academically rigorous and unapologetically Christian.

In December 2004, the College celebrated the appointment of its eighth and current president, Kim S. Phipps. During Dr. Phipps’ presidency, Messiah has continued to innovate, develop, and enhance academic programs, campus facilities and resources and its national profile as the College enters its second century.

Even with the changes of past years, various elements in the history of Messiah College have remained constant – an emphasis on a commitment to academic excellence, education for service, hospitality towards students and educators from a diversity of backgrounds and an endeavor to make Christ preeminent in all of life.

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## Foundational Values

The College motto “Christ Preeminent” points to Jesus Christ as both the ground for personal salvation and the pattern for life and service. Since its founding, Messiah College has affirmed a set of values derived from the Anabaptist, Pietist, and Wesleyan traditions. The following five ideals summarize how Messiah College defines its distinctive Christian character:

**Unity of Faith, Learning, and Life.** This principle affirms the wholeness of persons and the unity of every dimension of life as revealed in the incarnation of Jesus Christ. It also emphasizes that all truth is God’s truth and thus avoids the creation of false dichotomies in thinking and in living. Messiah College affirms a united Christian worldview and lifestyle that joins revelation with rational inquiry and that integrates believing with doing. Accordingly, Christian “calling” and vocation is broadly understood. All of our gifts, talents, and interests are to be nurtured as acts of praise towards God while serving humanity and all creation.

**Importance of the Person.** Every person is to be respected and valued, regardless of gender, race, nationality, status, or position, because each person is created in the image of God. Freedom and responsibility are primary characteristics of being human, and we must take care to protect each other’s freedom while encouraging responsible living. As free agents, individuals make choices that determine the contours of their lives, and they bear responsibility for those choices. Individuals are accountable for their manner of response to God’s grace. Similarly, every person must be responsible in their pursuit of truth, and yet be free to develop their own understandings as they integrate their formal studies with their broader experience and faith.

**Significance of Community.** Our understanding of the Church as the body of Christ and our recognition of humanity’s interdependence cause us to value community. In community, we voluntarily share our lives with each other, we care for each other, we rejoice and suffer together, we worship together, and we offer counsel to each other. While every community develops rules, in Christian communities such rules should always be humane, recognizing the impact they have on the lives of those affected, and should help us appreciate each other’s gifts and talents. In any community there will be tensions that require mutual give and take, but a Christian spirit of care and support provides the security needed to accept one’s own weaknesses and those of others. The ultimate goal of every Christian community should be to help us live more faithfully as disciples of Christ.

**Disciplined and Creative Living.** The mature Christian life is characterized by a delicate mix of discipline and creativity. We are called to a life of devotion and obedience to the Gospel. Such discipleship demands of us self-control and sacrifice and requires us to examine all our wants and desires in the light of God’s holiness. The Gospel also calls us to celebrate the goodness of creation and to live our lives in active engagement with this ever-changing world in which God has placed us. In order to fulfill

these tasks, we must be both creative interpreters of the world around us and creative actors in that world. Creativity and discipline are complementary characteristics of the mature, joyful Christian life.

**Service and Reconciliation.** Central to the Gospel is the work of reconciling individuals with God, with each other, and with all of creation. God has called us to be active agents in this work, as we are empowered by the Holy Spirit and bear the fruit of the Spirit within us: love, joy, peace, patience, kindness, generosity, faithfulness, gentleness, and self-control. Prepared in this way, we are compelled to share the redeeming Gospel of Jesus with those around us; to build bridges of understanding and peace across the dividing lines of race, class, age, gender, religion, and ethnicity; to demonstrate the love of God in service to others; to open our hearts to the poor and needy; and to work for justice wherever injustice prevails.

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### College-Wide Educational Objectives

Messiah College is dedicated to helping students blend faith with learning in service to the world. As a Christian college of the liberal and applied arts and sciences, Messiah College advocates a bold and disciplined exploration of the world and expects its students to both embrace and participate in that endeavor. At the same time, Messiah seeks to instill in its students a sense of intellectual humility, recognizing that even the most learned persons have limited insight and therefore need the insights of others.

The paradigm under which Messiah's educational programs are designed is that of liberal education. By raising the right questions, exposing students to multiple perspectives, and encouraging critical thinking, Messiah seeks to enable its students to respond with maturity to the world's complexities. In addition to nurturing these intellectual skills, the College encourages its students to apply their knowledge to the needs of the world—as servants, as leaders, as agents of reconciliation.

Messiah College offers two academic undergraduate degrees: the Bachelor of Arts (B.A.) and Bachelor of Science (B.S.). When combined with purposeful cocurricular activities, these programs of academic study enable students to gain a perspective of who they ought to be and provide them with the abilities to live effectively as intellectually competent, socially responsible citizens of the world.

Messiah College has a historic relationship with the Brethren in Christ Church. Now expressed in a covenant agreement, this heritage informs the College's programs and activities. The distinctives of this heritage, which is rooted in the Anabaptist, Pietist, and Wesleyan traditions of the Christian faith, include emphases on justice-seeking, peacemaking, reconciliation, evangelism, and service. Accordingly, the College encourages and prepares students to act as servants who extend the gifts of grace and peace to a broken world. The College also recognizes the need for each individual to appropriate the Christian faith and express that commitment in daily living within a community.

While we realize that learning is a lifelong endeavor, Messiah College expects its graduates to have made progress toward the fulfillment of the following seven objectives (see "Objectives" below). From a practical standpoint, these seven objectives and

their subpoints are both interdependent and overlapping, i.e., while they may be visualized discretely and assessed independently, they are nonetheless connected to one another in numerous ways and will often be pursued in multiple program areas. While the relationships between these seven objectives might be articulated in a variety of ways, they are listed and ordered with a particular rationale in mind.

#### Objectives

**1. To develop those abilities essential to liberal education.** These abilities include:

- a. Thinking logically and creatively, analytically and synthetically, and abstractly and concretely;
- b. Reading, observing, and listening carefully and critically;
- c. Writing and speaking clearly and coherently;
- d. Appreciating the aesthetic dimensions of life;
- e. Functioning effectively in quantitatively and technologically oriented cultures;
- f. Accessing, evaluating, and using information effectively and ethically;
- g. Pursuing the process of learning as a lifelong pursuit;
- h. Balancing commitment with humility.

**2. To gain knowledge common to liberal education.** This includes:

- a. Developing basic understanding of geographical, social, political, and religious realities throughout the world;
- b. Learning significant aspects of the Western social, cultural, political, religious, and philosophical heritage;
- c. Learning significant aspects of at least one non-Western culture;
- d. Becoming aware of how people of different cultures perceive the world, interpret reality, and make meaning;
- e. Learning the methods, philosophies, and basic principles of the mathematical, natural, and social sciences;
- f. Learning the traditions and methods of the arts and the humanities;
- g. Making connections (i.e., probing relationships, including congruencies and contradictions) between learnings acquired in a–f above.

**3. To become biblically literate and theologically reflective.** This includes:

- a. Developing knowledge of and about God as revealed in Jesus Christ;
- b. Gaining knowledge of the Bible's content and themes, including the biblical witness on service, leadership, and reconciliation;
- c. Learning about historic Christian beliefs, practices, and ecclesiastical expressions, and the particular emphases of the Anabaptist, Pietist, and Wesleyan traditions;
- d. Becoming familiar with contemporary theological dialogue and biblical scholarship;
- e. Recognizing the influence of culture upon the Christian faith, and appreciating the insights that other cultures contribute to Christian theology and practice;
- f. Acquiring the ability to articulate and evaluate one's faith;
- g. Exploring various connections between faith and learning.

**4. To attain specialized knowledge and abilities in at least one area of study.** This includes:

- a. Understanding the foundational content and philosophical assumptions of one's specialized area of study;
- b. Engaging in scholarship in one's specialized area of study;

- c. Developing proficiency in one's specialized area of study sufficient to pursue a career and/or continue education at the graduate level;
  - d. Gaining an awareness of options for employment, voluntary service, and/or graduate education in one's specialized area of study;
  - e. Articulating how faith connects to one's specialized area of study and to potential career options in that area of study.
- 5. To develop an understanding of one's identity and Christian vocation.** This includes:
- a. Developing an awareness of and concern for the whole person, including physical, emotional and spiritual wellness;
  - b. Acquiring an appreciation for how one's faith, community, and culture impact one's identity and sense of meaning;
  - c. Developing a sense of vocation that includes but transcends career choice;
  - d. Gaining a realistic sense of one's distinctiveness, including one's interests, abilities, and limitations;
  - e. Discerning and reflecting on the role(s) one assumes in groups, including one's faith community.
- 6. To develop the intellect and character necessary to express Christian commitments in responsible decisions and actions.** This includes:
- a. Developing individual and corporate spiritual disciplines that nurture personal faith and compassion for others;
  - b. Assessing cultural values and ethical traditions in light of the biblical witness;
  - c. Applying the insights of Christian theology and ethics to complex social and personal issues;
  - d. Understanding the nature and causes of violence in the world and the means for promoting peace;
  - e. Recognizing the implications of living in an increasingly interdependent world;
  - f. Evaluating institutional policies and social/cultural practices on the basis of whether they promote peace, justice, and reconciliation;
  - g. Gaining an appreciation for cultural and ethnic diversity.
- 7. To become servants, leaders, and reconcilers in the world.** This includes:
- a. Practicing a lifestyle based on Christian commitments;
  - b. Developing a sense of civic responsibility and commitment to work with others for the common good;
  - c. Developing the courage to act responsibly and redemptively in a complex world;
  - d. Practicing good stewardship of economic and natural resources;
  - e. Acting in ways that respect gender, cultural, and ethnic diversity;
  - f. Making decisions that reflect an ethic of service, a concern for justice, and a desire for reconciliation;
  - g. Recognizing the relevance of Christian faith to all of life.

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## Christian Tradition

Messiah College was founded by educators with strong denominational concerns; but the College has never been narrowly sectarian. We welcome students without regard to denominational affiliation. The College follows the historic Christian tradition and has adopted the Apostle's Creed as an expression of the essential core of Christian commitments at the College.

### *Apostles' Creed*

I believe in God the Father almighty, Creator of heaven and earth. I believe in Jesus Christ, God's only Son, our Lord, who was conceived by the Holy Spirit, born of the Virgin Mary, suffered under Pontius Pilate, was crucified, died and was buried. He descended to the dead. On the third day he rose again, ascended into heaven, and is seated at the right hand of the Father. He will come again to judge the living and the dead.

I believe in the Holy Spirit, the holy catholic Church, the communion of saints, the forgiveness of sins, the resurrection of the body, and the life everlasting. Amen.

In campus worship services the College also frequently uses a confession which expresses the faith orientation of the College in a nonsectarian manner, highlighting the specific emphases of the Anabaptist, Pietistic, and Wesleyan traditions of the Christian faith.

### *Confession of Faith*

We believe in the triune God—Father, Son, and Holy Spirit—who created and sustains the universe, and who desires to redeem us and all creation.

God creates each of us in the very image of God to live in loving relationships: free, responsible, and accountable to God and each other for our decisions and our actions.

God speaks to us in many different ways, times, and places but is uniquely revealed to all the world in Jesus of Nazareth, who was fully human and fully divine.

God forgives our sins, renews our hearts and minds, and calls us to join in the work of reconciliation by grace through faith in the life, teachings, death, and resurrection of Jesus Christ.

God bestows on us the Holy Spirit who leads us to repentance, instructs us in righteousness, and empowers us to live joyfully as disciples of Christ, as servants of others, and as caretakers of the created order.

God calls us to unite in the Church as a visible community of believers which celebrates God's grace in its worship and bears witness to the truth of the Gospel through its being, doing, and speaking.

God gives us the Bible as the inspired, trustworthy, and authoritative Scripture to reveal God's ways and purposes, to nourish our minds and souls, and to instruct us in how we ought to think and to live.

God instructs us to pursue the kingdom of peace, righteousness, and justice which ultimately will prevail with the return of Christ and assures us that those judged faithful will share resurrected life with God and all the saints forever.

We praise the one God—our Creator, Redeemer, and Sustainer—who has called us to personal faith and new life in Christ and to so order our lives that they may demonstrate the truth of our confession. Amen.

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## **Community Covenant**

### **All of Life Under the Lordship of Christ**

In the motto “Christ Preeminent” the Messiah College community affirms that life draws meaning from submission to Christ and service to others. Our philosophy statement affirms the triune God as the creator of all that is, the source of all truth. As beings created in the image of God, we have special responsibilities and challenges. In our community of believer-scholars we affirm the interrelatedness of what we believe, the way we live, and the way we learn. Our search for truth and commitment to Christ connect us not only to each other but also to God’s creation and God’s people throughout history.

### **Freedom and Obligation**

Within this community, it is not easy to find the right balance of challenge and support for each individual. Personal freedom and community obligation sometimes seem to be in tension as individuals work to integrate belief and behavior. This growth-producing process benefits from the dynamics of a diverse but concerned community, as well as the sense that the lordship of

Christ and a commitment to being part of the body of Christ are key values to guide us. With the task before us of searching for truth and promoting personal growth, we join together in the hope of achieving more together than we could separately. We agree to pursue the obligations and challenges of community membership with integrity, respecting our institutional heritage and practicing biblical accountability.

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## **Resources**

Messiah has enjoyed the steadily growing support of its alumni and a broad coalition of friends of Christian higher education. These include a wide variety of individuals, corporations, Christian churches, and the central Pennsylvania cultural and business community. As a result, Messiah College maintains a stable financial position and balances its budgets, and consistently generates positive operating results. The College’s total net worth, including endowment and trust funds, exceeds \$225 million. Such support and stability is reassuring in a day when rising costs threaten to erode the financial base of many educational institutions.



# FACILITIES and CAMPUS LIFE

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## The Grantham Campus

Grantham, Pennsylvania, ten miles southwest of the capital city, Harrisburg, provides Messiah College with a suburban setting and convenient access to the urban centers of Harrisburg, Philadelphia, Baltimore, and Washington, D.C. Since 1910, the Grantham Campus has been developed into a 400-acre site with modern, attractive facilities accommodating academic, social, religious, and athletic activities.

Our teaching faculty, the most valuable resource at Messiah College, numbers approximately 175 full-time men and women, plus about 140 part-time members. Coming from a multitude of backgrounds, they represent nearly 150 graduate schools in several countries and many denominational affiliations. The total campus employment is about 750 employees.

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## Academic Facilities

**Boyer Hall** is home to the Boyer Center, the School of the Humanities and the Departments of Education, Human Development and Family Science, Psychology, Social Work, and Sociology, Anthropology and Criminal Justice. Along with classrooms and faculty offices, the building houses a state-of-the-art cinema for film studies and a computerized language lab.

**Climenhaga Building** is home to the School of the Arts. The building houses a lecture hall/theatre, a small blackbox theatre, a dance studio, practice rooms, art studios, darkroom, theatre work space, and faculty offices. The building's Aughinbaugh Art Gallery prominently displays artwork of students and well-known artists for community viewing.

**Calvin and Janet High Center for Worship and Performing Arts** includes Parmer Hall, a 900 seat performance/worship hall; High Foundation Recital Hall with a capacity seating of 150; choral and instrumental rehearsal rooms; state of the art recording studio; and practice rooms, as well as and other studios and faculty offices.

**Frey Hall** provides educational space for the Departments of Engineering; Management and Business; Information and Mathematical Sciences; as well as some Visual Arts programs. In addition to classroom space, there is a lecture hall, art studios, computer, engineering and physics labs, and faculty offices

**Hoffman Hall** provides office space for Faculty Services, Information Technology, and the Procurement Department.

**Jordan Science Center and The Oakes Museum** is the home of the Department of Biological Sciences and the Department of Nutrition and Dietetics. This state-of-the-art science facility provides technologically advanced science laboratories and equipment, faculty offices, and classrooms. The Museum showcases the College's outstanding treasury of large mammal, insect, seashell, and bird collections and serves as a resource to central Pennsylvania, offering visitors a close look at the wonders of creation.

**Kline Hall** provides space for the Departments of Nursing and Chemistry and Biochemistry programs, with general classrooms, science and nursing labs, as well as faculty offices. A state of the art simulation lab is a recent addition to the Nursing facilities.

**Larsen Student Union** opened in the spring of 2004 and houses student government offices, is the home to *The Pulse* the student media hub for students, a casual dining facility, and both indoor and outdoor space for student functions and socializing.

**Old Main** houses the Office of the President and most of the administrative offices for the academic program, operations, finance, college development, as well as the Publications and Public Relations offices.

**Murray Library and Learning Commons** provides a wide variety of learning resources in an architecturally striking atmosphere. The library houses more than 470,000 items including books, periodicals, online databases and journals, and audio/visual media. In addition, the library houses the media center, including audiovisual production space, a film production studio, a computer laboratory, and the archives of the College and Brethren in Christ Church. Disability Services and the Writing Center moved into recently renovated space; now educational services to support student learning are located in one facility.

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## Campus Center

The **Eisenhower Campus Center (ECC)** houses an auditorium/gymnasium which seats up to 2,200 for Chapel services, The Campus Store and Textbook Express, student mailboxes and Post Office, a 650 seat dining room, a private dining room, the Falcon snack shop, locker rooms, the Alumni Office, and administrative offices. The Career Center, also located in the Eisenhower Campus Center, guides students in the selection of a career and search for employment.

With several local, regional and national awards to its credit, Messiah College's Dining Services has a reputation of serving nutritious, appetizing and attractive meals. Students living in campus residence halls will be assigned the Dining Dollars meal plan. Students in apartment residences and commuters would benefit from purchasing the meal plan or Falcon Dollars for all their Dining purchases. Unused Dining Dollars from the fall semester will roll into the spring semester and any remaining Dining Dollars at the end of the academic year will be credited to the students account. Messiah College dining locations include the Lottie Nelson Dining Room, The Falcon, The Union Café and the Café Diem.

All students are assigned a post office box on the main floor of the Campus Center. The College maintains a daily exchange of mail with the local post office, Mechanicsburg, PA 17055.

The Falcon Exchange is located on the second floor of ECC. This office is responsible for issuing Falcon Cards to employees and students, cashiering services, and student parking assignments. The Falcon Card is used for identification as well as a declining-balance debit card that can be used across campus and is a student's access card into their residence hall.

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## Athletic Facilities

The *Sollenberger Sports Center* is home to the Department of Health and Human Performance and provides exceptional recreational and intercollegiate athletic facilities. This 90,000-square-foot complex houses three racquetball courts, a large arena with four basketball courts, an indoor track and fitness center, a natatorium including an eight-lane swimming pool with a separate diving well, classrooms, faculty offices, locker rooms, and wrestling room. Eisenhower Campus Center provides space for most indoor intercollegiate contests, and houses a weight room and sports medicine laboratory.

Outdoors, the *Starry Athletic Complex* includes a lighted artificial turf field for field hockey and lacrosse, a lighted soccer stadium with bleacher seating for 2,000, a newly renovated eight-lane all-weather metric track, ten tennis courts, a baseball field, a softball field, and irrigated practice fields.

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## Campus Life

Campus life at Messiah College encourages students to stretch and grow intellectually, spiritually, personally, and vocationally. Ultimately, students bear much of the responsibility for their personal growth. Among the marks of maturity are the ability to be self-directed, a willingness to surrender individual wishes for the benefit of the community, and the ability to pursue long-term objectives. Using their gifts, students not only gain from the Messiah College community, but also contribute to it.

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## An Engaged Community

To encourage students to develop into well-rounded men and women, Messiah intentionally shapes the campus environment and provides a range of high-quality learning experiences both inside and outside the classroom. The College seeks to provide a learning experience that is both nurturing and challenging. Individual freedom is best expressed alongside social responsibility, and core commitments are balanced by an openness to diverse perspectives.

**A Community with Common Commitments and Diverse Perspectives.** As a Christian community of learners, we strive to make Christ preeminent as we pursue academic work, build meaningful personal relationships, shape personal convictions, and strengthen awareness of social responsibility. Our primary commitment is to God. We affirm that all life draws meaning from submission to Christ and service to others. Because of the importance of knowing God and God's Word, we commit ourselves to individual and corporate spiritual disciplines. As teachers and learners we see our activities as acts of service and honor to God. We respond in love to God and to those God has created. As God's stewards on earth, we strive to put biblical teaching into practice in the way we relate to others and to the world around us.

Within our common commitments we celebrate the diversity of Christian perspectives and Church traditions represented by our students, educators, administrators, and trustees. We encourage everyone to understand and appreciate these differences. Furthermore, we discuss and debate multiple perspectives in a spirit of Christian care and civility as we pursue clarity and truth.

We also maintain a common commitment of respect for all

people. We embrace within our faculty and student body men and women of various races and ethnicities and from diverse denominations and church traditions. As a College we hold that prejudice based upon race, ethnicity, economic class, gender, disability, or nationality is wrong. We view discrimination as contrary to the biblical concept of justice, and we expect students to make sincere efforts to avoid such discrimination and to base their attitudes and actions upon the principles of Christian love and equality in the eyes of God.

**A Community of Responsible Learning and Living.** As an academic community, Messiah supports an environment where learning pervades all activities. We embrace liberal learning, believing that all truth is God's truth—revealed by God to be understood and applied by each of us. We approach all intellectual questions in a spirit of humility, recognizing that each individual's knowledge, understanding, and wisdom are finite. We expose our students to many different views and perspectives which enable them to respond with maturity to the complexities of our world.

We also have a commitment to the world around us and to our College community. We encourage and prepare our students for lives of service, reconciliation, and peacemaking both locally and around the world.

We seek to provide an atmosphere where responsible learning and living are encouraged. Because of this commitment, Messiah College expects students to adhere to certain standards of personal conduct. We have set these standards out of consideration for biblical principles, civil law, a desire to advance learning, and our need to function effectively and efficiently.

In order to secure the benefits of college life for the entire College community, Messiah prohibits indulgence in harmful practices including the use of alcohol, tobacco, and illegal drugs. Although individuals may hold differing opinions about some of these standards, the College asks that students and their visitors abide by these expectations. The College assumes that students who accept admission will have carefully considered campus expectations and decided that they can learn and live happily within these guidelines for community living. Elaborations on these and other College expectations, as well as processes for addressing concerns, can be found in the annually updated *Student Handbook* posted on the College's Internet site.

**A Community for Developing Faith.** A central aspect of our mission is to educate students "toward maturity of Christian faith." As a Christian academic community, we affirm Jesus Christ as our ultimate norm for goodness and truth. We affirm an authoritative view of the Scriptures as God's Word, and we require all students to complete courses in biblical studies and theology. Though the College is not a church, we are still an active worshipping community, and students are required to attend campus chapel services regularly.

We expect the faith of our students, just like the faith of all who work at the College, to be a developing faith. The College provides students with a safe yet challenging place to explore their faith and to ask difficult questions. We cultivate an environment which nurtures personal faith in God and expressions of devotion to God.

We encourage active discussion of all areas of faith within a supportive Christian academic environment. The Department of College Ministries, in partnership with other members of the campus community, supports students' Christian spiritual formation through campus-wide programs, small group sessions, and individual mentoring.

**A Community of Transformation.** We expect our students to mature, grow, and change—indeed to “be transformed by the renewing of their minds”—throughout their undergraduate studies. We affirm the interrelatedness of what we believe, the way we live, and the way we learn. Because growth does not occur in isolation, we have chosen to be primarily a residential college. The experience of living with others who are both similar to us and different provides the context for interpersonal growth and learning. Our faculty challenge and nurture students toward growth and maturity in many ways. We foster a campus learning environment that supports and advances classroom learning. The Office of Residence Life coordinates residence hall programs that address holistic education—for mind, body, heart, and soul.

**A Community of Service.** Because Messiah's distinctives include justice, peacemaking, reconciliation, and service in our world, the College prepares students to act as Christian servants who extend the gifts of grace and peace to a broken and needy world. The Agapé Center for Service and Learning organizes and supports numerous student activities for service locally in Harrisburg, regionally throughout Pennsylvania, and globally. The College also offers a Service-Learning program in which a summer service experience is complemented with two academic courses. Many individual courses include active service components as well. The Career Center and Internship Center also offer interested students service-oriented internships and employment opportunities with local non-profit agencies.

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## Chapel

Chapel at Messiah College is a central expression of our identity as a community of Christians with a deep commitment to spiritual growth and academic excellence. Chapel is an opportunity for exposure to various forms of worship, speakers and ideas which are planned with the intention of affirming our common commitments while they both reflect and challenge individual preferences in style. Because we believe chapel provides an important role in spiritual formation, students are required to attend 24 chapels each semester.

Messiah College offers a variety of different chapel experiences to connect with specific interests and tendencies of students. Common Chapels, for the entire student body, are held in Brubaker Auditorium on Tuesday and a few Thursday mornings. Elective Chapels which are based on specific interests are held on the remaining Thursday mornings at the regular chapel time. Alternate Chapels are services held at other times and planned by various student organizations and special interest groups. Chapel credits can also be earned through designated leadership training and service opportunities, as well as book studies and other approved opportunities.

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## Residence Life

The College offers both traditional residence halls and apartment-style residences on campus. Staffed by trained, full-time

professional Residence Directors and Student Resident Assistants, these facilities provide an environment, which fosters personal growth and responsibility, as students practice living in Christian community. Policies for student residences are provided in the *Student Handbook*.

The Grantham Campus features the following major residences. Each is equipped with washing machines and dryers, free to students. The halls have security system that requires students to use their ID card to gain entrance to the building and the floors.

*Hess Hall*, an all-female hall and *Miller Hall*, a co-ed hall, were both renovated in 1996 and are joined by *Grantham Hall*, which was constructed the same year. Nearly 500 students occupy these buildings and enjoy facilities including floor lounges, a computer lab, and the large North Complex lounge commonly referred to as “The Fishbowl.”

*Naugle* and *Witmer Residences* each provide traditional housing for approximately 300 first year students. Both have large lounges on each floor in addition to a recreation area and central lounge. *Naugle*, *Witmer* and *Bittner Residences* house first year students as part of the College's commitment to the First-Year Experience (FYE). Special programming is conducted to help students transition to the campus and college life

*Smith*, *Fry*, *Mellinger*, and *Kelly Residences* are apartment-style buildings equipped with one- and two-bedroom units and are reserved for juniors and seniors. Smith Apartments were renovated in 1999, Fry in 2007, and Kelly in 2012.

*Sollenberger*, housing upper class students, and *Bittner*, housing first-year and transfer students, were both renovated in 1997. Together with *Mountain View Residence*, an upper class building, the three buildings create the South Complex and provide housing for approximately 600 students. The residences include floor lounges, a recreation area, and a computer lab.

The College has several smaller satellite buildings which are used as common-interest student residences. The Harrisburg Institute, located at the corner of Dewberry and Blackberry Streets, Harrisburg, provides residential housing for 23 students.

College residence halls open for Welcome Week in the fall and close during Christmas Break. The privilege to remain in campus residences during other breaks requires the approval of the Residence Life staff and may require an additional fee. The College does not insure student belongings. Students are encouraged to obtain their own property insurance for personal belongings brought to the College

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## Resources for Campus Involvement

With a population of over 2,900 students, the College recognizes that students bring many interests and abilities. Messiah seeks to provide programs and activities which foster personal and social growth, contribute to community life, and support the College's learning and living environment.

### Athletics and Recreation

Recreational and intercollegiate sports programs provide opportunities for students to compete and to get together outside the classroom.

**Adventure Programs.** Events include caving, rock climbing, canoeing, team-building initiatives, paddling, and spring break trips. Staff and student leaders focus on proper technical and group facilitation skills. Understanding the significance of group process, God's creation, and the challenge at hand are all integral elements of the program. These experiences provide an opportunity for students to move outside of their comfort zone and to holistically pursue the issues of leadership, identity, and spirituality.

**Club Sports.** Club sport organizations at Messiah College are student organizations whose members meet regularly to pursue an interest in sport or physical activity that includes outside competition. Messiah College currently offers the following club sports: Bass Fishing, Cycling, Men's Volleyball, Women's Field Hockey, Women's Soccer, Men's Ice Hockey, Men's Soccer, and Ultimate Frisbee.

**Intercollegiate Sports.** A member of the National Collegiate Athletic Association Division III, Messiah College fields 22 teams that compete within the Commonwealth Conference of the Middle Atlantic Conference. Men participate in swimming, cross country, soccer, basketball, wrestling, baseball, tennis, golf, lacrosse, indoor track and field, and outdoor track and field. Women participate in swimming, cross country, field hockey, soccer, volleyball, basketball, tennis, softball, lacrosse, indoor track and field, and outdoor track and field.

**LOFT Facilitators.** Each year, students are selected to serve as LOFT Facilitators. These students serve as facilitators in experiential education settings including adventure programming for existing groups and teams. This group of students is trained and mentored by the Assistant Director of Student Involvement and Leadership Programs.

**Music and Theatre.** Music ensembles include Brass Choir, Chamber Ensembles, Choral Arts Society, Symphony Orchestra, Concert Choir, Flute Choir, Handbell Choir, Jazz Ensemble, One College Ave, Men's Ensemble, Percussion Ensemble, Symphonic Winds, United Voices of Praise Gospel Choir, and Women's Ensemble. Theatre Messiah presents five to six fully-mounted productions per year.

**Orientation Team Leaders.** These students are selected based on their prior leadership experiences, academic record, and ability to serve as a mentor to first-year students. Typically, Peer Leaders are juniors and work closely with First Year Seminar instructors to provide support for new students in their transition to college.

**Recreation.** Messiah's campus provides opportunities for many outdoor activities, including hiking, canoeing, fishing, and birdwatching. Indoors, the Sollenberger Sports Center offers an indoor pool, racquetball and basketball courts, and a fitness center. The fitness center offers an indoor track and exercise machines. During the winter, the surrounding area offers downhill skiing.

**Rec-Sports.** The Office of Rec-Sports provides students, employees, and alumni with the opportunity to participate in a variety of competitive recreational sports in a safe environment. Programming includes leagues and tournaments in both team and individual sports as well as co-rec and gender-specific activities.

#### **International Student Programs**

International Student Programs seeks to create a safe space that provides support and connections for international, missionary, and third culture students during their transition to the American college campus culture and to Messiah College. Programs and services include:

**F-1 International Student Advising** informs and educates F-1 international students about U.S. government regulations and assists them in achieving positive results in maintaining their F-1 status.

**International and Missionary/Third Culture Student Orientation** is an intensive educational and spiritual acculturation experience for international students and the children of missionaries and other professionals living abroad who have recently re-arrived in the United States. Orientation generally includes activities related to educational advising, housing, and working requirements.

**Academic Support** is offered to international students in collaboration with students' department advisors. In addition, new international students arriving from abroad for the fall semester enroll in a 1-credit course called Adaptation to American Education designed to provide on-going, in-depth orientation regarding cross-cultural adaptation to America in general, and to the American classroom (as experienced at Messiah College) in specific.

**Friendship Families** provide a mutually beneficial friendship between Messiah College's international and third culture students and individuals or families from the Messiah and surrounding Christian community. International Student Programs matches one to two participating students with a family or individual, and plans special events to encourage relationship formation.

**Rafiki House** is special-interest housing for students committed to living in community focused on international diversity. The house also provides an intentional space for the international students and the children of parents abroad to find each other, fellowship, and hang out.

#### **Multicultural Student Programs**

Multicultural Programs advance the overall mission of Messiah College and the Division of Student Affairs by providing educational programs, services, and resources that promote racially, ethnically, culturally, and globally diverse, safe, and transformative learning environments.

Student organizations supported by Multicultural Programs include: The Multicultural Council, African Student Union, Asian Student Association, Black Student Union, Justice and Racial Reconciliation in Society (JARRS), International Student Association/MuKappa, La Alianza Latina, and the Middle Eastern Students Association.

### **Student Government**

Students also have many opportunities to develop leadership skills on campus. The Student Government Association (SGA) has a strong history and tradition of representing the student body and developing the leadership of students. Students annually elect Student Government officers. The SGA President's Cabinet, Student Senate, Multi-cultural Council and Peer Review Board communicate student needs to College leaders and are active participants in College governance.

SGA represents student concerns to the College Administration. Specifically, SGA coordinates student representation to College committees, allocates the student activities fee to clubs and organizations and charters student clubs and organizations. Organized through the Student Senate, Committees and Councils, SGA works hard to represent the needs and concerns of all students.

### **Student Organizations**

Messiah College recognizes that students have many interests and abilities. Messiah seeks to facilitate programs and activities which foster personal and social growth and enhance vocational commitments. College programs seek to contribute to community life and support the College's learning environment. Recognized student organizations include the following:

#### ***Faith Related***

Acclamation Dance  
Fellowship of Christian Athletes (FCA)  
Grace College Fellowship  
Newman Club  
Nurses Christian Fellowship  
Powerhouse Band  
Seek His Face Ministries

#### ***"The Pulse" Student Media Lab***

The Clarion  
The Pulse website  
The Swinging Bridge  
WVMM

#### ***Service and Missions***

Circle K International  
Human Rights Awareness Coalition  
Outreach Teams  
Rotary Club of Messiah College  
Service Trips  
World Christian Fellowship

#### ***Academic and Honorary Organizations***

American Choral Directors Association  
Art League  
Athletic Training Student Association  
Criminal Justice Club  
Earthkeepers  
French Club

History Club  
Math Problem-Solving Group  
MC Council on Family Relations (MCCFR)  
Med Aware  
Messiah College Education Association  
Messiah College Engineering Society  
Music Educators National Conference  
National Art Education Association  
Nurses Student Association  
Phi Alpha NHS, Social Work NHS, Lambda Psi Chapter  
Philosophy Club  
Pre-Physical Therapy Club  
Psychology Club  
Sigma Zeta  
Social Work Club  
Society of Women Engineers  
Sport Management Society  
Student Nutrition Awareness Coalition  
Students in Free Enterprise (SIFE)

#### ***Special Interest Organizations***

Active Minds at Messiah College  
African Student Union  
ANIME  
Asian Student Association  
Black Student Union  
Colleges Against Cancer  
Democrats  
Eyas  
Film Society  
Flying Club  
Justice and Racial Reconciliation in Society (JARRS)  
International Student Association  
Invention Club  
Investment Club  
La Aliansa Latina  
Messiah College Bass Team  
Messiah Students ProLife  
Middle Eastern Student Association  
Outdoors Club  
Racquetball Club  
Republicans  
Ski and Ride Club  
Student Activities Board (SAB)  
Swing Club

#### ***Sports Clubs***

Bass Fishing  
Cycling  
Men's Volleyball  
Women's Field Hockey  
Women's Soccer  
Men's Ice Hockey  
Men's Soccer  
Ultimate Frisbee

# ADMISSIONS

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## Admissions Policy

Students who desire a higher education to develop their intellect, character, and Christian faith are invited to apply for admission to Messiah College. Application forms and informational brochures may be requested from the Admissions Office and are also available online at [www.messiah.edu](http://www.messiah.edu).

The Admissions Office evaluates applications on the basis of each student's preparation for college-level courses, the relative strength of their academic program, standardized test results (Scholastic Aptitude Test [SAT] or American College Test [ACT] scores), the application essay, and the program of study desired.

The Admissions Committee seeks to admit those applicants who are most likely to benefit from and contribute to the Messiah College community. Once all application documents are received, admission decisions are processed on a rolling or continuous basis (beginning on September 15). Those students who wish to be considered for the Trustees' and President's Scholarships and entrance to the College Honors Program must be accepted by January 15. Students wishing to be considered for the Martin's Multicultural Scholarship must also be accepted by January 15.

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## High School Students (U.S. Citizens)

Students completing a course of study at a public or private high school in the United States should follow the steps listed below.

1. Complete an application form and submit it to the Messiah College Admissions Office. The application fee is \$20. The application fee is waived for all who apply before November 15. You may request an application from the Admissions Office or access and complete our application online at [www.messiah.edu](http://www.messiah.edu).
2. Request that an official report of your high school transcript and your scores on the SAT or ACT be sent to the Admissions Office. If you have not yet taken either of these examinations, your high school guidance counselor can provide you with information concerning registration procedures, test dates, and locations. Official transcripts can be submitted electronically by guidance counselors via Parchment, a secured site.

Applicants must have graduated from an accredited senior high school or the equivalent (homeschooled students please refer to the next section). Course units from grades nine through twelve should include the following:

- 4 units in academic English
- at least 2 units (preferably 3 or more) in academic mathematics
- at least 2 units (preferably 3 or more) in academic natural science
- 2 or more units in academic social studies
- 2 or more units in foreign language
- 4 units in additional electives.

The academic requirements for admission listed above are minimum requirements. Students applying for admission to Messiah College are encouraged to enroll in as many academic and college preparatory courses as their high school schedule will allow. Most students who apply exceed the requirements as listed.

3. Preregistration Deposits. To accept your offer of admission, submit a \$200 preregistration deposit. Half of the fee (\$100) will be applied to your first semester account and half to second semester. The College's policy regarding deposits follows and is in accordance with the principles of good practice of the National Association of College Admissions Counselors.
  - A student should pay a deposit when confident of his/her decision to attend.
  - Deposits from students should be received by May 1 for the fall semester and December 1 for the spring semester to reserve a place in the student body. Deposits received after the May 1 or December 1 deadlines will be accepted if space is still available. If space is not available, the deposit will be returned and the offer of admission withdrawn/deferred until a later semester. If space is available, the deposit will be accepted and a space will be reserved; however, should the student subsequently cancel his/her enrollment, the deposit is non-refundable.
  - This deposit is refundable to students who cancel their enrollment, provided the Admissions Office is notified by May 1 for the fall semester and by December 1 for the spring semester.
  - Checks should be made payable to Messiah College. Please include the student's name in the check memo area. Deposits may also be submitted online at <https://commerce.cashnet.com/messiahdepositu>

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## Home-Schooled Students

Messiah College welcomes applications from homeschooled students. The academic requirements for admission are the same as those listed in the previous section.

Along with your completed application and application fee, it is important that you submit a comprehensive transcript of your senior year academic program as well as your courses and course evaluations of the ninth through eleventh grades. If you do not receive grades, please explain your method of evaluation of course content. If you have an independent evaluation of your academic progress by a qualified educator, please include that with your transcript. Scores from the SAT or ACT should be sent directly to the Messiah College Admissions Office. An interview may be required to complete the application process. See [http://www.messiah.edu/admissions/homeschool\\_students/](http://www.messiah.edu/admissions/homeschool_students/)

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## Dual Enrollment

High school seniors, and occasionally juniors, can apply to earn college credit while still being enrolled in high school. Students must submit an Application for Dual Enrollment Study for part-time non-degree study. Students will need to reapply through the Admissions Office if not continually enrolled semester to semester. An official high school transcript and a letter of recommendation for dual enrollment from the guidance counselor need to be submitted for application file review. Students will be charged \$220 per credit with a maximum of seven credits per semester on campus. Course registration will begin after full-time students have completed the course selection process.

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## Accelerated Students

A number of high schools have accelerated and enriched their programs to the degree that advanced students may be intellectually and emotionally ready for the collegiate experience by the close of their junior year in high school. Messiah College is prepared to admit a limited number of such students annually.

To qualify for accelerated admissions, students must complete a rigorous academic course load to the end of the eleventh grade in an accredited high school. They must rank high on a college entrance test and place in the top 10% of their class in academic achievement. Students must also demonstrate strong personal motivation and maturity. The procedure for accelerated admissions is as follows:

1. The high school administration recommends in writing students for admission on the grounds of social, emotional, and intellectual maturity, as well as on their ability to adjust to the challenge of college-level course work.
2. The applicant's parents must approve in writing the advancement as preferable to the high school senior year program.
3. An interview is required before a decision will be made. Qualified students are admitted as first-year students in full standing. At the completion of the first year, the high school receives a report of the student's college grades.
4. Note: Students cannot qualify for state and federal aid prior to receiving a high school diploma.

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## Transfer Students

Students who have graduated from high school or earned a GED and completed 12 credits or more of college-level course work at another institution of higher education at the time of application are considered transfer students and are welcome to apply for the fall or spring semesters. Along with the application, an official academic transcript from the college(s) attended must be forwarded to the Admissions Office. If a student has completed less than 30 college credits at the time of application, secondary final school transcripts and SAT/ACT results are required. Transfer students seeking admission to Messiah College should have a GPA of at least 2.5. Some programs/majors may require a higher GPA for admission.

An official evaluation of transfer credit will be completed by our Registrar's Office staff following the offer of admission. Messiah College carefully evaluates courses taken at other colleges. Credit is granted only for courses in which a student has received a C (2.0) or above. When possible, credits will be applied first to major courses and General Education requirements and then to elective credits.

In most cases, standard or traditional core courses (such as History of Western Civilization, Public Speaking, etc.) are applied toward Messiah's General Education curriculum. Courses taken at an institution which has not been accredited by a regional accrediting association will be reviewed on a case-by-case basis. Please contact the Registrar's Office with specific questions concerning transfer equivalencies. See [www.messiah.edu/admissions/transfer\\_students/](http://www.messiah.edu/admissions/transfer_students/)

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## International Students

Messiah College welcomes applications from international students (non U.S. citizens), U.S. citizens living abroad, permanent residents and dual U.S. citizens.

Along with the Messiah College application, each student who is a citizen of a country other than the USA is required to submit an International Financial Form to document their financial resources which can be applied toward their educational expenses unless they are eligible for FAFSA. The information provided will also be used to determine scholarships and financial aid awards for the students. Only after the Application and International Financial Forms and supporting documents are completed can Messiah College offer admission to a student. To accept the offer of admission, submit a \$200 preregistration deposit as described in the previous pages.

In order to enter the USA as a non-US citizen, students will need an I-20 form (Certification of Eligibility for Nonimmigrant [F-1] Student Status). Upon acceptance and documentation of financial resources, Messiah College will send the I-20 form to the student. The student will then need to obtain an F-1 student visa from the Embassy of the USA in their respective country.

International students with access to the internet and email are strongly encouraged to use these methods to communicate with the College. The application form and the International Financial Forms are all available at <http://www.messiah.edu/admissions/international>. Printed application forms are also available from the College. Mailing Address: Messiah College  
Office of Undergraduate Admissions  
One College Avenue, Suite 3005  
Mechanicsburg, PA 17055 USA  
Email: [intladmiss@messiah.edu](mailto:intladmiss@messiah.edu)

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## Interviews

Messiah College does not require a personal interview for admission. However, we do strongly recommend an information session if you schedule an individual campus visit. During the information session, we will provide answers to any questions you or your parents may have and present information about the application process. The information session is a good opportunity for us to get to know you and for you to get to know Messiah College better. On occasion, the Admissions Office may require an interview in order to clarify personal or academic issues pertaining to a student's application for admission.

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## Campus Visits

Prospective students are welcome and encouraged to visit the College to experience life on campus via a campus tour, an information session with admissions staff/faculty/administrators or by attending an Open House program. The Admissions Office is open Monday through Friday, 8:00 a.m. to 5:00 p.m. and some selected Saturdays. To schedule your individual visit, please go to [www.messiah.edu](http://www.messiah.edu) and click "Schedule a Visit." (Two weeks' notice suggested.) If you have questions regarding a visit, you may contact the Visit Coordinator at [visitMessiah@messiah.edu](mailto:visitMessiah@messiah.edu) or by calling the Admissions Office at (717) 691-6000 or toll free at 1-800-233-4220.

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### **Advanced Placement Examination**

Students may receive college credit through the Advanced Placement (AP) Examination of the College Entrance Examination Board. College credit is typically granted when an advanced placement exam grade of 3, 4, or 5 is received. Granting such credit may reduce the number of semester hours students need for graduation. Official transcripts of AP test results should be sent to the Messiah College Admissions Office. See [www.messiah.edu/equivalencies](http://www.messiah.edu/equivalencies)

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### **International Baccalaureate**

Messiah College recognizes the International Baccalaureate and accepts scores of 4 or better on Higher-Level examinations and scores of 5 or better for Subsidiary courses as a basis for course credit and advanced placement.

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### **College-Level Examination Program (CLEP)**

Messiah College honors the College-Level Examination Program (CLEP). Credit will be granted for successfully passing courses through examination. Official transcripts of CLEP test results should be sent to the Messiah College Registrar's Office for evaluation. See [www.messiah.edu/equivalencies](http://www.messiah.edu/equivalencies).



# MEETING THE COST

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## Financial Assistance

Students frequently ask, “Can I afford college?” Like any wise investment, an education at a private, Christian college may seem expensive, but it brings definite, lifelong rewards. Because we believe in high-quality Christian education, Messiah College is willing to help deserving students who demonstrate financial need. About nine out of every ten Messiah College students receive some kind of financial aid. The Financial Aid Office is open Monday through Friday, 8:30 a.m. to 4:30 p.m. The office is prepared for consultation with students and their parents planning to finance a college education. Messiah College offers merit-based academic scholarship programs, grants and scholarships based on a combination of merit and need, and tuition discounts. Assistance is also available through federal, state, and private funds administered by the College in the form of grants, loans, and work study.

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## Financial Aid Procedures

### Applying for Financial Aid

If you have questions about financing a college education, you should discuss the availability of state, federal, institutional, and community scholarships, grants, loans, and work-study programs with your high school guidance counselor and/or a representative from the College.

To determine your financial need, complete the Free Application for Federal Student Aid (FAFSA). The FAFSA is a confidential statement of income and assets for both students and parents. The information is analyzed to compare the financial strength of the applicant to that of other students with similar circumstances in terms of income, assets, size of family, number of family members in post-secondary education, age of parents, etc. While the goal of this process is to use a standardized system in order to make the expectations for the family contribution as equitable as possible for each student, applicants should understand that the Expected Family Contribution (EFC) is not a true calculation of the family’s ability to pay the educational expenses. Instead, the EFC is a gauge used to compare and rank each applicant against all others. As such, the EFC, despite its name, should not be considered the exact amount you will be expected to pay. Each applicant may actually pay more or less than their EFC. The following equation is used to determine a student’s financial need:

$$\begin{array}{l} \text{Cost of College Education} \\ - \text{Expected Family Contribution (Determined by FAFSA)} \\ = \text{Financial Need} \end{array}$$

The FAFSA is available to you on the Web at <http://www.fafsa.gov>. A very limited number of paper applications are available at high school guidance offices and at the Messiah College Financial Aid Office. Almost all students complete the FAFSA on the Web. It is used to determine your need for the full range of federal grant, loan, and work study programs, as well as state grants (including Pennsylvania) and Messiah College need-based financial aid.

If you are granted admission to Messiah College and you have unusual circumstances that you would like to discuss, please write, call, or email the Financial Aid Office to explain your circumstances.

Submit your application early. High school seniors should apply for financial aid in January or February of their senior year.

### Financial Aid Package

After your financial need is determined, the College Financial Aid Office can begin to put together a financial aid “package.” Each student’s financial situation is different, so each financial aid package is unique. A financial aid package includes one or more types of financial aid. The most common types of aid include scholarships, grants, tuition discounts, loans, and work-study programs.

Almost all financial aid programs, including those administered by Messiah College, require you to apply each year. Applications for financial aid should be submitted by March 1 preceding the academic year for which you are applying for financial aid. The FAFSA should be mailed, or transmitted if filing on the Web, as soon as possible after January 1 so that it will arrive in our office by April 1. It will take about one month for the FAFSA to be processed and to reach our office. **The FAFSA should be sent no later than March 1 so that the results will get to the federal processor and back to Messiah College by our priority deadline of April 1.**

If you qualify for financial aid from Messiah College, you will be notified by way of a financial aid award letter. This award letter is prepared in the spring prior to the academic year for which you are applying for financial aid. The award letter is presented on line via your MCSquare account.

### Financial Aid Eligibility Guidelines

1. Applications received on or before April 1 are given first consideration. After April 1, applications are processed in chronological order if, and as long as, funds are available.
2. Institutional scholarships and awards are made with the understanding that you will be carrying a full academic load (12 or more credit hours). Several of the government aid programs require you to be enrolled at least half-time (6 or more credit hours).
3. Institutional financial aid programs are available for a maximum of eight semesters and are not available to students who have already received a bachelor’s degree from any institution.
4. Messiah College students will be allowed to take two semesters of institutional aid to approved off-campus programs. (See Off-Campus and Study Abroad Learning Opportunities.)
5. Students who fail to meet the requirements as outlined in the College’s statement of Satisfactory Academic Progress ([http://www.messiah.edu/offices/financial\\_aid/booklet/booklets.html](http://www.messiah.edu/offices/financial_aid/booklet/booklets.html)) will be considered ineligible for financial aid. Some institutional scholarships have additional grade-point-average eligibility requirements.
6. While receiving aid, you are expected to maintain a high standard of citizenship both on the campus and in the community.
7. The Financial Aid Committee reserves the right to revise your award package at any time. Renewal of financial assistance is dependent upon your academic progress and continued evidence of financial need. Your eligibility for need-based institutional aid will be recalculated each year and your award is subject to adjustment each year.

8. Each year, the Financial Aid Office publishes a booklet entitled Financial Aid Information. This booklet contains many more details about financial aid policies and procedures than can be included in this *College Catalog*, and contains updates, which occur between publications of the catalog. The combination of these publications should give each student the opportunity to be well informed about the financial aid policies, which affect them. This booklet is available on the Financial Aid Office webpage at ([http://www.messiah.edu/offices/financial\\_aid/booklet/booklets.html](http://www.messiah.edu/offices/financial_aid/booklet/booklets.html))

### Financial Aid Appeals

Students who fail to achieve satisfactory academic progress and lose eligibility for financial aid may appeal to the Financial Aid Office. The appeal must include an explanation of why minimum academic requirements were not met, why an exception is warranted and a description of what has changed that will allow the student to achieve Satisfactory Academic Progress status. Appeals must be received within three weeks of notification of the award and/or action.

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## Financial Aid Possibilities

Unless otherwise indicated, financial aid applies to the 2013–2014 academic year and is subject to change.

### Federal Grants

- **Federal Pell Grants** range in amount from \$605 to \$5,645 and are awarded to students with an EFC between 0 and 5081 (as of the 2013-2014 academic year).
- **Federal Supplemental Educational Opportunity Grants (SEOG)** are awarded with first priority to students who are also recipients of the Federal Pell Grant. Amounts range from \$100 to \$4,000 per year, although \$1,000 is the most common amount.

**Pennsylvania State Grants** awarded by the Pennsylvania Higher Education Assistance Agency to residents of Pennsylvania. Grants may range from \$500 to \$4,363 per academic year (estimated for 2013-2014 academic year – final State budget not determined as of printing).

**State Grants** from states which allow funds to leave their state, such as Connecticut, Delaware, Massachusetts, Michigan (merit award), Ohio, Rhode Island, Vermont, West Virginia, and the District of Columbia. The amount varies from state to state.

### Scholarships

- **Trustees' Scholarships.** Seven Messiah College full-tuition Trustees' Scholarships are awarded each year to entering freshmen. The amount of the award is frozen at the first-year tuition amount. Trustees' Scholarship candidates are selected by a scholarship committee from the pool of freshmen applicants who have been accepted prior to January 15. Trustees' Scholarship candidates are required to visit campus for an interview with the scholarship committee on selected days during November, January and February. Interview candidates for the Trustees' Scholarships are selected and are notified beginning in the fall. Trustees' candidates should rank in the top 10% of their high school class and achieve a composite SAT score of 1300 or better on math and critical reading OR an ACT composite score of 29 or better. Trustees' Scholarships are available to the student for all four years at

Messiah College, provided the student maintains a 3.3 (B+) cumulative grade point average for the first academic year and a 3.6 (A) cumulative grade point average over two consecutive semesters of each succeeding academic year.

- **President's Scholarships.** About 70 Messiah College President's Scholarships of 60% of first-year tuition are awarded each academic year to entering freshmen. Recipients of President's Scholarships are selected by a scholarship committee from the pool of freshmen who meet the eligibility requirements for the Trustees' Scholarship (with the eligibility requirements listed above). President's Scholarships are available to the student all four years at Messiah College, provided the student maintains a 3.2 (B+) cumulative grade point average for the first academic year and a 3.4 cumulative grade point average for each succeeding academic year. One scholarship is awarded in the name of Marion Barker Burr, one in the name of Henry L. Burr, one each in the names of Alma Keener and Virgie Kraybill, ten in the names of D. S. and Helen E. Poorman, and several in the names of Mary B. and Kenneth Cocklin, and Emily and William Kain. Several President's Scholarships are awarded each year in the names of Harold and Mary Engle, and one each in the names of Ruth Garman and Keith Musser. Typically, named scholarships cannot be directly applied for by a student. Instead, they are awarded by the Financial Aid Office to students who have already been awarded a President's Scholarship and meet the donor's stated qualifications for the named scholarship.
- **Deans' Scholarships for Continuing Students.** Fifteen \$1,500 Deans' Scholarships are awarded each academic year to students who have completed at least 30 credit hours at Messiah College and who have achieved a cumulative grade point average of 2.5 (C+) or better. These scholarships are available to students who have distinguished themselves as outstanding leaders in specific activities while attending Messiah College. Four of these Deans' Scholarships are awarded in the name of Ira B. Graybill and three in the name of Oscar Marshall. Students already receiving a President's or Trustees' scholarship are not eligible for a Deans' Scholarship for Continuing Students. Typically, named scholarships cannot be directly applied for by a student. Instead, they are awarded by the Financial Aid Office to students who have already been awarded a Deans' Scholarship for Continuing Students and meet the donor's stated qualifications for the named scholarship.
- **Provosts' Scholarships.** Messiah College Provosts' Scholarships are awarded to entering freshmen using the academic information available from the student's academic records submitted along with the application for admission.
  - The amounts of these scholarships range from \$9,500 to \$14,500 each year. There is no application form. Provost's Scholarships are renewed each year as long as the student maintains a cumulative grade point average of 2.8 for the first academic year and 3.0 over the two consecutive semesters of each succeeding academic year.
  - Submission of new academic information to increase the amount of a Provost's Scholarship for the upcoming fall semester is permitted up to March 1. Thereafter, the award will remain the same regardless of changes in the student's academic standing.
  - One of these scholarships is awarded in the name of Turkey Hill Dairy, Inc. and one in the name of Full Gospel Businessmen. One is given to a chemistry major in the name

of Mark B. Wolgemuth, one in the name of C. J. Fredricksen, several to business majors in the name of Richard E. Jordan, Sr., one to a music major in the name of Vivian Steele, one to a nursing student in the name of Quentin Berg, and two to junior or senior Brethren in Christ or Mennonite students preparing for full-time Christian service in the name of the Jabbok Bible School Alumni. Several scholarships are also awarded each year in the names of S. Wilson and Grace Pollock, Ronald and Marjorie Katzman, and Ardys Heise. Typically, named scholarships cannot be directly applied for by a student. Instead, they are awarded by the Financial Aid Office to students who have already been awarded a Provost's Scholarship and meet the donor's stated qualifications for the named scholarship.

- **Provosts' Scholarships for Continuing Students.** Twenty \$2,000 Provost's Scholarships for Continuing Students are awarded each year to full-time students who have completed at least 30 credit hours at Messiah College and who have achieved the Deans' List at Messiah College for two consecutive semesters (fall and spring). Several scholarships are awarded each year in the names of Edna J. Hazen, Charles Eshelman, and Alma Cassel. Typically, named scholarships cannot be directly applied for by a student. Instead, they are awarded by the Financial Aid Office to students who have already been awarded a Provost's Scholarship for Continuing Students and meet the donor's stated qualifications for the named scholarship.
- **Messiah College Grants** are awarded to students based on need and/or academic ability. The amounts of these scholarships range between \$100 and \$12,000 each year.
- **The Martin Multicultural Scholarship Program.** Messiah College awards a number of scholarships under the Lloyd and Lois Martin Multicultural Scholarship Program. About four full tuition and several partial tuition Lloyd and Lois Martin Multicultural Scholarships are awarded to entering first-year students and select transfer students who, in addition to achieving excellence in scholarship and service, ministry, or leadership involvement in their school, church, or community, have demonstrated a commitment to promoting racial/ethnic diversity and reconciliation.
  - To be eligible for consideration, an applicant should rank in the top 10% of his or her high school graduating class or have excellent standardized test scores (1200 SAT I, 26 ACT or higher) or have a minimum 3.6 GPA; have shown significant leadership, service, or ministry involvement in his or her high school, church, or local community; and a record of promoting racial/ethnic diversity and reconciliation.
  - Students who would like to be considered for the scholarship must apply and be offered admission to Messiah College as well as submit the official Martin Multicultural Scholarship application before January 15. From this pool, students will be invited to visit campus to be part of an interview process on a day established by Messiah College in February or March.
  - The scholarships are awarded only once each year and begin in the fall semester. Lloyd and Lois Martin Multicultural Scholarships are renewable for each of four years at Messiah College as long as the recipient maintains a cumulative 2.5 grade point average their first year, 3.0 every subsequent year, and a continuing leadership,

service, or ministry role at Messiah College which aids in the promotion of racial diversity.

- Students interviewing for the Lloyd and Lois Martin Multicultural Scholarships are also considered for several partial tuition Amigo Scholarships. Amigo Scholarships are renewable for each of the four years at Messiah College as long as the recipient maintains a cumulative 2.5 grade point average their first year, 3.0 every subsequent year, and participates in the Amigo Mentoring Program.
- More information about the Martin Multicultural Scholarship can be found at [http://www.messiah.edu/offices/financial\\_aid/scholarships/martin\\_multicultural.html](http://www.messiah.edu/offices/financial_aid/scholarships/martin_multicultural.html).
- **National Merit Scholarships** of \$1,000–\$2,000 per academic year (depending on need) are awarded to incoming freshmen who are National Merit Finalists. These awards are automatically renewable each year.
- **Daniel Vollmer Scholarships** in the arts are awarded on the basis of talent in music, art, theatre or dance. The award is 60% of first-year tuition and one half of the award is applied to each semester of an academic year. In the Department of Music, the award is based on the audition for acceptance to the department. For art, the award is based on a portfolio that must be presented to the department. In theatre and dance, the award depends on previous acting or dance experience and a written statement. Please contact these respective departments for information about audition dates, submission dates, and any other requirements for application. The awards are renewable each year provided students exhibit satisfactory academic progress in their area of study and meet any other requirements for the continuation of the award as defined by the respective department. The Vollmer Scholarship may not be combined with any other Messiah College merit scholarship.
- **Deans' Scholarships** in the arts recipients are selected from the same pool of applicants for the Vollmer Scholarships. The Deans' Scholarships range in amount from \$500 to \$3,000 each year and are renewable based on maintaining a 2.8 GPA for two consecutive semesters of an academic year and continuing satisfactory contribution to that area of the arts as determined by the academic department.
- **Music Scholarships** are awarded by the Messiah College Department of Music each year in memory of Earl and Christine Miller and Keith Kuhlman. Others are made possible by Ronald and Beth Sider. Contact the Chair of the Messiah College Department of Music for application forms and more information.
- Several **Summer Service-Learning Grants** are awarded each year to students who successfully complete SERV 231 and SERV 232 Foundations of Service, Missions, and Social Change course. The purpose of these grants is to provide financial reimbursement of lost summer income and direct expenses for students involved in approved summer service-learning and mission activities. More detailed information is available from The Agapé Center for Service and Learning.
- **Guistwite Family Scholarship** for students from the Cumberland Valley Brethren in Christ congregation. Scholarship recipients are determined by the Cumberland Valley Brethren in Christ Church.

- **Niesley Award** for students from the Carlisle Brethren in Christ congregation. These awards are determined by the Carlisle Brethren in Christ Church.
- **Earl and Elsie Sider Scholarship** awarded to a Brethren in Christ student preparing for Christian service.
- **Covenant Scholarships** of \$500 per academic year available for students from churches participating in the Covenant Scholarship program. Travel allowances, ranging in amounts of \$75 to \$300 are available to non-Pennsylvania residents who qualify for these scholarships. The church sponsoring the student's application must be the student's home church, in the area the student lived before coming to Messiah College, not a church the student has only attended while a student at Messiah College. Currently, only Brethren in Christ churches participate.
- **Conestoga Wood Specialties, Inc.**, awards grants to its employees' children who attend Messiah College.
- **Mark S. Hess Scholarships** of up to \$500 are awarded to the high scorer on each of the Bible Quiz Teams participating in the National Brethren in Christ Bible Quiz Championships as well as to members of the winning team.
- **Donald B. and Dorothy Stabler Scholarship/Loan Fund** awards varying amounts to financially needy junior and senior students who have maintained a cumulative grade point average of 3.0 (B) for at least two consecutive semesters. In order to perpetuate the Stabler Scholarships, recipients of this scholarship/loan are required to sign a letter of intent to pledge, after graduation, an amount at least equal to the amount of the scholarship/loan received from the Donald B. and Dorothy Stabler Scholarship/Loan Fund.
- **Janelle Joy Nisly Scholarship** awarded to a nursing or pre-medicine major who has completed at least 30 credits at Messiah College with a minimum cumulative grade point average of 3.3. The recipient shall also be affiliated with a Mennonite or Brethren in Christ church.
- One **Dorothy J. Gish Scholarship** of \$5,000 is awarded each year to a financially needy, native-born, first-year ethnic minority student from the Harrisburg, Carlisle, Lancaster, or York areas of Pennsylvania. The recipient must (1) rank in the top 10% of high school class, (2) have an excellent high school attendance record, (3) demonstrate active church involvement, and (4) have strong family and/or church support.
- Several scholarships are awarded by the **Andrew C. Schaedler Foundation** with preference given to students graduating from a high school located in Adams, Cumberland, Dauphin, Franklin, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Northumberland, Perry, or York counties.
- A scholarship is awarded in the names of **P. B. and Edna Friesen**.
- Several scholarships are made possible by **Martin Limestone, Inc.** with preference given to students from Lancaster County.

**Transfer students** may receive the following awards:

- **Provost's Scholarships** ranging from \$10,000 to \$13,000 are awarded to transfer students with a minimum cumulative college grade point average of 3.0. Students may submit new/updated academic information up to June 15 to be considered for an increase in their award amount.
- **Phi Theta Kappa Scholarships** (\$1,000) are awarded to transfer students who provide proof of membership in Phi Theta Kappa and are in good standing. This scholarship is renewable.

#### **Aid for International Students**

- Grants under the **International Aid** program are awarded to full-time international students who demonstrate financial need as determined by the College. Amounts range from \$500 to \$15,000.
- The **International Daystar Grant** is awarded to visiting students from Daystar University in Nairobi, Kenya. This grant covers full tuition.
- The **International Covenant Grant** is awarded to international students who are members or regular attenders of Brethren in Christ congregations and other denominations or churches that participate in the Covenant Grant Program. This grant can be up to full tuition. The church sponsoring the student's application must be the student's home church, in the area the student lived before coming to Messiah College, not a church the student has only attended while a student at Messiah College.
- The **International Brethren Colleges Abroad Grant** is awarded to international students who are visiting Messiah College under the Brethren Colleges Abroad program. This grant can be up to full tuition and fees.

#### **Student Loans**

- **The Federal Perkins Loan** is interest-free until nine months following termination of studies. Thereafter, 5% per annum.
- **Nursing Student Loan** is interest-free until nine months following termination of studies. Thereafter, 5% per annum.
- **Federal Stafford Loans** is a subsidized version is interest-free until six months following termination of studies. Unsubsidized version requires payment or capitalization of interest while enrolled. Interest is a fixed rate of 3.4% (subsidized) and 6.8% (unsubsidized), expected to go to 6.8% for both as of July 1, 2013. Note: At the time of publication, Congress was working to reduce the subsidized interest rate for the 2013-14 academic year, but no action had yet been taken.
- **The Federal PLUS Loan** the interest is fixed at 7.9%. Repayment begins within 60 days of second disbursement.

**Tuition Discounts.** Each of these requires an application to be filed; some require the application to be filed by a stated deadline.

- **Mature Student Discount** on tuition of 25% for a student 30 years and older.
- **Dual Enrollment Student Discount** on tuition of \$220 per credit, with a maximum of six credits per semester for approved high school seniors (and the occasional junior).

#### **Student Employment**

- **Federal Work-Study Program** (based on need) or **Institutional Work Program**. Part time (an average of 10 hours per week) during the school year and full time (40 hours per week) during summer vacation.
- Other options include employment in the immediate College community (it is the student's responsibility to find this employment) or paid internships and cooperative education (on a very limited basis).

### Other Sources of Aid

- **Veterans Administration Educational Benefits.** Contact your local Veterans Administration Office for more information. Please read our Military Benefits and Institutional Aid Policy at [www.messiah.edu/offices/financial\\_aid/forms/packet/documents/MilitaryBenefitsandInstitutionalAid.pdf](http://www.messiah.edu/offices/financial_aid/forms/packet/documents/MilitaryBenefitsandInstitutionalAid.pdf)
- **Grants and loans from businesses and corporations** to students whose parents they employ. Your parents should contact their Personnel Office for more information.
- **Scholarships and grants awarded by community, civic, and service organizations.** Contact your local high school and specific local service organizations for more information.

Unless otherwise indicated, the above financial aid information applies to the 2013-2014 academic year and is subject to change

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## Schedule of Semester Fees and Refund Policy

### Schedule of Semester Fees (2013 - 2014 academic year)

<b>Tuition</b> (12 to 18 semester hours)	\$14,825
<b>Student Government Association Fee</b>	\$115
<b>Student Service Fee</b>	\$295
<b>Board: Dining Dollars Meal Plan, Grantham Campus</b>	\$2,135

Messiah College offers one meal plan for all students. Students are not required to purchase a set number of meals per week in advance. The meal plan has two components associated with it: the Dining Services Operations Charge and a declining balance Dining Dollars account. The Dining Services Operations Charge covers all operational costs associated with the five dining venues on campus. The funds in the declining balance Dining Dollars account are used to purchase food in each of the dining venues at a 40% discount. The original billing amount is made up of an \$895 Dining Dollar charge and a \$1,240 Dining Services Operations Charge. Additional funds can be added to the Dining Dollars fund without incurring additional Dining Services Operations charges.

Students living in traditional housing (dorm residence) are required to purchase the meal plan. The meal plan may also be purchased by apartment, satellite, off-campus, and commuter students

### Philadelphia Campus Meal Plan

This plan offers a traditional dinner meal option that will be programmed on selected days during the week at the Messiah Campus. This will provide the important community-building component of our urban campus. For other meals during the week and on the weekends students will have a choice of the meal plans available to the Temple students at the agreed upon price with the meal provider Sodexo. These meals are eaten on the Temple campus either in the residential dining facility directly across Broad Street from the Messiah campus or in the retail food facilities throughout the Temple campus. More details will be made available when students get their residential information from the Philadelphia campus.

<b>Super Value-10</b>	10 Meal plan with \$150 Flex Dollars	\$1,680
<b>Super Value-15</b>	15 Meal plan with \$150 Flex Dollars	\$1,875
<b>Super Value-CB</b>	Carte Blanche / No Flex Dollars	\$1,885

### Special Fees (2013-2014 academic year)

Application for Admission (nonrefundable)	\$30
Art Studio Fee (per course)	\$35
Art 110, 211, 224, 234, 355, 356, 483, 493, 150, 209, 210, 304 Course Fee	\$50
Art 151, 334, 312, 420 Course Fee	\$40
Auditing, per semester hour	\$415
BIOL 161, 162 Course Fee (in addition to lab fee)	\$50
COMM 226	\$200
Credit beyond 18 hours, per credit hour	\$565
Credit by Examination, per credit hour (nonrefundable)	\$100
Drop/Add Fee	\$15
Health Insurance (per academic year, nonrefundable)	\$1,400
ID Replacement (nonrefundable)	\$15
IDFY 101 Food and Culture	\$25
Late Payment Fee	\$100
Late Registration Fee, per course, (nonrefundable)	\$40
Lifetime Transcript Fee	\$50
Lost Post Office Box Key (nonrefundable)	\$25
Lost Room Key Fee	\$75
Meal Plan Change Fee	\$50
Miscellaneous Course Fees	\$40-120
Nursing Student Fee (nonrefundable)	\$235
(NURS 210, 211, 310, 311, 312, 313, 410, 411, 412, 413 course-related fees are not refunded except when the major is dropped prior to the first day of class.)	
Parking Fee - Residential (per academic year, nonrefundable)	\$110
Parking Fee - Commuter (per academic year, nonrefundable)	\$50
Parking Permit Replacement Fee (nonrefundable)	\$10
Private Lessons (Applied Music, includes all MUAP courses) All students (14 one-half hour lessons per semester)	\$325
Registration deposit for first-time students (refundable through May 1)	\$200
RELI 329 Christianity in Africa	\$10
Returned Check Fee (nonrefundable)	\$35
Science Lab Fee (per course)	\$50
Skiing Course Fee (PHED 115 and PHED 116)	TBA
Summer On-Line Courses, per credit hour	TBA
Student Teaching (LFS) Fee	\$60
Tuition for fewer than 12 hours, per credit hour	\$1,240
URBS 303 Eco-Urban Footprints	\$35

### Fees

The Student Government Fee covers student admission to athletic events, music activities, and receipt of student publications. Some Student Government Association (SGA) sponsored activities are partially subsidized by the activities fee, providing a reduced admission charge to students. Student Services covers maintenance and special improvements in Information Technology in addition to other services. Some of these areas of maintenance and improvement include (1) speed of internet access, (2) the number of computer ports in several residence halls, and (3) our Information Technology Services in Murray Library and Learning Commons. These fees are not refundable. Textbooks and supplies are on sale at the Campus Store and Textbook Express. The estimated expense of books and materials is approximately \$800-\$1200 per year. A parking permit

is required each year for all students with cars on campus, and a fee is charged. A proportionate fee is charged to part-time students.

### Student Medical Insurance

All full time students are billed an annual premium for medical insurance. The period of coverage begins on August 1 of the current year and is in effect for the 12 months ending July 31 of the subsequent year. The student can have this charge reversed by completing an on-line insurance waiver by the third Friday in September. By completing the waiver, the student certifies that he/she has other medical coverage. The Student Financial Services office does not have the authority to reverse insurance charges after the waiver period has expired.

Students who have not completed the waiver by the second Friday in September will receive an urgent email from the Coordinator of Health Services informing them of the impending waiver deadline.

Students who have insurance charges on their account after the third Friday in September have the right to appeal the charge to the Coordinator of Health Services. The appeal must be made before the first Friday in October for fall charges or the first Friday in February for spring charges. If the late waiver is granted, the student will be charged a \$50 administrative fee.

After the expiration of the appeal period, students who are disputing the insurance charge will have the opportunity to waive the insurance for the spring semester. A student receiving a second-semester refund would continue to receive coverage through December 31.

### Billing Procedures

- Bills will be emailed in the third week of July for the fall semester and the third week of November for the spring semester. These initial bills will be based on pre-registration and financial aid information available at the time. Necessary adjustments will be made and reflected on the September and February statements. Financial aid is not credited until official notification of the award is received from the awarding agency.
- Periodic statements of the activity on accounts will be emailed to the student's Messiah College email address.
- The tuition, SGA and Student Services fees, along with room and board charges for the spring semester include the January Term, Spring Term, and May Term.
- All semester-long programs off campus are considered full-time for billing purposes, regardless of the number of credits the student ultimately earns. Tuition for additional J-Term, May-Term and Cross-Cultural courses will be billed at the "overload" rate.

### E-Billing and E-Payment

Messiah College partners with CASHNet to provide paperless billing and secure online payment options. Students will be contacted via their Messiah College email account to access their tuition bill. Students also have the ability to sign up parents or other authorized parties to view and/or pay their bill, and deposit money into their Falcon Dollars account. Our payment options now include online check, credit card, or traditional mail-in check. Check and cash payments are accepted at the Falcon

Exchange, located on the second floor of the Eisenhower Campus Center.

### Site Access to E-Billing and E-Payment

**Current students** access the site by logging into MCSquare, and opening "Self Service Banner." Under the "Student" tab, choose "Student Accounts." On this screen you will find an option to go to the Messiah/CASHNet e-Bill site. Once in the site a student has the ability to:

- View their Account and make a payment
- View their Recent Payments (made via the site)
- Assign Parent and Other Authorized Users PINs
- View their Bill(s)
- Set up Saved Payment Methods for frequent use.

Students may also access the e-bill site through a quicklink on the "Home" tab of MC-Square.

### Parents or Other Authorized Parties:

Parents and Other Authorized Parties cannot access the site until the student has set them up with a PIN. Once a PIN number has been assigned, the site can be accessed at the following web address:

<https://commerce.cashnet.come/messiahpay>

### Payment Options

**e-Check/ACH:** We recommend the e-Check/ACH method. This method is free and very secure. You will need to enter your bank's routing number, checking/savings account number, and your personal information. Please note that Messiah College will NOT automatically draft money from your account. All transactions must be initiated by you, the account holder. Transactions are normally posted to the users account within 24 business hours. **Note:** We cannot accept credit card cash advance checks, brokerage account checks, or any check marked "Do Not Use for ACH." A \$50.00 fee will be charged for any e-Check/ACH returned for insufficient funds.

**Credit Card:** We accept Visa, MasterCard, American Express, and Discover. Payments by credit card require the user to pay the processing fee of 2.75% made payable to CASHNet.

**Paper Check:** We accept the traditional method of mailing a check or personal payments made at the Falcon Exchange counter on the 2<sup>nd</sup> floor of the Eisenhower Campus Center. All paper checks are required to have the student's ID number in the memo line. Checks should be mailed to: **Messiah College Business Office, One College Avenue, Suite 3011 AR, Mechanicsburg, PA 17055**

### Payment Policies

There are two basic plans for making financial payments to the College for fall and spring semesters: The **Semester Plan** requires payment of the entire balance due for the semester on August 23, 2013, for the fall semester, and December 20, 2013, for the spring semester. The **Monthly Payment Plan** with Tuition Management Systems requires ten equal monthly payments for the estimated annual amount due with payments starting June 20 and ending March 20. In both plans, any **approved but uncredited** financial aid (e.g., student loans, private scholarships, and grants) may be taken into account in computing the payment amount, provided that the relevant information is clearly communicated to the Student Financial Services along with the payment. **Any outstanding balance carried beyond the due date is subject to a late payment charge of \$100 in addition to a finance charge of 1.25% per month.**

Full payment is required prior to the first day of class for summer sessions, independent study courses, and directed study courses.

#### **Tuition and Fee Refund Policy/Return of Title IV Funds**

Refunds for students who withdraw voluntarily or involuntarily are determined according to the following policy:

1. The portion of tuition and residence fees to be refunded to withdrawing students will be as follows:

Week 1	100%
Week 2	75%
Week 3	60%
Week 4	50%
Week 5	25%
2. For refund calculation purposes, spring semester begins the first day of J-Term. Students who withdraw during J-Term are considered part-time students for the purpose of calculating refunds. As such, no J-Term refunds are issued after the second day of J-Term classes.
3. Students who withdraw after the completion of the fifth week of classes will not receive a refund of tuition or residence fees.
4. Student Government, Student Services, Applied Music, Lab, and other course related fees will not be refunded after the first week. Nursing course related fees are not refunded unless the major is dropped prior to the first day of class.
5. Unused Dining Dollars are refunded in full. The Dining Operations Charge is not refundable.
6. Students who withdraw after the J-Term, but before the spring term add date, will be treated as part-time students for refund purposes. As such, no J-Term refunds are issued after the second day of J-Term classes.
7. Refunds and adjusted bills will be emailed to the student's Messiah email account following withdrawal.
8. There are no refunds for incomplete independent study or correspondence courses.
9. There are no refunds for enrolled students vacating a room after the start of the semester.
10. Spring semester room charges will be adjusted only for those students enrolled in Messiah College approved credit-bearing off-campus activities during January or May terms. Adjustments will be uniformly applied to all campus housing charges. Housing charges will be adjusted for students participating in directed and independent studies

only if there is an academic requirement that necessitates living off-campus. Housing charges will not be adjusted for students who attend classes, or who are otherwise on campus during both January and May terms. **The housing discount for Spring 2014 is \$200**

11. In accordance with federal regulations, when federal financial aid refunds are involved, the amounts are allocated in the following order: unsubsidized Federal Direct Loans, subsidized Federal Direct Loans, Federal Perkins Loans, Federal Direct PLUS Loans, Federal Pell Grants, Federal SEOG Grants, other Title IV aid programs.
12. The term "Title IV Funds" refers to the federal financial aid programs authorized under the Higher Education Act of 1965 (as amended) and includes the following programs: unsubsidized Federal Direct Stafford Loans, subsidized Federal Direct Stafford Loans, Federal Perkins Loans, Federal Direct PLUS loans, Federal Pell Grants, Federal SEOG.
13. Institutional and student responsibilities in regard to the return of Title IV funds:
  - **Messiah College's Responsibilities:**
    - Providing each student with the information given in the policy
    - Identifying students who are affected by the policy and completing the Return of Title IV Funds calculation for those students
    - Returning any Title IV funds that are due the Title IV programs
  - **Student's Responsibilities:**
    - Returning to the Title IV programs any funds that were disbursed directly to the student and which the student was determined to be ineligible for via the Return of Title IV Funds calculation
14. Other financial aid will be refunded in proportion to and along the same schedule as tuition.
15. Small student account credit balances of \$1.00 or less, if not specifically requested to be refunded within two weeks after the student leaves Messiah, will automatically be cleared and donated to the general scholarship fund.

**The fees, procedures, and policies listed above supersede those published previously and are subject to change at any time.**

# ACADEMIC DEFINITIONS

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## Academic Sessions

**Semesters.** The Messiah College academic program is based on a two-semester calendar. The fall semester begins in late August or early September and extends through part of December. The spring semester begins with the January Term and extends through early May.

**January Term (J-Term).** An integral part of the second semester, J-Term gives students an opportunity to concentrate on a single course for three weeks. Transcultural travel programs are among the innovative courses offered. Students may also enroll in an approved J-Term at another institution. The academic load for the spring semester is the sum of courses taken during J-Term and Spring Term. Therefore, students normally earn three or four credits in January and 12 or 13 credits during the Spring Term, for a total of 15 to 17 credits in the second semester.

While all students are expected to register for a course during J-Term each year, first year students and sophomores are required to do so. Since J-Term and Spring Term together compose the second semester, all fees are applied accordingly. No discounts for tuition or room and board are given to students who do not enroll for a J-Term course.

**May Term.** May Term is a three-week term immediately following Spring Term and is reserved exclusively for cross-cultural studies courses. Since May Term is considered a part of the Spring Semester, students are charged additional tuition at the overload rate only for each credit above the 18 credits allowed for the second semester. Students interested in courses other than cross-cultural studies should enroll in the Summer Session.

**Summer Session.** Undergraduate online courses, taught by Messiah College faculty with special training in online instruction, cost less than courses taught during the traditional academic year. Course credit from summer online courses applies toward the Messiah College degree for current Messiah College students and may fulfill General Education or major requirements.

In addition to General Education courses, a variety of independent/directed studies are available to Messiah College students during the summer months. Internships offer students an opportunity to combine full-time employment with academic components to receive credit.

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**Bachelor of Arts (B.A.)** Degree conferred for completion of a program with focus on broad and liberal education in the humanities, arts, social sciences, and sciences. Curricula leading to the B.A. emphasize ways of knowing and approaches to understanding consistent with the liberal arts. B.A. requirements typically promote broad preparation within the discipline and among related fields.

**Bachelor of Science (B.S.)** degree conferred for completion of a program with focus on in-depth education in the sciences, social sciences, or professional fields. Curricula leading to the B.S. emphasize ways of knowing and approaches to understanding consistent with the sciences and/or professional or pre-professional preparation. B.S. requirements typically promote depth of preparation within a discipline and/or related disciplines.

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**Concentration.** A prescribed set of courses in a subdiscipline of a major or closely related discipline consisting of a minimum of 12 and a maximum of 36 credits. Students may complete the requirements for more than one concentration. All completed concentrations will be noted in the student's transcript. See department listings for requirements.

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**Course Coding.** The courses listed in the College Catalog are coded as follows:

1. Courses numbered 100 to 299 are rated as lower division courses.
2. Courses numbered 300 to 499 are rated as upper division courses and are generally restricted to juniors and seniors.
3. The credit value of each course appears parenthetically following the course title in the course descriptions. The unit of credit is the semester hour.

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**Credit Hour.** A credit hour is a unit of academic work consisting of 50 minutes of instructional time, or two or three such periods of laboratory work per week, throughout the standard 15-week semester. In addition to the in-class work, the student is expected to spend at least two hours outside of class. For terms other than the standard 15-week semester, an equivalent amount of instructional time is required.

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**Emphasis.** A prescribed set of courses in a subdiscipline of a major or closely related discipline consisting of a minimum of 12 credits of requirements. Emphases will not be noted in the student's record or transcript. See department listings for requirements.

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**Independent Study.** Independent study is available to students who wish to explore a particular area of study outside a classroom setting. Projects must be carefully designed and directed toward a specific goal under the direction of a qualified faculty member who meets regularly with the student during the study.

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**Individualized Major.** The College provides an opportunity for qualified students to pursue an individualized major. A student with earned credits between 30 and 72 and who has a cumulative grade point average of 3.00 or higher, is eligible to apply. The application process requires the student, with the assistance of a primary and secondary academic advisor, to produce a detailed proposal for consideration. Contact the Registrar for additional information.

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**Major.** A prescribed set of courses and other requirements recommended by the department and approved by the Community of Educators as a valid representation of the area of study. Generally these courses focus on a specific academic discipline; however, there are some interdisciplinary majors which include work from two or three disciplines. Satisfactory completion of this prescribed set of courses leads to a degree in that area of study.

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**Minor.** A minor is a prescribed set of courses which focuses on a particular academic discipline or area of study. The goal is to allow the student to develop some depth of understanding in that discipline or area of study. Students are not required to complete a minor. Minors require a minimum of 18 semester hours in a discipline other than that of a student's major. A student may complete more than one minor. To earn a minor, a student must attain a minimum grade point average of 2.0 for the courses listed as meeting requirements for the minor. Only one third of the courses



in a given minor may count toward the requirements of another minor or major. At least one third of the course work must be taken at Messiah. A student has the option of declaring a minor during the third semester of attendance or later. More information and the appropriate forms are available through the Office of the Registrar.

## ACADEMIC POLICIES and PROCEDURES

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### Academic Alert

#### Progress Alert

When a student's progress in a course is at risk (e.g., low test scores; missing assignments; lack of attendance), the faculty member is encouraged to initiate an "Academic Progress Alert." This email communication will be sent to the student and copied to members of the campus community who have a confirmed relationship with the student (e.g., academic advisor, athletic coach, office mentor, residence director, etc.). This alert is intended to motivate a student to seek the appropriate assistance and to notify those members of the campus community who may be in regular contact with the student.

#### Academic Appeals of Suspension

Appeals of academic suspension must be submitted in writing to the Academic Appeals Subcommittee and must include an explanation of why minimum academic requirements were not met and why an exception is warranted. Appeals must be received within the time limit stated in the suspension notification.

#### Academic Probation, Suspension, and Dismissal

Satisfactory academic progress toward a degree as a full-time student is defined as completing 24 or more credits per academic year and maintaining a cumulative grade point average of 1.8 while earning the first 23 credits, 1.9 for 24–56 credits, and 2.0 for 57 credits or more. Any full-time student who fails to maintain this minimum cumulative grade point average will be placed on academic probation. A student on academic probation will be advised to take a maximum of 14 credits per semester while on probation. A student who does not maintain the minimum cumulative grade point average for two consecutive semesters will be placed on academic suspension for two semesters. Any student taking six or more credits in a semester who receives less than a 1.0 (D) semester grade point average will be placed on academic suspension.

After two semesters of suspension, the student may apply for reinstatement by providing evidence of probable success. Upon return, if a student fails to achieve the minimum cumulative grade point average in two semesters, the student will be dismissed from the College. A student who is dismissed for academic reasons may apply for readmission after two years. Such a student must present 24 credits of transferrable work taken after dismissal from Messiah.

#### Academic Warning

When a student's semester grade point average (GPA) is less than a 2.0 regardless of the cumulative GPA, the student will be sent an academic warning. This notice will be copied to the student's academic advisor as well as the parents of the student provided a signed records release is on file. The warning is intended to alert the student so that the appropriate measures necessary for academic success can be taken.

### Cocurricular and Athletic Eligibility

The purpose of placing a student on academic probation is to help the student reorder his/her priorities and time commitments in the direction of greater emphasis on academic studies so that he/she might attain the College's minimum standards for satisfactory academic progress as soon as possible. A student who has been placed on academic probation shall be ineligible for participation in the following cocurricular activities:

- Intercollegiate athletics and club sports
- Theatre productions
- Music ensembles
- SGA officers
- Officers in any SGA-chartered organization, including team managers of Outreach Teams
- Music Ministry Teams
- WVMM radio station staff
- Resident Assistant

The only exceptions will be those cases where such participation earns academic credit in a college course and that course meets a graduation requirement for the student's major.

The Registrar is responsible for notifying students of their being placed on academic probation immediately upon completion of the grading process for the period of study leading to such status.

Students placed on academic probation as a result of fall semester grades shall become ineligible for cocurricular participation on the first class day of J-Term/Spring Semester. Students placed on academic probation as a result of spring semester or summer session grades shall become ineligible for participation on the first class day of the fall semester.

Students who are removed from academic probation as a result of fall, spring semester, or summer grades shall become eligible for cocurricular participation as soon as grades are officially recorded for that period of study.

A student who is placed on academic probation may appeal for an exception to the cocurricular ineligibility clause. The appeal must be sent in writing (email is acceptable) to the Registrar. The deadline for an appeal is no later than the end of the first week of classes of the semester for which the exception is being requested. Appeals should be accompanied by letters of support from the student's academic advisor and the individual responsible for the oversight of the student's participation in the cocurricular activity (e.g., athletic coach, supervising faculty member, etc.). The decision of the Academic Appeals Subcommittee shall be final.

### Academic Dishonesty

Scholastic dishonesty constitutes a serious violation of community standards at Messiah College. Any act which involves misrepresentation of the student's academic work or that abridges the rights of others to fair academic competition is forbidden.

Academic dishonesty includes plagiarism, cheating on assignments or exams, submission of the same (or substantially the same) paper in more than one course without the prior consent of all instructors concerned, depriving others of necessary academic sources, and sabotaging another student's work. The *Student Handbook* includes a description of measures that will be taken in cases of academic dishonesty.

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## Academic Petitions

Students who find it necessary to request an exception to any academic policy should secure and complete an Academic Policy Petition form from the Office of the Registrar. The appeal is then reviewed and acted upon by the Registrar. The decision of the Registrar will be communicated to the student in writing and copies will be distributed to the student's advisor. A copy will also be placed in the student's file in the Registrar's Office.

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## Access to College Records

Messiah College respects student rights guaranteed by law and appropriate to a private, Christian educational setting. Messiah College maintains student records under the guidelines of the Family Rights and Privacy Act of 1974 (FERPA), which gives enrolled students the right to inspect their "education records" and to restrict the release of those records. Education records are defined generally as records, files, documents, and other materials maintained by the College which contain information directly related to the student and from which a student can be individually identified. Examples include academic records, student account records, and many records maintained by Student Affairs. Education records **do not** include personal records of instructors or administrators, medical records, financial records of parents, or Public Safety records created for the purpose of law enforcement.

Education records may be released to parents/guardians **only** with the written consent of the student or upon written evidence that the student has been declared as a dependent on the parent/guardian's most recent income tax return.

FERPA permits the College to release "directory information" without student consent to anyone requesting information. Directory information at Messiah College includes a student's name, home address, campus address, home telephone number, campus telephone number, campus email address, photograph (available only on an internal online student directory and faculty class rosters), dates of attendance, degree for which a student is a candidate, academic major, academic awards or honors, birth date, class year, full-time/part-time status, and weight and height for members of athletic teams. Additionally, the College may provide lists of student names by religious preference (if known) once each year in response to inquiries by local churches. The College does not, however, release directory information to outside organizations for commercial solicitation. Any student may opt for directory privacy by going to the Student Directory Profile (Privacy Settings) found in BANNER self-serve. This option allows students to block any or all of the directory information that appears in the campus wide online directory. Students who opt to block all of their directory information will be excluded from any lists that may be provided to authorized internal and external departments. Thus, information that may otherwise be communicated to a student's parents (campus events, commencement, etc.) will not be. Any student who for legal or other legitimate reasons requires the highest level of records privacy must meet with the Associate Dean of Students and the Registrar to discuss the circumstances involved.

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## Auditing a Course

Students who wish to attend a course but not receive College credit or a grade for their work may audit the course. Students who audit a course must attend classes on a regular basis but are not required to do the course work or take any tests in the course. When the course is completed, the audited course is noted on the student's transcript. An additional tuition charge will be added if a student's registration exceeds 18 credits.

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## Change of Major

After having declared a major, students who wish to register for another course of study must obtain the signature of the Department Chair for the new major. The Department Chair will assign the student to an academic advisor for that major. Changing a major must be done through the Office of the Registrar. A change of major may impact General Education requirements. Students should consult with the new advisor for information.

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## Class Attendance

Punctual and regular attendance at classes is expected except when the student is prevented from doing so by illness, death in the family, or a similar emergency. Each instructor is responsible to establish and implement attendance regulations for his/her own classes. Attendance regulations are conveyed to students at the beginning of the semester and are delineated in the syllabus for each course.

For class absence due to personal illnesses, it is the student's responsibility to notify the instructor. For deaths in the family and similar emergencies, students should notify the Vice Provost/Dean of Student's Office, which will notify the Office of the Registrar, which will notify individual instructors.

Student absences due to participation in intercollegiate athletics or institutionally approved field trips, are verified by the sponsor of the event (e.g. coach or faculty member.) The sponsor will communicate the event using the "Instructor /Academic Notification System," found in BANNER self-serve. The system automatically notifies by email those faculty members whose class convenes during the time of the event.

It is the prerogative of the individual instructor to decide whether students who miss a class examination are granted make-up privileges. Any arrangements are to be made between the student and the instructor.

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## Classification of Students

Students carrying 12 or more semester hours are classified as full-time students. The following guidelines are used to determine class level:

- First Year—satisfaction of entrance requirements;
- Sophomore—24 earned credits completed;
- Junior—57 earned credits completed;
- Senior—87 earned credits completed.

*Full-Time Status.* Students who carry an academic load of 12 or more credit hours are considered full-time students, charged at the full-time student rate, and eligible for financial aid as full-time students.

*Part-Time Status.* Students who carry an academic load of less than 12 credit hours are considered part-time students, charged at the part-time student rate per credit hour, and eligible for any financial aid open to part-time students.

Students admitted for limited or special programs designed to meet their particular needs but not leading to graduation are considered nonmatriculated, unclassified, or visiting students, depending on the nature of their program.

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## College Honors Program

The College Honors Program exemplifies Messiah College's commitment to promoting academic excellence and fostering an intellectually rigorous Christian worldview, with the goal of equipping young men and women for lives of leadership and service.

The College Honors Program is designed for students who demonstrate high scholarly ability early in their academic career. The program curriculum is composed of general education honors courses and a Senior Honors Project. In addition to the credit-bearing curriculum, students meet outside of the classroom in the Honors Congress to discuss timely issues and interact with special campus guests. Throughout the academic year, students also have opportunities to participate in on- and off-campus academic and cultural activities. Upon graduation students receive special recognition at Commencement, on their diploma, and on their College transcript.

Students from all of the College's applied and liberal arts majors are eligible to participate. Moreover, in keeping with the College's commitment to educating the whole person, students in the Honors Program are encouraged to participate in the College's many cocurricular opportunities.

The College Honors Program is open to first-year students. The minimum qualifications include a 1300 SAT score and ranking in the top 10% of the student's high school class. No special application is required. As part of the regular admission process, students who meet the minimum eligibility requirements are evaluated for the program. From the eligible pool of candidates, students are selected for on-campus interviews. After the on-campus interview and evaluation of all other application materials, approximately 100 students are selected to enter the program in the fall. Most students selected for the College Honors Program receive either full or partial tuition scholarships.

See our website: <http://www.messiah.edu/academics/honors> for more information.

### Curricular Requirements

#### For Participants Matriculating before Fall 2011

**Sophomore and Junior Year.** All Messiah students take three interdisciplinary [ID] courses: one course from the Engaging a Pluralistic World category (i.e., Ethics, Pluralism, or World Views); one course from the Non-Western category; and one course from the Science, Technology, and the World category. College Honors Program participants are required to take **HONORS** sections of **two** of three ID course requirements. These two Honors courses must be selected from different ID categories, i.e., Engaging a Pluralistic World (Ethics, World Views or Pluralism); Non-Western; or Science, Technology, and the World.

**Note:** Honors classes taken at Temple University through the College's Philadelphia campus meet College Honors Program ID requirements. Honors ID course credit requirements can only be met in Grantham or the Philadelphia campus.

#### For Participants Matriculating in and after Fall 2011

**Freshman Year.** Fall Semester: *First Year Seminar* (IDFY 102 - HONORS section); and Spring Semester: *Created and Called for Community* (IDCR 151 - HONORS section).

**Sophomore or Junior Year.** All Messiah College students take three ID courses: one course from the Engaging a Pluralistic World category (i.e., Ethics, Pluralism, or World Views); one course from the Non-Western category; and one course from the Science, Technology, and the World category. College Honors Program participants are required to take **only two** ID courses (a reduction of one Messiah ID course requirement). **One** of these two ID courses must be an HONORS section from *any* of the following categories: Engaging a Pluralistic World (Ethics, Pluralism, or World Views); Non-Western; or Science, Technology, and the World.

**Note:** Honors classes taken at Temple University through the College's Philadelphia campus meet the College Honors Program ID requirement. Honors ID course credit requirements can only be met in Grantham or the Philadelphia campus.

#### For All Participants

**Junior or Senior Year:** *Senior Honors Project.* The requirement can be met in one of the following three ways:

- HONR 498, HONR 499: Senior Honors Project. A two-semester project that can take a variety of forms, including an interdisciplinary thesis, creative arts project, or service learning project. All projects must fulfill the parameters for the Senior Honors Project.
- Department Honors or Department Project. The Senior Honors Project may overlap with department honors or a department project, but must meet the parameters for the Senior Honors Project.
- HONR 497: Senior Honors Seminar. An interdisciplinary capstone seminar for students in the College Honors Program. The thematic focus of each seminar will be defined by the professor and will include intensive reading, discussion, and a written research paper.

#### Non-Credit Bearing Requirement

**Honors Congress.** Completion of three semester-long Congresses before graduation. *First year students must complete a Congress semester during fall of their freshman year.* The completion of an Honors Congress requires that a student attend three of the semester's scheduled events.

#### Eligibility Requirements for the College Honors Program

Participation in the College Honors Program requires that all participants meet the grade point average (GPA) requirement for either the Trustees' or President's Scholarship. For President's Scholarship recipients, renewal of these scholarships is contingent on maintaining a 3.2 GPA as a first year student and a 3.4 GPA each subsequent year. For Trustees' Scholarship recipients, renewal is contingent on maintaining a 3.3 GPA as a first year student and a 3.6 GPA each subsequent year. Participation in the College Honors Program is also required for scholarship renewal. College Honors Program participants receiving the Provost Scholarship must meet the GPA requirements for the President's Scholarship to continue in the program. If a student is removed from the College Honors Program, he or she cannot be readmitted. All College Honors Program participants must meet the preceding GPA requirements

upon completion of all course work in order to be certified, at the time of graduation, as a College Honors Program graduate.

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## Degree and Graduation Information

Academic advisors provide counsel to students regarding choice of curriculum and of each semester's program of courses, but responsibility that the required subjects are included at the proper time rests with the student. Final responsibility for the fulfillment of all requirements for graduation also rests with the student, who is expected to seek advice when needed. Any deviations from the published requirements require the approval of the Registrar.

### Application for Degree

Students working toward a degree must file an application for degree with the Registrar's Office at the beginning of their senior year. This presupposes the completion of a minimum of 87 semester hours of credit. Applications require the approval of the Academic Council and the Community of Educators before students are formally admitted to degree candidacy.

### Graduation Attendance

Graduating seniors are expected to participate in the Commencement exercises. Exemption requests should be directed to the Office of the Registrar.

### Requirements for All Degrees

1. 123 hours of credit, except as noted in the requirements for selected majors.
2. A minimum cumulative grade point average of 2.0 (C) for all academic work presented for the degree.
3. A minimum cumulative grade point average of 2.0 (C) for all work listed as specific requirements for the major.
4. The last 30 credits preceding the conferring of the degree earned at Messiah College with a minimum of 12 credits in the major.
5. For transfer students, a minimum cumulative grade point average of 2.0 (C) for hours required at Messiah College for graduation.
6. Completion of a major with requirements as specified by the respective academic department or as offered at the Philadelphia Campus in conjunction with Temple University.
7. Completion of all General Education requirements.

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## Disability Services

Students with disabilities may request needed accommodations through the Office of Disability Services (located in Murray Library 115). Students requesting accommodation should contact the Office of Disability Services as soon as they have been accepted for attendance at Messiah College.

Eligibility is determined by submitting acceptable, current documentation to the Office of Disability Services. Documentation must include 1) verification of a disability ("a substantial impairment in one or more significant life activities," according to the ADA) conducted and signed by a qualified examiner, 2) the specific tests, results, and procedures used in making the determination, and 3) specific statements of need that clearly support and relate to the requested accommodations. Eligibility documentation older than three years may be considered but may not be sufficient for College purposes. Examples of acceptable documentation include in-depth psychological evaluations, medical

reports and letters from physicians, and multi-disciplinary team reports from schools. Copies of Individual Education Plans or Section 504 Accommodation Plans will be considered but alone are not sufficient to determine eligibility. IEPs and 504 Plans do not automatically apply at higher education levels.

**Caution: In compliance with the Americans with Disabilities Act, students must meet essential course and program standards, with or without accommodations.** Essential program and course standards are not waived nor lowered for students who lack skills or the ability to comprehend or perform certain aspects of the program or course of study. **The College is not obligated under the ADA to modify or replace program or course standards with other standards more amenable to a given student when those modifications fundamentally change the nature of the program or course.**

Modification of peripheral elements of a course may be authorized at the instructor's or department's discretion. A reasonable accommodation might be to allow use of a calculator so a student with a disability in mathematics can perform required calculations on tests and exams. Omitting test questions covering essential elements of a course for that student violates the equal access elements of the ADA and Section 504 of the Rehabilitation Act and is not considered a reasonable accommodation.

Other potential areas of difficulty can be activity-intensive courses where attendance and daily, active participation are essential but a chronic health condition leads to frequent or extended periods of absence, and courses with high standards for spelling (for example, elementary education, and medically-related programs of study) for students whose writing or spelling skills do not meet accepted professional standards.

Students are encouraged to discuss any disability-related skill deficits with their advisors and/or Disability Services personnel to determine whether skill limitations can be accommodated in a particular course or major. No student will be excluded from attempting any major or program for which they are otherwise qualified. However, in some cases, the student may be advised to select another major that relies on their strengths rather than weaknesses.

The College is responsible for making reasonable accommodations for those who meet the qualifications under the ADA. In some cases, the accommodations provided may be different but as effective as those specifically requested. In particular, those students coming from public school settings where special education has been provided need to be aware that the emphasis changes under the ADA from "entitlements" (required special education supports) to "accessibility," or accommodations to assure qualified students that they have equal access to the full range of programs and services offered by the College. There are no additional charges for accommodations which may include such things as:

- extended time on tests
- proctored exams in alternate locations
- assistance with getting class notes
- copies of lecture notes
- advocacy/referral services
- coaching
- textbooks in alternate formats (e-text, Braille, etc.)
- special housing arrangements
- priority registration

- assistance with computer hookups or systems
- assistance with using assistive technology
- interpreter/transcription service
- special parking arrangements
- arranging accommodations for international study

Students requesting accommodation should contact the Office of Disability Services as soon as they have been accepted for attendance at Messiah College. An interview is required to determine eligibility and to determine approved accommodations. This also gives the student an opportunity to describe his or her unique circumstances and to problem-solve with Disability Service staff in determining appropriate supports that may be available or need to be developed.

Students with mobility disorders who wish to pursue studies requiring attendance at the Messiah College Philadelphia Campus need to be aware that these facilities are not wheelchair accessible. Affected individuals will need to explore possible accommodations with the Director of Disability Services.

For more information, students are encouraged to peruse the Office of Disability Services website: [www.messiah.edu/offices/disability/](http://www.messiah.edu/offices/disability/)

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## Directed Study

Directed study is available to junior and senior students who need to complete a catalogued course at a time other than when it is offered. Each department has designated which courses may be offered by directed study.

Each study must be done under the supervision of a qualified faculty member who will meet with the student from three to five hours per credit hour of the course.

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## Double Major

Students wishing to complete two majors must designate which is their primary major. That major will be the standard by which general education, other requirements, and the degree are determined. A student completing double majors receives only one diploma and one degree representative of the primary major indicated. If the required work for both majors is completed by graduation or within one calendar year of the graduation ceremony at which the first major was awarded, both majors are noted on the final transcript.

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## Examinations

*Class examinations.* When students miss a pre-announced class examination, the instructor decides whether they will be granted a make-up privilege.

*Final examinations.* The final exam period is an important and integral part of the semester. Faculty members are to use this time as a part of the semester's education and will not schedule events which conflict with the final exam schedule. Students are expected to attend their final exams at the scheduled time.

*Requests for final exam changes.* Any student having more than eight credit hours of final examinations in any one day may request a change in his/her final exam schedule. All requests for change must be submitted to the Office of the Registrar using the Request for Final Examination Change Form at least one week prior to the first day of final exams. Once the Registrar approves the request, exams

will be rescheduled at a time mutually acceptable to both the instructor and the student. It should be noted that travel arrangements are not sufficient reason for exceptions to the exam schedule.

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## Grading System

Letter grades (A, B, C, D, F) carry a quality point value and are used in the computation of semester and cumulative grade point averages. Letter grades and their corresponding quality point values are as follows:

A	= 4.0	B+	= 3.3	C+	= 2.3	D+	= 1.3
A-	= 3.7	B	= 3.0	C	= 2.0	D	= 1.0
		B-	= 2.7	C-	= 1.7	F	= 0.0

## Credits and Quality Points

A student's cumulative grade point average is determined by dividing the number of quality points earned by the number of credit hours attempted in which quality points may be earned (graded total). Credits transferred from other institutions do not carry quality points and are therefore not computed in the grade point average.

## Grade Appeal Procedures

An appeal process for students who wish to dispute the final grade received for a course can be found in the *Student Handbook*.

## Pass/Fail Grades

*P = Pass.* Used only for a passing grade in a Pass/Fail course or when a student selects to register for a course on a Pass/Fail basis. The cutoff for pass is C-. Semester credits in which the student receives a P count toward the total required for graduation, but not toward the grade point average.

*F = Failure.* The grade of F is a failing grade and is included in the computation of both the semester and cumulative GPA. F applies under the following conditions:

- The student has not done passing work for the term;
- The student drops the course in the final third of the term;
- The student does not do passing work (earning a D+ or less) in a course graded on a Pass/Fail basis;
- The student fails to clear an Incomplete within the specified time frame;
- The student unofficially withdraws from a course.

Approved Letter Grade Only Courses. Certain courses are approved to be graded with the letter grade option only. Currently, these are the courses so approved.

- INTE 394 Internship and Monthly Class
- INTE 395 Internship and Weekly Class
- IBI 331, 339, 350, 390
- CIS 190, 283, 411, and 412
- MRKT 357

Approved Pass/Fail Only Courses. Certain courses are approved to be graded on the pass/fail option only. Currently, these are the courses so approved.

- ADED 485 Recreation Internship
- ATED 291 Clinical Experience
- BUSA 102 Opportunities in Business
- BUSA 115 Personal Money Management
- CHRM 099 Opportunities in Christian Ministries
- COMM 107 Introduction to Communication Seminar

- COMM 391 Communication Practicum
- EDUC 393, 465 ENGL 391 English-Journalism Practicum
- ENGL 392 Student Publications Practicum
- ENGR 389 Engineering Practicum
- GEST 101 Career Planning and Decision-Making
- GEST 140 Adaptation to American Education
- GEST 210 Racial Healing
- HDFS 099 Opportunities in Human Development and Family Science
- HPED 433 Student Teaching Seminar
- INTE 391 Internship
- MUEN 111-149 Ensemble Credits
- MUSI 001 Concert Attendance
- Any PHED or ADED 114, 137, 181, 182 General Physical Education Activity Courses
- TEP 210, 310, 311, 312, 313, 314, 393, 410, 411, 412, 413, 420, 431, 432, 433, 434, 435, 437, 438
- SERV 232 Foundations of Service, Mission, and Social Change II

#### Auxiliary Symbols

Auxiliary symbols do not carry a quality point value and are not used in the computation of semester and cumulative grade point averages.

*W = Withdrawal.* During the middle third of the semester, students may withdraw from courses with a grade of W. The grade will be posted on the academic transcript but it will not affect the student's GPA.

*I = Incomplete.* The grade of I is given when, for some major reason such as illness, a student has been unable to complete the prescribed course on schedule. It should be given rarely and never to accommodate the student who through carelessness or poor planning does not complete his/her work on time. For credit, an I must be removed according to the following time schedule; otherwise, an F will be recorded. Fall semester: Before opening of spring term. All other terms: By the end of the fourth week following term.

#### Pass/Fail Option

During a college career, students may take a maximum of four courses on a Pass/Fail (P/F) basis with these conditions:

- The course cannot be used to meet a major, minor, or General Education requirement. It must be a free elective.
- The cutoff for Pass shall be C-.

#### Repeating Courses

A student may repeat any course in which a grade of D+, D, or F was received. With repeated courses, the second grade and credits count in the calculation of the student's cumulative GPA, but the original grade and course will remain on the student's transcript. All repeat courses must be taken at Messiah College, including Temple courses taken through the Philadelphia Campus and any other approved off-campus program, subject to the assessment of course equivalency.

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### Medical Leave

Medical Leave is available for students who, due to documented serious physical or psychological illness, need to leave the College during the semester without completing their course work or to withdraw from the College for no longer than two consecutive

semesters. Students on medical leave are not regarded as having permanently withdrawn from the College and need not apply for re-enrollment. However, students must be approved for fitness to return to campus through the process described in the policy.

A student may request a more limited **medically excused** status if he/she is medically unable to complete the final 40 percent of a semester but intends to return to the College at the beginning of the following semester. A student approved for medically excused status need not request permission to return to the College for the following semester unless conditions for returning had been stipulated by the College at the time of departure. The complete policy and procedure are available in the *Student Handbook*.

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### Minor

A minor is a prescribed set of courses which focuses on a particular academic discipline or area of study. The goal is to allow the student to develop some depth of understanding in that discipline or area of study. Students are not required to complete a minor. Minors require a minimum of 18 semester hours in a discipline other than that of a student's major. A student may complete more than one minor. To earn a minor, a student must attain a minimum grade point average of 2.0 for the courses listed as meeting requirements for the minor. Only one third of the courses in a given minor may count toward the requirements of another minor or major. At least one third of the course work must be taken at Messiah. A student has the option of declaring a minor during the third semester of attendance or later. More information and the appropriate forms are available through the Office of the Registrar.

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### Overload

Any student taking more than 18 credits per semester must first obtain the approval of the student's academic advisor and the Registrar. Moderate requests for overloads are generally granted if the student has a grade point average of 3.0 or better. Additional tuition will be charged by the credit hour at the overload rate for each credit above 18.

Students at Philadelphia do not need permission for their 19<sup>th</sup> credit, nor are they charged additional tuition. Students who exceed 19 credits while attending Temple University through the Messiah College Philadelphia Campus will be charged the overload tuition rate for each credit over 19.

In the spring semester, any student taking more than 4 credits in the J-Term or more than 15 credits in the Spring Term must first obtain the approval of his/her advisor and the Registrar. Additional tuition will be charged by the credit hour at the overload rate for each credit above 18.

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### Registration

During the fall and spring semesters, currently enrolled degree-seeking students may preregister for the following academic semester. Students must consult with their assigned academic advisor and obtain his/her approval before registering for classes. Prior to registering for classes, a student's account must be paid to date and all health records must be complete in the Engle Center.

Following preregistration, all course changes require the approval of the student's academic advisor. Courses may be added during the first two weeks of the fall and spring semester or during the first

three days of classes during J-Term. Courses may be dropped during the first third of the term in which they are offered without appearing on a student's academic transcript. During the middle third of the semester, a grade of W is recorded and appears on the student's transcript. This grade does not affect the student's grade point average. Specific deadline dates for course changes are posted each semester on the Registrar's homepage.

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## Scholar Initiatives and Honors

### Deans' List

Students achieving a semester grade point average of 3.6 or higher for 12 or more graded credits are placed on the Deans' List at the end of each semester.

### Department Honors

To encourage scholarly initiative and in-depth investigation within a limited area of study, Messiah College provides able students with an opportunity to pursue honors courses within their major. Students may qualify for an honors course by (1) earning a GPA of 3.50 for all courses completed at the College to the middle of their junior year and (2) meeting all other requirements as prescribed by the department (e.g. GPA for major courses).

Each department offering an honors course prescribes the nature of the work, the point at which it shall begin, and whether the credit in whole or in part may be counted toward fulfillment of a student's major requirements. The department must also approve a student's work for a given semester before permission can be given to proceed with the next semester's work.

Up to six semester hours of credit in honors courses may be earned at the rate of two or three hours per semester. Only the grades A and B will carry credit. If the honors work is of such high quality as to merit the grade A, the student will graduate with honors in his/her major field, provided he/she has completed six semester hours.

Students participating in the College Honors Program may meet their senior honors project requirement through an approved Department Honors course.

Graduation with honors in a discipline is recognized at Commencement and is noted on the student's diploma. Only senior students may participate in Department Honors courses.

### Graduation Honors

The College awards three levels of honors according to a graduating senior's cumulative grade point average (GPA): summa cum laude (3.90 GPA or above), magna cum laude (3.60–3.89 GPA), cum laude (3.30–3.59 GPA).

The following guidelines are used in determining the eligibility and level of honors granted:

- Only credit for courses taken at Messiah College and approved off-campus study programs are calculated in the grade point average.
- A minimum of 60 graded credit hours must be taken at Messiah College.
- Honors published in the Commencement bulletin will be based on the student's cumulative grade point average at the conclusion of the preceding fall semester.
- Final honors as noted on the student's diploma and transcript will be based on all credits earned at Messiah College.

### Honor Societies

The College is affiliated with several national honor societies in selected academic disciplines. Students who excel in their academic major may be invited to join the respective society. Nominations are made during the junior and senior years.

### Smith Scholar Interns

The Smith Scholar Intern Program allows highly qualified upper-class students to work in apprentice relationships with faculty members and to participate in a significant research project. Additional information is available from the Office of Faculty Development.

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## Second Degree

A student will be awarded a second degree if he/she completes both a minimum of 30 credits and the requirements for a second major subsequent to graduation. In that case a second diploma will be granted.

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## Specialized Degrees

Messiah College may offer specialized degrees such as Bachelor of Science in Nursing (B.S.N.) or Bachelor of Science in Engineering (B.S.E.), etc. Such specialized degrees will be treated as Bachelor of Science degrees.

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## Transcripts

Upon written request from students, the Office of the Registrar issues transcripts of academic records. Contact the Office of the Registrar at [www.messiah.edu/registrar](http://www.messiah.edu/registrar) for transcript fees. Before transcripts can be issued, a student must have a clear account with the Falcon Exchange.

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## Withdrawal from the College

Students who intend to withdraw from the College during a semester or subsequent to the end of a semester must complete the Notification to Withdraw/Transfer form. This online form is available in the Registrar's Channel through MC-Square. The date this form is submitted will be used to determine the percentage of refund eligibility as published by the Business Office. Students will be contacted to arrange an in-person exit interview.

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## ACADEMIC RESOURCES and COLLEGE CENTERS

**Agapé Center for Service and Learning.** The Agapé Center for Service and Learning develops, administers, resources, and coordinates programs of service-learning, community service, and mission contributing to the mission of Messiah College to “educate men and women toward maturity of intellect, character, and Christian faith in preparation for lives of service, leadership, and reconciliation in church and society.” Students, faculty, and staff work with community-based partners in local, national, and international settings to empower communities, provide holistic learning opportunities for students, and to encourage students toward an ethic of discipleship, service and civic engagement.

The Agapé Center is home to the following Executive Student Organizations: Outreach Teams, Service Trips, Human Rights Awareness, and World Christian Fellowship that help educators coordinate a variety of local, national, and international service-learning opportunities. Additionally, the Agape Center coordinates the following Service Plunge Days for the campus community: Into the Streets, Dr. King Community Engagement Day, and Service Day.

**Service-Learning Programs.** Messiah College is committed to providing experiential opportunities for students to learn through service. Courses across the curriculum have been designated with a service-learning attribute to signify that educational and community objectives will be met experientially as students engage in service, content, and reflection Courses with an SERV prefix indicate that the course is delivered out of the Agapé Center and that service-learning is both a strategy and an essential part of the content composing the course.

**The Beatrice Howe Language Center** has approximately 30 computers and is frequently used by language students complete the listening and speaking assignments that correspond to their respective textbooks. Students make oral recordings, which can be used to improve pronunciation, or as evidence of achieving speaking objectives. Some stations are equipped with language learning software such as AUDACITY, EUROTALK, and TELL ME MORE for students desiring additional practice in Chinese, French, German and Spanish.

**The Ernest L. Boyer Center.** Advancing its vision to “nurture the educated imagination,” the Boyer Center advances Ernest L. Boyer’s vision for renewing education and society through programs and scholarship both within and beyond Messiah College. Messiah College is fortunate to serve as the steward of the late Ernest L. Boyer Sr.’s legacy. Ernest L. Boyer, Sr. is a distinguished alumnus of Messiah College, whose notable service included chancellor of the State University of New York, United States Commissioner of Education under President Jimmy Carter, and President of the Carnegie Foundation for the Advancement of Teaching.

Founded in 1997, following the generous donation of Boyer’s extensive collection of original speeches, memorabilia, and photos to the college, the Center has established a distinctive record in fulfilling its mission with the support of individual donors, private foundations, federal grants, and Messiah College. The Boyer Archives are housed in Murray Learning Commons, and many

documents are available online through the Center’s digital collection.

Members of the Messiah College faculty are appointed to serve as Fellows in the Ernest L. Boyer Center. Fellows conduct research in the Boyer Archives in order to engage the campus and external scholarly community in integrating the concepts that have grown out of Dr. Boyer’s original thinking into current scholarship and educational practice. The Center also provides research grants enabling Messiah College students and educators to access the Boyer Archives. The Boyer Center is located in 101 Boyer Hall.

**The Brethren in Christ Historical Library and Archives/Archives of Messiah College** is the official repository for the denomination and the college. The museum displays feature artifacts from church and college life. Other resources include manuscripts, oral history, and an extensive photograph collection. The Archives is open to the public for casual visits and research. Visit our websites at [www.messiah.edu/archives](http://www.messiah.edu/archives) and [www.messiah.edu/siderinstitute/BIC-archives](http://www.messiah.edu/siderinstitute/BIC-archives) for more details.

**The Career Center for Vocation and Development** is committed to serving the career and professional development needs of students from every academic major and class year. Career coaches are available to assist students in the following areas: identifying core strengths and interest areas, exploring majors and career options, developing a plan to test out possibilities and gain practical experience, and providing resources for the transition to employment and graduate school. Through individual career advising appointments, career-related programs and events, and interactive online resources, the Career Center offers services to meet a wide variety of career development needs. Students are encouraged to visit the Career Center as often as necessary, beginning with their first year on campus.

**The Collaboratory for Strategic Partnerships and Applied Research** enables students and educators to apply academic knowledge and live out their Christian faith through imaginative, hands-on problem solving. We partner in our region and around the world with non-profit organizations and the Christian Church to serve disadvantaged people and care for the earth. Current areas of engagement include the sciences, engineering, health, information technology, business, and education. Collaboratory participants develop professional competencies and vocational vision for lifelong servant-leadership in the context of intentional Christian community and discipleship.

The **Engle Center** provides a variety of counseling and health-related services to students. Counseling staff provide individual therapy, nutritional counseling, and premarital counseling. For full-time students, there is no charge for the services available, when needed assistance is provided in finding a counselor off campus.

Health Services has 24-hour nursing coverage when classes are in session. Appointments are available to see the Registered Nurse. Services are available to all full-time and part-time students with a completed health form. These services include first-aid treatment, routine ambulatory care, immunizations, a full travel clinic, and selective prescriptive and over the counter medication for purchase. The College Nurse Practitioner holds clinics daily by appointment only. There is a fee for service to see the provider as well as for certain nursing visits including the administration of allergy



injections, selected lab work or other nursing procedures. Appointments with local physicians or specialists and hospitals can be arranged through the College nurse at the student's expense or insurance plan.

Messiah College requires students to complete a College-provided medical history form (now available on line through MCSquare) and a physical exam done by the student's physician within one year before entering Messiah. The College also requires students to have had (a) two Measles-Mumps-Rubella immunizations after their first birthday, (b) Diphtheria-Tetanus immunizations within recommended guidelines, (c) a Mantoux tuberculosis test within one year of entering the College, and (d) a one-time Meningitis vaccine prior to any student residing in College-owned housing. The College recommends that students consider completing the Hepatitis B series. The Hepatitis B series is available through Health Services.

Messiah College assumes no liability for accidents, but offers an insurance plan covering sickness and accidents. We urge students to remain in their family insurance plan and provide documentation of coverage at the on-line waiver system in place through the Business Office; otherwise, the student will be automatically enrolled in the College-sponsored plan after the waiver deadline.

**The Internship Center** is recognized nationally for its quality, comprehensiveness, and excellent resources. Since 2001, over 450 institutions have requested materials or have sought to model their programs after the Internship Center. A comprehensive website - [www.messiah.edu/internship](http://www.messiah.edu/internship) - makes information available to students and to interested employers.

The student-focused goals of the Internship Center are professional development, self-assessment, self-directed learning, integration of faith with work, and career exploration. Orientation, an integrated class, reflective learning activities, site visits, and employer evaluations are designed to support and promote student development.

Most students participate in internships within the greater Central Pennsylvania region; however, internships may be completed almost anywhere in the United States or world. Students may earn up to 16 semester hours of credit through any combination of internships or practica.

**The Department of Information Technology Services** provides extensive support in a variety of computing facilities. Students have access to over 242 computers located in 6 general-purpose computer labs and 20 department labs. Lab computers run Windows 7 environment, with the exception of two labs, which offer a Macintosh OS X environment. The Macintosh labs are used primarily for graphics and video editing. All labs have a large selection of pre-installed software and are connected to the campus network. Five labs are located in student residence halls for student convenience. In addition, all student rooms and major campus buildings, are set up for wired and wireless access to the campus network. The Student Computing Services team provides support for students, including assistance with connecting personal computers to the network.

**Intercultural Office.** The Intercultural Office at Messiah College gathers International Programs (formerly known as the EpiCenter), International Student Programs, and Multicultural Programs into one office committed to exploring new opportunities and synergies for global engagement while promoting cultural awareness through education and cultural engagement. The programs within the Intercultural Office serve the needs of international students, MK/TCKs (missionary kids and third culture kids), under-represented domestic students, and students who desire to study off-campus during their time at Messiah. While each of the programs within this Office have important distinctives, many areas of overlap exist that represent enhanced global learning opportunities for students.

**The Learning Center** (located in Murray Library) strives to provide students with assistance in achieving and maintaining an elevated level of academic proficiency to be successful within Messiah College's competitive and rigorous intellectual environment. It is beneficial to students at all levels of competence. The Learning Center offers tutoring appointments in a number of subjects, including but not limited to: Biology, Chemistry, Nursing, Spanish, French, and German. Individual and group tutoring is offered to all Messiah students free of charge.

Tutors work closely with students and professors to focus upon meeting the needs of each individual student. Tutors are upper division students who have already taken and successfully completed the courses in which they are providing assistance. Tutors are also trained in various study skills such as time management, test-taking strategies, textbook reading, note-taking and memory skills, in order to provide assistance in these areas.

**Murray Library and Learning Commons.** A key facility in the College's educational program is the Murray Library and Learning Commons. It contains study places for individual and group study; a resource collection of more than 300,000 items, including periodicals and other media; the Writing Center; the Learning Center; Disability Services; Café Diem (a coffee shop); the College and Brethren in Christ Archives; and a computer lab. Resources are available from other libraries through interlibrary loan. The Library homepage serves as a gateway to thousands of digital subscription databases, journals, and other web-based resources.

**The Oakes Museum of Natural History** is an educational outreach program of Messiah College with a core of 12 collections with over 60,000 specimens, plus the use of the beautiful campus itself for many outdoor activities. It features animals from Africa and North America set in dioramas of their natural habitats, bird eggs and nests, geologic specimens, butterflies, and a myriad of other insects. Also, herpetological specimens, pressed plants, fungi and Native American artifacts round out the diversified collections held by the Museum. Families especially enjoy the Sensory Discovery Room where they can handle birds, seashells, rocks, minerals and jars containing frogs, salamanders and more!

Service focuses on customized, educational group tours for public and Christian schools plus college classes from all majors across the campus. A few students each year are able to do internships at the museum as well. Messiah students serve as volunteer docents who deliver tours during our public visitation hours, which are every Saturday (except major holidays or holiday weekends) from 1:00 to

5:00 p.m. Admission is free for college students and their immediate families as well as for alumni and their immediate families. See <http://www.messiah.edu/oakes>.

**Office of Disability Services.** Students with disabilities may request needed accommodations through the Office of Disability Services (located in Murray Library). Students requesting accommodation should contact the Office of Disability Services as soon as they have been accepted for attendance at Messiah College. For details about Disability Services procedures, refer to the Academic Policies section of this Catalog. For more information, students are encouraged to peruse the Office of Disability Services website: <http://www.messiah.edu/offices/disability/>

**The Sider Institute.** Through a variety of educational opportunities and scholarly programs, the E. Morris and Leone Sider Institute for Anabaptist, Pietist and Wesleyan Studies facilitates the exploration, interpretation and application of the three theological traditions which have shaped both the Brethren in Christ Church and Messiah College. The Sider Institute is also the home of the Peace and Conflict Studies major and minor. For more information on the Sider Institute, visit [www.messiah.edu/siderinstitute](http://www.messiah.edu/siderinstitute); for more information on PACS, visit [www.messiah.edu/departments/peace-conflict/index/html](http://www.messiah.edu/departments/peace-conflict/index/html).

**Supplemental Instruction (SI)** is a program that targets “high risk courses” rather than “high risk students.” The College pays trained Supplemental Instruction Leaders to attend selected class lectures, take notes, read course material, then plan and conduct two 1.5 hour review sessions outside of class each week. The SI review sessions are interactive and utilize a variety of collaborative learning techniques as they combine how-to-learn with what-to-learn. Students acquire effective study strategies as they review course material and prepare for tests. The sessions are not remedial, but benefit all who attend. Statistical data suggest that students who attend SI sessions earn one-half to a full letter grade higher than those who choose not to attend.

**Writing Center.** Any student at any stage in the writing process—from understanding an assignment and finding a topic to composing and revising a draft—may find assistance and encouragement at the Writing Center. Trained peer tutors advise and support student clients who visit the Writing Center, helping them become more confident and adept writers. The writing center is located within the Murray Library and Learning Commons.

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## Off-Campus and Study Abroad Learning Opportunities

### Education Abroad and International Programs

The Intercultural Office should be the “first stop” for students seeking information on study opportunities in off-campus locations, study abroad, cross-cultural courses, exchange programs, and discipline-specific programs in the U.S. Catalogs, brochures, applications, course listings, and videos, along with information about deadlines, costs, program advisors, and requirements are available to help students explore options for study in numerous off-campus locations. For additional information, browse the Intercultural home page at <http://www.messiah.edu/intercultural> or call at 717-796-1800, extension 2131.

### Experiential Education

To encourage students to apply classroom theory in practical settings, the College offers a variety of experiential education programs. The Internship Center offers opportunities in Central Pennsylvania, Philadelphia, London and elsewhere. Also available, through the Agapé Center, are service-learning and volunteer placements with service agencies, businesses, and governmental organizations.

### Approved Off-Campus Study Programs

The Intercultural Office provides students with information about off-campus and enrichment study opportunities, such as study abroad, internships, and service programs. This one-stop-shop is open weekdays from 8:00 a.m. to 5:00 p.m., and is located in the Larsen Student Union. Applications, brochures, catalogs, course listings, International Student Identity Cards, passport photos, and videos, along with information about costs, deadlines, requirements, passports, travel, and the names of on-campus program advisors are available in the Intercultural Office.

**American Studies Program (Washington, DC).** Open to juniors and seniors in all majors, the American Studies Program brings together students from various Christian colleges for one semester of study and internship experience in Washington, DC. Students are introduced to a wide range of subjects relating to domestic and international political, economic, and social issues. Drawing upon the vast resources of the nation’s capital, students are encouraged to address the public policy implications of these issues in light of their Christian faith. In addition to the academic modules, students are individually placed in internships suited to their academic and vocational interests.

**AuSable Institute of Environmental Studies (Mancelona, MI).** Messiah College participates in the programs of AuSable Institute of Environmental Studies. The AuSable Institute offers courses and programs during the summer as well as J-Term. Scholarships are available to qualified students involved in summer study at the Institute.

**Australia Studies Centre (Sydney, Australia).** Adventure, academics, and art! The Australia Studies Centre is a semester-long program, sponsored by the Council for Christian Colleges and Universities, with a focus on the arts. The Sydney-based Wesley Institute provides students with opportunities to live in this coastal city, to experience Australian culture, and to study visual, theatrical, and musical arts. During the semester students travel to Blue Mountains and Jenolan Caves and to the capital city of Canberra. Students live with Australian families within 10-15 minutes (walking distance) from the campus.

**China Studies Program (Xiamen, People’s Republic of China).** The China Studies Program seeks to expose students to a country whose people make up a fifth of the world’s population. Students will learn Chinese language, history, and culture through classroom instruction, by traveling around the country to such places as Tiananmen Square, the Forbidden City, and the Great Wall of China, and by being conversation partners with Chinese students.

**Contemporary Music Center (Nashville, TN).** Students interested in contemporary music—as artists or in executive roles—will discover firsthand the inside workings of the music industry. Each semester students create, produce, and market a CD. Nashville provides the

perfect setting for students to explore what it means to be a Christian in today's music industry.

**Creation Care Study Program (Belize or New Zealand).** These semester-long programs—affiliated with Christians for Environmental Stewardship—explore Biblical Stewardship, first hand, in Belize or New Zealand. The programs include opportunities for study, reflection, research, and travel and may meet a number of general education requirements.

**Cross-Cultural Courses.** Students can discover a whole new world when they step out of familiar surroundings by participating in cross-cultural study courses. Whether studying abroad in Costa Rica or spending a few weeks with an Amish family in Lancaster County, PA, students will experience firsthand a way of life that they may have only read about in books. The three-week courses include intensive study of the society through lectures and readings, as well as either an extended home-stay or an ethnographic fieldwork project. Courses and locations vary annually and have included areas such as Germany, Ghana, Italy, and Zambia.

**Dalian University of Foreign Languages (BCA: Dalian, People's Republic of China).** Mandarin Chinese language and Chinese business history, literature, politics, and geography are the focus of study for this semester-long program at the Chinese Studies Institute, a center within Dalian University. In addition to classroom instruction, students participate in several weekend excursions and a study tour to such places as Beijing and Chengdu.

**Gaiety School of Acting (Dublin, Ireland).** This three-week J-Term course, which takes place in Dublin, Ireland, allows students to experience Irish culture through the arts. According to the program syllabus, the course “combines the literary study of plays with work in the craft of acting.” In addition to classroom instruction, students visit various Irish museums and theatres (such as the Book of Kells, The Irish Museum of Modern Art, The National Gallery, The Irish Writers Museum, and The James Joyce Centre), as well as participate in a final performance/reception.

**GoED Africa (Kampala, Uganda and Kigali, Rwanda).** Based in Kampala, Uganda, and Kigali, Rwanda, the Go ED Program in Africa engages students with the reality of global poverty. Students witness growth and struggle within these developing countries. Uganda is repairing its social structure after civil wars in the 1980s, and the new government of Rwanda has been working to build peace and unity since its start in 1994. The program fosters spiritual formation alongside academic courses and cross-cultural experience. In addition to classroom instruction, students participate in local service projects.

**GoEd Mekong (Chiang Mai, Thailand).** The highlands of northern Thailand is home to GoED Mekong, an intensive immersion program that allows students to explore “the root causes of exclusion and exploitation of marginalized people groups” and to gain an “understanding of the relationship between exploitation and its root causes: poverty, discrimination, exclusion and violence.” The program fosters spiritual formation alongside academic courses. In addition to classroom instruction, students participate in service projects with local NGOs.

**Goldsmiths: University of London Program (London, England).** Live and study in Europe's third largest city! Goldsmiths'

environment is energetic— a college that allows self-expression to flourish, yet hones your creative and critical thinking. A distinctive constituent college of the University of London, Goldsmiths' truly local urban setting is not the fashionably-thronged tourist mecca of the more familiar West End. As a result, you will have the chance to see the everyday London not usually visited by out-of-towners, making for a genuinely cross-cultural experience in the UK's most cosmopolitan city.

**Hokusei Gakuen University (BCA: Sapporo, Japan).** Students will experience Japanese language and culture while studying in Sapporo—Japan's third-largest city. Students are placed in language classes, based on their abilities, from beginning through advanced levels and take classes from the BCA director and at the university. To get a broader understanding of Japanese culture, students will visit cities around the country such as Kyoto, Tokyo, and Hiroshima.

**India Studies Program.** Students study at Bishop Appasamy University and are immersed in Indian culture by interacting with local citizens in Coimbatore, by program-sponsored travel throughout India, and by participating in service projects. The program offers special options for social work students who can take a course in their discipline as well as participate in social work internships. Additionally, internships and field experiences are available for students in business, communication, and education.

**International Business Institute (Multiple European Sites, India and China).** The International Business Institute facilitates the integration of academic study with an international field experience, giving students an opportunity to develop a global perspective of business. Thirteen countries (Lithuania, Russia, The European Union, India and China) are the classroom settings for students who participate in the ten-week Institute. Students will experience the history and culture of Europe and Asia, while studying international business, global marketing, and international business strategies.

**Internship Program** (<http://www.messiah.edu/internship>). See Internship Center.

**ISA: Paris (Paris, France).** The City of Light is host to ISA's three study abroad programs in Paris. The internationally known **Sorbonne** is the perfect place for French majors and strong language speakers to enhance their French skills while taking classes with French students. **The Catholic University of Paris** offers French language classes as well as courses in culture, art, theater, literature, communications, and history. Courses are taught in French and English, depending on the specific course. Finally, students can choose to study at the **American Business School Paris** where courses are primarily taught in English. Students live with host families and participate in educational excursions with the program.

**Jerusalem University College (Jerusalem, Israel).** Jerusalem University College exposes students to the geography, history, culture, and languages of Israel/Palestine, preparing them for a lifetime of Biblical study. Students can spend one or two semesters studying in and about this Middle Eastern region of the world when they attend the Jerusalem-based institute. The school offers a number of 300-level courses in archaeology, geography, Hebrew Bible translation, history, and Middle Eastern studies.

**Latin American Studies Program (San Jose, Costa Rica).** Students study Latin American economics, culture, politics, and faith when they travel to Costa Rica for 17 weeks with the Latin American Studies Program. The San Jose-based program includes home stays, Spanish language study, travel to a number of Central American countries, and two-week service projects. Students who prefer a specialized experience can choose either a concentration in International Business and Marketing during the fall semester, in which the service project is replaced by a four- to five-week internship, or Environmental Science study in the spring.

**LCC International University (Klaipeda, Lithuania).** Witness history in the making while studying in Klaipeda, Lithuania. Once part of the former Soviet Union, Klaipeda is home to LCC International University which serves 600 students from a number of Eastern European nations. Students live in dorms and take classes with European students. A week-long trip to Moscow and St. Petersburg, Russia and a weekend trip to Latvia and Estonia round out this adventure. Courses in accounting, business, conflict studies, economics, English, history, literature, marketing, social science, and theology are offered each semester. All courses are taught in English.

**London Internship Program (London, England).** The London Internship Program, sponsored by Arcadia University: Center for Education Abroad, offers internships and academic study for a semester in London, England. Students are placed in field experiences related to their majors and take classes offered by faculty at Arcadia or City University. Internships are offered in a variety of areas, including arts, charitable organizations, media and broadcasting companies, healthcare establishments, government offices, and large corporate enterprises.

**Los Angeles Film Studies Center (Los Angeles, CA).** This program provides an introduction to the work and workings of the mainstream Hollywood film industry. It does not assume that students have had previous experience in film. The LAFSC does not intend to be a substitute for film school, as its curriculum is designed to expose students to the industry, to the many academic disciplines that might be appropriate to it, and to critical thinking and reflection on what it means to be a Christian in this field of endeavor. In addition to regular classes, students gain practical experience by participating in internships which have included placement with Warner Bros. Studios, Bruckheimer Films, Chamian Casting, and the "Touched by An Angel" TV series.

**Middle East Studies Program (Cairo, Egypt).** Students spend one semester in Cairo, Egypt, studying Middle Eastern culture and religion, learning Arabic language, and exploring political conflicts. The 15-week program includes an ongoing field service project, a two-week trip to Israel/Palestine, and a two-week tour of several Middle Eastern countries. This program is designed to give students an increased understanding of Middle Eastern culture, Islam, and the greater Arab world; to broaden their horizons as global citizens; and to provide contact with a civilization that is over 4,000 years old.

**National Outdoor Leadership School (Multiple Sites in the United States).** The wilderness is the classroom for juniors and seniors who participate in this hands-on wilderness education program. NOLS teaches students "outdoor skills, leadership and

environmental ethics" in a variety of locations throughout the U.S., including the Rockies, Teton Valley, Pacific Northwest, and the Southwest; students can also take part in an Outdoor Educator Semester.

**O'Neill National Theater Institute (Waterford, CT).** This intensive theater program offers students a unique opportunity to study acting, directing, playwriting, movement and voice, and design in a conservatory setting. Students are immersed in theater studies; classes take place for 14 weeks, seven days a week! Students typically take two-week educational excursions to train with professional theater companies in New York City, Stratford-upon-Avon, England, or St. Petersburg or Moscow, Russia.

**The Oregon Extension (Ashland, OR).** This fall semester program enables juniors and seniors to pursue intensive interdisciplinary study in the southern Oregon Cascade Mountains. The program provides opportunity for students to deal seriously with ideas, Christian commitment, and life as they examine the nature of contemporary society. Classes, taught in three-week increments, include lectures by faculty members and researched presentations by students. During their stay at the Extension, students live in cabins with three or four other participants and are expected to buy and cook their own food as well as contribute to the operating activities of the community.

**Orvieto Semester (Orvieto, Italy).** Italian language instruction, art history, and hands-on art studio courses in sculpting and painting makes this 16-credit program in Italy an attractive option for art students. In addition to classroom instruction, students visit artistically and culturally relevant locations throughout the country.

**Oxford Study Abroad Programme.** Academically-strong student can spend a semester participating in one-on-one tutorials with Oxford professors at New College, St. Edmunds, St. Annes, Trinity College and (Magdalen-Visiting Students Only) through the Oxford Study Abroad Program. The 12-13 week program offers courses in a wide range of disciplines and includes five educational tours each semester.

**Oxford Summer School (Oxford, England).** Students can experience the traditional Oxford approach to education when they attend the Oxford Summer School. This program provides students with a focused study of the European Renaissance and Reformation, exposes students to another culture and style of education, and allows students to experience the rich history of England.

**Philipps-Universität (BCA: Marburg, Germany).** Messiah students can strengthen their language skills by spending a semester or a year studying at the oldest protestant university in the world. Students live with German families or may be permitted to live in Schloft castle. The program includes orientation/language study, university classes (plus special BCA classes), several weekend excursions, and a study tour to Munich or Berlin.

**Pontifical Catholic University of Valparaíso (Valparaíso, Chile).** Located on the coastline of Chile between the Andes Mountains and the Pacific Ocean, Valparaíso offers hilltop vistas, beaches, and abundant cultural opportunities. At the Pontifical Catholic University of Valparaíso, students study alongside local Chilean students and participate in educational excursions in Chile.

**Scholars' Semester in Oxford (Oxford, England).** The Council for Christian Colleges and Universities presents a slice of British life and Oxford education to students participating in the Scholars' Semester in Oxford. Academically strong students spend a semester participating in one-on-one tutorials with Oxford professors, as well as taking part in small group seminars. The Council director offers a course that allows students to integrate faith and learning. Students participate in field trips to such places as Stratford-upon-Avon, Bath, the Cotswolds, Canterbury, and St. Augustine's Abby that are designed to increase student understanding of British culture and society.

**Spring Semester in Thailand (Chiang Mai, Thailand).** This semester-long program offers students the opportunity to experience Thai life, culture, and society from an indigenous perspective. The program is multidisciplinary and includes the study of history, sociology, anthropology, languages, politics, economics, education, family, and religion. Students participate in internships, live with Thai families, and take a variety of field trips.

**Student Visitor Program.** A student may apply for a semester to study at any one of 12 other members of the Christian College Consortium. This option provides a unique opportunity to benefit from the resources of another Christian college while remaining a Messiah student.

**Temple Rome (Rome, Italy)** Explore the streets of Rome for a semester, amid historic architecture and famous sites dating from classical civilization! The program, run by Temple University, offers courses in Architecture, Liberal Arts/Italian Studies, Visual Arts, and International Business. The program includes valuable excursions and activities that help students experience Italian culture and explore Rome's rich heritage.

**Uganda Studies Program (Kampala, Uganda).** The Uganda Studies Program allows students to explore African culture while studying at a Ugandan Christian University. Students live in dorms with East African students (from locations such as Sudan, Congo, Rwanda, Burundi, Tanzania, and Kenya) and participate in service projects in orphanages and medical clinics. During the semester students will travel to historic sites, parks, and cities within the country.

**Universidad de Barcelona (BCA: Barcelona, Spain).** Living with a host family and studying alongside 80,000 Spanish students allows Messiah students to become immersed in the language and culture of Spain. Students are introduced to the Spanish culture through an initial orientation that includes intensive language instruction and travel to cities throughout the country such as Avila, Cordoba, Cuenca, Granada, Madrid, Segovia, Sevilla, and Toledo.

**University of Gloucestershire (BCA: Cheltenham, England).** Located in southwestern England (near the border of Wales), University of Gloucestershire is home to the BCA program in the UK. Messiah students experience British life in the quaint English town of Cheltenham, where they take classes at the university. Students also travel to historical and cultural locations around the country.

**Washington Journalism Center (Washington, DC)** Students will develop hard-news writing skills, study the history and future of

Washington, and examine the role of Christians in the media at the Washington Journalism Center. Additionally, students participate in a 12-week internship experience, giving them hands-on, practical knowledge, which is crucial in the journalism industry.

## GRADUATE PROGRAMS

The graduate programs at Messiah College are an extension of the College's identity as a Christian college of the liberal and applied arts and sciences with a commitment to an embracing evangelical spirit rooted in the Anabaptist, Pietist and Wesleyan traditions of the Christian Church and a mission to educate men and women toward maturity of intellect, character and Christian faith in preparation for lives of service, leadership and reconciliation in church and society. This is accomplished through a variety of graduate level programs designed to prepare students to enter professions, advance within their profession, or enhance their knowledge or skills.

Messiah College offers the following Graduate Programs in an online, on campus and/or hybrid format. Information related to the graduate programs is available: [www.messiah.edu/gradprograms](http://www.messiah.edu/gradprograms).

### **Master of Arts in Counseling** ([www.messiah.edu/counseling](http://www.messiah.edu/counseling))

Tracks in:

- Clinical Mental Health Counseling
- Marriage, Couple, and Family Counseling
- School Counseling
- Certificate of Advanced Graduate Studies in Counseling

Director: John A. Addleman, Ph.D.

### **Master of Arts in Higher Education** ([www.messiah.edu/highered](http://www.messiah.edu/highered))

Tracks in:

- College Athletics Management
- Student Affairs
- Individualized Concentration

Director: Cynthia A. Wells, Ph.D.

### **Master of Education** ([www.messiah.edu/education](http://www.messiah.edu/education))

Tracks in:

- Teaching English to Speakers of Other Languages (TESOL)\*
- Special Education (N-8)\*
- Curriculum and Instruction

\*with (optional) Pennsylvania Teaching Certification

Non-Degree Options include:

- PA Department of Education Program Specialist Certification in ESL
- Certificate in TESOL
- Certificate in Autism Spectrum Disorder (ASD)

Director: Nancy J. Patrick, Ph.D.

### **Master of Music in Conducting** ([www.messiah.edu/conducting](http://www.messiah.edu/conducting))

Tracks in:

- Choral Conducting
- Orchestral Conducting
- Wind Conducting

Program Coordinator: Bradley J. Genevro, D.M.A.

### **Master of Science in Nursing** ([www.messiah.edu/msn](http://www.messiah.edu/msn))

Tracks in:

- Nurse Education
- RN to MSN Option
- Certificate of Advanced Graduate Studies in Nurse Education

Program Coordinator: Louann B. Zinsmeister, Ph.D.

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# GENERAL EDUCATION

Assistant Dean of General Education and Common Learning:

Robin Lauermann, Ph.D.

Administrative Assistant: Joanna Hadley-Evans

Director of the Core Course: James B. LaGrand

Director of Writing Across the Curriculum: Larry M. Lake

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## Mission

The General Education program at Messiah College encourages the development of knowledge, skills, and attitudes of intellect, character, and faith that Christians use in lives of service, leadership, and reconciliation.

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## Purpose

The General Education program works along with the Schools and Departments to ensure that the Messiah College Mission and College-Wide Educational Objectives are addressed in the curricula of the College. The program is composed of two types of courses. First, students learn foundational knowledge and abilities of the liberal arts disciplines. Second, they grasp key academic skills and synthesize knowledge, applying their insights to contemporary issues in interdisciplinary courses. By raising the right questions, exposing students to multiple perspectives, and encouraging critical thinking, Messiah College seeks to enable its students to respond with maturity to the world's complexities. In addition to nurturing these intellectual skills, the College encourages its students to apply their knowledge to the needs of the world—as servants, as leaders, as agents of reconciliation.

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## Program

### Area One—Abilities of the Liberal Arts

1. First Year Seminar (3)
2. Created and Called for Community (3)
3. Oral Communication (3)
4. Writing Enriched course (3)

Each student is required to complete a writing-enriched course. Approved courses are listed in each semester's course schedule with a "W" attribute. The selected course may, but need not, simultaneously meet the W requirement and another curricular requirement.

### Area Two—Knowledge of the Liberal Arts

1. Mathematical and Natural Sciences (9)
  - Mathematical Sciences (3)
  - Laboratory Science (3)
  - Science, Technology, and the World (3)
2. Social Sciences and History (6) (One course from two of the following categories):
  - Social Science (3)
  - European History (3)
  - United States History (3)
3. Humanities and Arts (9)
  - Arts (3)
  - Literature (3)
  - Three credits of the following (3):*
    - Religion (3)
    - Philosophy (3)
4. Languages and Culture (9) Messiah currently offers the following languages, which may be used to fulfill the General Education Languages and Cultures requirement: French, German, Greek, Hebrew, Latin, Spanish, and Chinese.

One of the following:

Two semesters of the same language (6) AND a cross-cultural studies course (3) OR

Three semesters of the same language (9)

5. Non-Western Studies (2–3 credits)

### Area Three—Christian Faith (6 credits)

1. Knowledge of the Bible (3)
2. Christian Beliefs (3)

### Area Four—Social Responsibility

1. Health and Physical Fitness (3)
2. Engaging the Pluralistic World: Interdisciplinary Perspectives

*Three credits from the following (3):*

Ethics in the Modern World (3)

World Views (3)

Pluralism in Contemporary Society (3)

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## Interdisciplinary Courses

Opportunities for interdisciplinary study are included in various sections of the General Education curriculum. At times this represents a course taught by an individual instructor, while at other times a team-teaching approach is used with two or three faculty members jointly working in the course. Courses beginning with an "ID prefix" are interdisciplinary areas of the General Education curriculum. Lists of specific courses which meet the General Education requirements in these categories are available each semester from the Registrar and are included in course registration materials. Topics in each category vary from semester to semester.

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## Writing Across the Curriculum

The Writing Across the Curriculum Program (WAC) at Messiah College is composed of a College-wide community of teacher-scholars committed to the principle that writing is a fundamental mode of self-discovery, intellectual understanding, and human interaction. Therefore, the program is further committed to the principle that both the teaching of writing and the use of writing to further and disseminate human insight into the world around us is the responsibility of every educator.

The specific objectives of the WAC Program in terms of curriculum are outlined in other documents, but the fundamental mission of the WAC Program includes the following:

- To ensure that all students will graduate with abilities in writing that will enable them to communicate effectively with various audiences and in multiple writing situations.
- To encourage all students to understand and employ writing as a means of learning and self-discovery, and to encourage the use of writing as a means of life-long learning.
- To equip faculty members in their efforts to be more effective teachers of writing, and to promote the use of writing as a fundamental form of pedagogy across all disciplines.
- To nurture a culture of writing on campus that values and celebrates writing and reading in all areas of campus life.

The writing program at Messiah includes five classes: (1) the College Writing Workshop, (2) a First Year Seminar, (3) a writing laboratory, (4) a writing-enriched course marked with a "w" suffix on the course schedule, and (5) a writing-enriched course developed for the major (major-w).

1. **College Writing Workshop.** Although not a course required of the majority of our entering students, basic writing is an important element in any writing-across-the-curriculum

program. It will both help students who have particular needs and limit the number of severe writing problems that teachers in the First Year Seminar program will need to address. Because placement in this course represents an entrance deficiency, the hours it represents fall under the “elective” category in the General Education/Major/Elective scheme. This part of the writing program, for those of whom it is required, may be satisfied by completing IDWR 099 College Writing Workshop during the fall semester of the student's first year.

2. **First Year Seminar.** The seminar is the standard first-year writing experience in our program, and is consequently required of all students. While the content topics of each seminar vary widely, there is a substantially common approach to writing instruction and related assignments among the seminars. The requirement must be satisfied in the student's first year by completing one of the many First Year Seminars which are offered primarily during the fall semester. Students who do not complete First Year Seminar with at least a B- must take a writing assessment. Students who do not pass the writing assessment must take a 1 credit Writing Lab in the Spring semester.
3. The **Writing Laboratory** is designed to help those students who, after completing First Year Seminar, demonstrate the need for further writing instructions. All students who make below a B- in First Year Seminar are required to take a writing assessment in the first weeks of the Spring semester. Students who fail that assessment will be required to take the writing lab.
4. **Writing Enriched Course** [“W” Course]. A student may take any “W” course to satisfy the writing requirement. Approved courses are listed in each semester's course schedule and are identified by a “W” designation (suffix). The selected course may, but need not, simultaneously meet the “W” requirement and another general education, elective, or minor requirement.
5. **Writing Enriched Course in the Major** [Major-W]. The major-w course is taken within the students' chosen disciplines; its primary purpose, in relation to writing, is to allow students to begin to acquire familiarity with the expectations of their own professional discourse communities. There is considerable variation in the kinds of courses into which various majors incorporate the writing emphases; each department is responsible for addressing this requirement as part of the academic major.

# INTERDISCIPLINARY MAJORS and MINORS

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## Biopsychology Major

The B.S. in Biopsychology prepares students who are interested in any of the following fields: medicine, psychiatry, clinical psychology, cognitive neuroscience, psychopharmacology, neuropsychology, behavioral genetics, experimental psychology, evolutionary psychology, or comparative psychology.

Most biopsychologists are trained experimental psychologists who have brought their knowledge of biology to the study of psychological phenomena. These phenomena include behavior and underlying psychological processes, such as learning, memory, perception, attention, motivation, emotion, and cognition.

In addition to the Biopsychology major as described above, Messiah also offers an accelerated 3-2 program in Biopsychology and Occupational Therapy in conjunction with Thomas Jefferson University. Students who meet the requirements **and** are accepted by Thomas Jefferson University either during their senior year of high school or at the end of their first year at Messiah College can complete three years of study at Messiah College and two years at Thomas Jefferson University to earn a B.S. in Biopsychology and a MSOT in Occupational Therapy.

Biopsychology Majors can choose from a variety of minors such as Bible, business, communication, early childhood education, Christian ministries, or community psychology, gerontology, human development and family science, sociology, criminal justice, or anthropology. Students in our majors are encouraged to spend a semester studying abroad and/or participate in a practicum or internship off campus. Opportunities are available for professionally supervised participation in community mental health centers, retirement facilities, hospitals, prisons, crisis intervention centers, drug and alcohol rehabilitation facilities, and other service agencies in the area.

### Biopsychology (B.S.) (60-63 credits)

One of the following series of courses (11-13):

- A\*. BIOL 160 Molecular and Cellular Biology (4)  
BIOL 161 Animal Form and Function (3)  
BIOL 162 Plant Form and Function (3)  
BIOL 260 Genetics and Development (3)
- B. BIOL 185 Human Anatomy and Physiology I (4)  
BIOL 186 Human Anatomy and Physiology II (4)  
BIOL 189 Genetics for Health Professions (3)  
PSYC 099 Writing for Psychology (1)

BIOL 387 Neuroscience (3)

CHEM 105 General Chemistry I (4)

CHEM 106 General Chemistry II (4)

One of the following sets of courses (10-12):

- A. CHEM 204 Introduction to Organic Chemistry (4)  
*Six to eight credits from the following options:*  
BIOL 313 Developmental Biology (3)  
BIOL 348 Animal Behavior (3)  
BIOL 382 Microbiology for Health Professions (4)  
BIOL 385 Physiology (4)  
BIOL 386 Human Anatomy (4)  
BIOL 412 Cell Biology (4)  
BIOL 418 Immunology (4)

- B. CHEM 309 Organic Chemistry I (4)  
CHEM 310 Organic Chemistry II (4)

*Three to four credits from the following options:*

- BIOL 313 Developmental Biology (3)
- BIOL 348 Animal Behavior (3)
- BIOL 382 Microbiology for Health Professions (4)
- BIOL 385 Physiology (4)
- BIOL 386 Human Anatomy (4)
- BIOL 412 Cell Biology (4)
- BIOL 418 Immunology (4)

PSYC 101 Introduction to Psychology (3)

PSYC 209/HDFS 209 Life Span Development (3)

PSYC 272/HDFS 272 Introduction to Social Research (3)

*Three credits from the following (3):*

- PSYC 271 Statistical Methods in Psychology (3)
- STAT 269 Introductory Statistics (3)

PSYC 350 Biological Basis of Behavior (3)

PSYC 351 Sensation and Perception (3)

PSYC 408 Experimental Psychology (3)

*Three credits from the following (3):*

- PSYC 204 Cognition (3)
- PSYC 319 Abnormal Psychology (3)

*Three credits from the following (3):*

- BIOL 495/CHEM 495 Capstone: Natural Sciences (3)
- PSYC 494 Psychology Seminar (3)

\*Encouraged but not required for students selecting option A:  
PSYC 099 Writing for Psychology.

### Biopsychology (B.S./MSOT), Messiah College and MSOT in Occupational Therapy, Thomas Jefferson University (65-66 credits)

BIOL 185 Human Anatomy and Physiology I (4)

BIOL 186 Human Anatomy and Physiology II (4)

BIOL 189 Genetics for Health Professions (3)

BIOL 387 Neuroscience (3)

CHEM 105 General Chemistry I (4)

CHEM 106 General Chemistry II (4)

CHEM 204 Introduction to Organic Chemistry (4)

*Three to four credits from the following courses:*

- BIOL 313 Developmental Biology (3)
- BIOL 348 Animal Behavior (3)
- BIOL 382 Microbiology for Health Professions (4)
- BIOL 385 Physiology (4)
- BIOL 386 Human Anatomy (4)

### Jefferson University Course Requirements (two years)

OC 302 Applied Anatomy and Kinesiology (3)

OC 311 Health and Health Conditions (3)

**Note: Students will take 35-36 credits from the Biology and  
Chemistry component of the major.**

PSYC 101 Introduction to Psychology (3)

STAT 269 Introductory Statistics (3)

PSYC 209/HDFS 209 Life Span Development (3)

PSYC 272/HDFS 272 Introduction to Social Research (3)

PSYC 350 Biological Basis of Behavior (3)

PSYC 351 Sensation and Perception (3)

PSYC 408 Experimental Psychology (3)

PSYC 319 Abnormal Psychology (3)

SOAN 342/HDFS 342/PSYC 342 Women and Men in American  
Society (3)

*Three credits from the following (3):*

- BIOL 495/CHEM 495 Capstone: Natural Sciences (3)
- PSYC 494 Psychology Seminar (3)



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## Digital Media Major

Students completing this program will be able to work effectively in a broad range of fields associated with Digital Media, bringing a Christian perspective to bear on the digital world they will be helping to create. Digital Media is a broadly defined field and the program is designed to familiarize students with that breadth. All students will take a core of courses, which introduce digital art and design, digital video, beginning computer programming, and digital sound design. The concentrations give the program depth in one specific area, and the free electives give students the option of exploring digital media in still greater depth, or combining their studies with another discipline. Each concentration is housed in its own department: Visual Art, Communication, Information and Mathematical Sciences, or Theatre. At the same time, all aspects of the program will focus on interactivity whether in video, animation, gaming, web design or other software applications.

### Digital Media (B.A.) (58 Credits)

#### Core Courses (43 credits)

CIS 180 Introduction to Computer and Information Science (3)  
CIS 181 Computer Programming I (3)  
CIS 191 Web Development I: Client Side (3)  
COMM 225 Digital Editing (3)  
COMM 382 History and Theory of Digital Media (3)

Three credits from the following (3):

ART 171 Foundations of Drawing (3)  
ART 182 Color and Design (3)  
ART 211 Computer Art and Imaging (3)  
ART 251 Photography (3)  
ART 282 Form Space and Media (3)

Three credits from the following (3):

ART 236 Graphic Design and Visual Culture: Seeing, Thinking, Making (3)  
ART 237 Typography and Visual Communication (3)

Three credits from the following (3):

ART 336 Design for New Media (3)  
ART 338 Digital Illustration: Editorial and Narrative (3)  
ART 431 Motion Design: Video, Animation, Comm (3)

Three credits from the following (3):

ARTH 210 Topics in Non-Western Art (3)  
COMM 321/IDNW 200 Global Indigenous Media (3)  
COMM 327/IDNW 200 Latin American Cinema (3)

DIGM 490 Senior Seminar and Project (4)

MUCM 353 Sound Design (3)

Digital Media Electives (6)

In addition to other digital media electives listed below, students in the church media concentration are encouraged to take consider taking addition courses in Christian Ministries from the menu below:

CHRM 242 Christian Spirituality  
CHRM 323 Worship  
RELI 344 History of Christianity  
THEO 239 Christian Theology II: The Nature and Mission of the Church.

### Art and Design Concentration (15 credits)

Three credits from the following (3):

ART 211 Computer Art and Imaging (3)  
ART 312 Digital Prints: Concepts and Structures (3)

Three credits from the following (3):

ART 347 Publication Portfolio: Design as Service (3)  
ART 420 Designer as Author: Book Design, Zines (3)  
ART 337 Graphic Design and Professional Practice (3)

Six credits from the following (6):

ART 336 Design for New Media (3)  
ART 338 Digital Illustration: Editorial and Narrative (3)  
ART 352 Digital Photography (3)  
ART 431 Motion Design: Video, Animation, Comm (3)

### Church Media (15 Credits)

THEA 150 Intro to Technical Theatre and Design (3)  
THEA 250 Stage Management (3)  
THEA 350 Scenographic Techniques (3)

Three semesters of THEA 115 Production Practicum (1)

Three credits from the following (3):

CHRM 210 Theology of Ministry (3)  
CHRM 242 Christian Spirituality (consent of instructor) (3)

### Digital Video and Story (15 credits)

COMM 217 Introduction to Film (3)

Three credits from the following:

COMM 226 16 mm Filmmaking (3)  
COMM 227 Persuasive Film Production (3)  
COMM 328 Methods and Issues in Film Studies (3)  
COMM 326 Digital Production (3)  
COMM 341 Communication Theory (3)

### Mobile Applications and Game Design (15 credits)

CIS 284 Computer Programming II (3)  
CIS 287 Introduction to Game Design (3)  
CIS 291 Web Development II: Server Side (3)  
CIS 315 Introduction to Mobile Application Design (3)  
CIS 381 Information Systems and Managers (3)

### Digital Media Electives:

ART 171 Foundations of Drawing (3)  
ART 182 Color and Design (3)  
ART 211 Computer Art and Imaging (3)  
ART 236 Graphic Design and Visual Culture: Seeing, Thinking, Making (3)  
ART 237 Typography and Visual Communication (3)  
ART 251 Photography (3)  
ART 312 Digital Prints: Concepts and Structures (3)  
ART 336 Design for New Media (3)  
ART 337 Graphic Design and Professional Practice (3)  
ART 338 Digital Illustration: Editorial and Narrative (3)  
ART 347 Publication Portfolio: Design as Service (3)  
ART 352 Digital Photography (3)  
ART 420 Designer as Author: Books, Zines (3)  
ART 431 Motion Design: Video, Animation, Communication (3)  
ARTH 150 Art History I (3)  
ARTH 151 Art History II (3)  
ARTH 209 History of Modern Art (3)  
CIS 284 Programming II (3)  
CIS 287 Introduction to Game Design (3)  
CIS 291 Web Development II: Server Side (3)  
CIS 315 Introduction to Mobile Application Design (3)  
CIS 332 Database Concepts (3)  
CIS 381 Information Systems/Managers (3)  
CIS 385 Data Structures and Algorithms (3)  
CIS 432 Database Applications (3)  
COMM 218 Mass Media and Society (3)  
COMM 226 16 mm Filmmaking (3)  
COMM 227 Persuasive Film Production (3)  
COMM 254 Screenwriting I (3)

COMM 326 Digital Production (3)  
 COMM 328 Methods and Issues in Film Studies (3)  
 COMM 341 Communication Theory (3)  
 COMM 342 Intercultural Communication (3)  
 COMM 353 Media Relations/Crisis Communications (3)  
 INTE 394 Internship and Monthly Seminar (4-10)  
 THEA 115 Production Practicum (1)  
 THEA 150 Intro to Technical Theatre and Design (3)  
 THEA 250 Stage Management (3)  
 THEA 350 Scenographic Techniques (3)

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## Ethnic and Area Studies Major

The mission of the Ethnic and Area Studies Major is develop a multidisciplinary understanding of culture and in-depth knowledge of at least one culture or a cultural/racial/ethnic tradition so that students can apply this knowledge in church and society to become effective agents of social justice and reconciliation. Students take a shared set of courses from multiple disciplines to develop a broad understanding of culture and also choose a concentration in a particular ethnic/geographic area to complete a total of 36 credits. Students are strongly encourage to seek out appropriate cross-cultural/study abroad experiences in their particular area of study.

### Ethnic and Area Studies (B.A.) (36 credits)

#### Core Required Courses (21 credits)

COMM 342 Intercultural Communication (3)

*Three credits from the following (3):*

HIST 324 European Imperialism and Its Legacies: 1550 to the Present (3)

POLI 320 Ethnic and Racial Politics in America (3)

SOAN 212 Cultural Anthropology (3)

SOAN 335 Social Conflict, Justice and Peacemaking (3)

SOAN 356 Social Inequality (3)

SOAN 442 Senior Thesis (one semester thesis-driven capstone) (3)

THEO 223 Global Christian Theology (3)

**\*Note:** Students are encouraged to seek out appropriate cross-cultural/study abroad experiences in their area of study.

### African American Studies concentration (15 credits from:)

HIST 352 African-American History Since 1865 (3)

HIST 381 History of Africa (3)

HIST 383 South Africa (3)

ENGL 330 American Literature Before 1900 (3),

ENGL 340 American Literature After 1900 (3) **or**

ENGL 154 Introduction to Ethnic Literature of the United States (3) (Requires certification from the instructor that the course will focus significantly on African American Literature)

ENGL 160 Introduction to World Literature (3) **or**

ENGL 350 Postcolonial Literature (3) (Requires certification from the instructor that the course will focus significantly on African literature)

RELI 329 Christianity in Africa (3)

THEO 207 African-American Theology (3)

### Asian Studies concentration (15 credits from the following:)

HIST 371 Premodern Civilizations of Asia (3)

HIST 372 Modern Civilizations of Asia (3)

HIST 373 History of India before 1500 (3)

HIST 374 History of Modern India and Pakistan (3)

HIST 375 Gandhi's India (3)

PHIL 318 Asian Philosophy (3)

RELI 332 Christianity in Asia (3)

RELI 333 Religions of India (3)

RELI 334 Religions of China and Japan (3)

**Note:** Students may take topics courses in COMM, ENGL, or IDNW that instructors certify will have a significant component of Asian Studies emphasis. We currently are offering courses that include such emphases in both COMM and IDNW. As offerings in Mandarin are developed, students may apply upper level language courses to this concentration.

### U.S. Ethnic Studies concentration (15 credits from the following:)

EDUC 346 Socio-Cultural Perspectives on Education (3)

ENGL 154 Introduction to Ethnic Literatures of the United States (3)

ENGL 330 American Literature Before 1900 (3)

ENGL 340 American Literature After 1900 (3)

HDFS 386 Family Ethnicity and Human Services (3)

HIST 351 Native American History (3)

HIST 352 African-American History Since 1865 (3)

HIST 353 Immigrant America (3)

HIST 355 U.S. Urban History (3)

MUMH 338 Studies in Ethnic Music (3)

SOAN 221 Native American Cultures (3)

THEO 207 African-American Theology (3)

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## Peace and Conflict Studies

**Mission.** This is an interdisciplinary major based on three core disciplines of Biblical and Religious Studies; History; and Sociology. The primary focus of this major is to help students understand and appreciate the Christian foundations for peacemaking/reconciliation; to understand the nature of conflict and approaches to resolving conflict; to understand the relationship of justice to peacemaking, and to become actively involved in peacemaking, conflict resolution, and reconciliation. This major enables students to pursue careers and graduate study in peace and conflict studies.

**Curriculum.** The three core disciplines of the major – Biblical and Religious Studies, History, and Sociology – are essential to understanding and resolving conflict, since in order to achieve reconciliation it is crucial to understand conflict biblically and theologically, historically, and sociologically. To this end, in the PACS core there are courses directly related to peace and conflict studies in each of these three disciplines, and then to further develop students' disciplinary perspectives and methods, an additional relevant course is required from each of the disciplines. Finally, each student is required to take six credits in PACS general electives in relevant courses from other disciplines which are commonly drawn upon in PACS programs; these include Communication, Politics, and Economics.

To further develop students' skills, perspectives, and experience, each PACS major is required to take Basic Conflict Mediation and an internship or practicum that will enable them to practice their skills in a specific arena. Students are also strongly encouraged to study off-campus for a semester in order to build their skills and experience a culture different from their own. The Senior Seminar, which is the capstone course, enables students to bring together all the disciplinary and experiential work that they have done and integrate it into a whole that will enable them to successfully pursue peace and conflict studies as a vocation.

**Peace and Conflict Studies (B.A.) (36 credits)**

BIBL 291 Issues of War, Peace, & Social Justice in Biblical Texts (3)  
 HIST 391 Historical Study of Peace (3)  
 PACS 201 Basic Conflict Mediation (3)  
 PACS 495 Senior Seminar in Peace and Conflict Studies (3)  
 SOAN 335 Social Conflict, Justice, and Peacemaking (3)  
 THEO 227 Theology, Violence and Non-Violence (3)

*Experiential Learning: 3 credits from the following:*

INTE 391 Internship (in area relevant to the major) (3)  
 PACS 391 Practicum in Peace and Conflict Studies (3)

*Three credits from the following Biblical and Religious Studies courses (3):*

RELI 205 or RELI 206 Religions of the World (3)  
 RELI 229 Islam (3)  
 RELI 321 Christianity in Latin America (3)  
 RELI 329 Christianity in Africa (3)  
 RELI 332 Christianity in Asia (3)  
 THEO 207 African-American Theology (3)  
 THEO 223 Global Christian Theology (3)  
 THEO 305 Christian Theology of Religious Pluralism\* (3)  
 URBS 319/THEO 225 Practical Theology and the Urban Church (3)

*Three credits from the following History courses (3):*

HIST 324 European Imperialism (3)  
 HIST 352 African-American History Since 1865 (3)  
 HIST 374 History of Modern India and Pakistan (3)  
 HIST 379 History of the Middle East (3)  
 HIST 381 History of Africa (3)  
 HIST 383 South Africa: Struggle for Freedom (3)  
 HIST 392 Women and Gender in History (3)

*Three credits from the following Sociology and Anthropology courses (3):*

CRIJ 389 World Justice Systems (3)  
 HDFS/PSYC/SOAN 342 Women and Men in American Society (3)  
 SOAN 305 Harrisburg Neighborhoods (3)  
 SOAN 356 Social Inequality (3)  
 SOAN 420 Social Welfare Policy and Social Change (3)  
 URBS 303 Eco-Urban Footprints (3)

*Six credits from the following general electives (at least one must be 300-level) (6):*

COMM 301 Persuasion: Theory and Practice (3)  
 COMM 342 Intercultural Communication (3)  
 COMM 354 Interpersonal Conflict (3)  
 ECON 117 Issues in Environmental Economics (3)  
 ECON 312 Economic Development\* (3)  
 PHIL 325 Moral Problems (3)  
 POLI 212 International Politics (3)  
 POLI 222 Politics in Latin America (3)  
 POLI 315 United States Foreign Policy (3)  
 POLI 320 Ethnic and Racial Politics in America (3)  
 POLI 330 Terrorism (3)  
 POLI 362 Theories of International Relations (3)  
 PSYC 242 Community Psychology (PSYC 101 or SOAN 101 prerequisite) (3)  
 THEA 363 Theatre for Social Change (3)

**Note:** In addition to drawing upon relevant courses in Communication, Politics and Economics, majors may also choose PSYC 242, PHIL 325, or THEA 363 because of their specific relevance to PACS majors.

\*This course requires additional prerequisites, increasing the major credit total.

**Peace and Conflict Studies minor (18 credits)**

BIBL 291 Issues of War, Peace, & Social Justice in Biblical Texts (3)  
 HIST 391 Historical Study of Peace (3)  
 SOAN 335 Social Conflict, Justice, and Peacemaking (3)  
 THEO 227 Theology, Violence and Nonviolence (3)

*Three credits from the following:*

COMM 342 Intercultural Communication (3)  
 COMM 354 Interpersonal Conflict (3)  
 ECON 312 Economic Development\* (3)  
 PACS 201 Basic Conflict Mediation (3)  
 PHIL 325 Moral Problems (3)  
 POLI 212 International Politics (3)  
 POLI 315 United States Foreign Policy (3)  
 POLI 320 Ethnic and Racial Politics in America (3)  
 PSYC 242 Community Psychology (3)  
 SOAN 356 Social Inequality (3)  
 THEA 363 Theatre for Social Change (3)  
 An appropriate discipline-based "Topics" course (with approval of Peace and Conflict Studies Committee)

*Three credits from the following:*

INTE 391 Internship (in peace and conflict studies) (3)  
 PACS 391 Practicum in Peace and Conflict Studies (3)  
 PACS 491 Independent Research in Peace and Conflict Studies (3)

\*This course requires additional prerequisites, increasing the major credit total.

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**Sustainability Studies Major**

Sustainability Studies is an interdisciplinary major in an emerging field for those determined to make a practical difference in the world as students and beyond. It combines elements of the social sciences, politics, environmental sciences and community development in both urban and rural settings. The major requires a core curriculum; a chosen concentration in Sustainable Public Policy, Community and Urban Development, or Sustainable Agriculture; and a practicum experience employing the skill learned in the curriculum. Students completing this major will have the theoretical basis, skills, and experience needed to enhance the environmental, economic and social sustainability of human populations as part of God's Creation.

**Sustainability Studies (B.A.) (51-52 credits)****Core Courses (27 credits)**

BIOL 140/SUST 140 Ecology and Sustainability (3)  
 BIOL 216 Environmental Issues and Sustainable Solutions (3)  
 BIOL 315 Environmental Ethics (3)  
 ECON 117 Issues in Environmental Economics (3)  
 GIS 245 Introduction to Geographic Information Systems (3)  
 POLI 113 American Government (3)  
 SOAN 315 Urban Sociology (3)  
 STAT 269 Introduction to Statistics (3)  
 SUST 495 Sustainability Seminar (capstone) (3)

*One of the following concentrations:*

**Community and Urban Development (24-25 credits) Department of Sociology, Anthropology and Criminal Justice**

ECON 120 Introduction to Economics - Macro Economics (3)  
 HIST 355 U.S. Urban History (3)  
 POLI 323 Public Policy (3)  
 PSYC 242 Community Psychology (3)\*

*Three credits from the following (3):*

POLI 320 Ethnic and Racial Politics in America (3)  
 SOAN 356 Social Inequality (3)

Three credits from the following (3):

- SOAN 101 Introduction to Sociology (3)\*
- SOAN 212 Cultural Anthropology (3)

Three credits from the following (3):

- SOAN 305 Harrisburg Neighborhoods (3)
- URBS 303 Eco-Urban Footprints (3)

Internship experience (3-4 credits):

- INTE 394 Internship and Monthly Class (4)
- SOAN 391 Practicum (3)

\*SOAN 101 is the prerequisite for PSYC 242.

#### **Sustainable Agriculture (24-25 credits) – Department of Biological Sciences**

BIOL 162 Plant Form and Function (3)

BIOL 334 Plant Ecology (4)

BIOL 335 Plant Propagation (3)

CHEM 103 Chemical Science (3)

Four credits from the following (4):

- Biol/Agric/Geog 303 Ecological Agriculture (ASI) (4)
- Biol/Agric/Geog 343 Tropical Agriculture and Missions (ASI)

Three credits from the following (3):

- IDST 300 Urban Eco-Footprints (3)
- SOAN 305 Harrisburg Neighborhoods (3)

Internship experience:

- BIOL 391 Practicum (3)
- INTE 394 Internship and Monthly Class (4)

#### **Sustainability Public Policy (24-25 credits) – Department of Politics and International Relations**

ECON 120 Introduction to Economics – Macro Economics (3)

POLI 212 International Politics (3)

Three credits from the following (3):

- ECON 312 Economic Development\* (3)
- POLI 213 Comparative Politics (3)

POLI 243 Political Research Methods (3)

POLI 323 Public Policy (3)

Three credits from the following (3):

- HIST 355 U.S. Urban History (3)
- SOAN 212 Cultural Anthropology (3)

Three credits from the following (3):

- SOAN 305 Harrisburg Neighborhoods (3)
- URBS 303 Eco-Urban Footprints (3)

Internship experience:

- INTE 394 Internship and Monthly Class (4)
- POLI 391 Practicum (3)

\*ECON 312 requires the prerequisite ECON 220, increasing the major size by 3 credits.

#### **Sustainability Studies Minor (21 credits) – Department of Biological Sciences**

BIOL 140/SUST 140 Ecology and Sustainability (3)

BIOL 216 Environmental Issues and Sustainable Solutions (3)

BIOL 315 Environmental Ethics (3)

ECON 117 Issues in Environmental Economics (3)

POLI 113 American Government (3)

Three credits from the following (3):

- GIS 245 Introduction Geographic Information Systems (3)
- POLI 323 Public Policy (3)

Three credits from the following (3):

- SOAN 305 Harrisburg Neighborhoods (3)
- URBS 303 Eco-Urban Footprints (3)

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#### **Gender Studies Minor (18-21 credits)**

HDFS 244 Human Sexuality (3)

HDFS 342/PSYC 342/SOAN 342 Women and Men in American Society (3)

SOAN 356 Social Inequality (3)

Minimum of three courses and 9 credits taken from the following:

ENGL 144 Nineteenth-Century British Women Writers (3)

HDFS 101 Foundations of Marriage and Family (3)

HDFS 340 Ethics and Families (3)

HIST 392 Women and Gender in History (3)

INTE 394 Internship and Monthly Class (4-6) or INTE 391 Internship (1-3) (Must be approved by Minor Advisor)

POLI 360\* Special Topics in Politics: Women, Family and Politics (3)

SOAN 384/HDFS 384 Families in America (3)

THEO 354 Theology and Gender (3)

\*This Topics course has a prerequisite of IDCR 151 and meets General Education Pluralism in Contemporary Society requirement.)

**Note:** Appropriate course substitutions may be made upon the approval of the Gender Studies Minor advisor.

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#### **Leadership Minor (21 credits)**

Provides a curricular component in the effort to prepare students for leadership roles in church and society. All students are encouraged to consider taking courses in the area of leadership.

BUSA 120 Principles of Management (3)

Three credits from the following (3):

COMM 301 Persuasion: Theory and Practice (3)

COMM 333 Business and Organizational Communication (3)

COMM 353 Crisis Communication and Media Relations (3)

HRM 311 Organizational Behavior (3)

HRM 312/LEAD 312 Leading Organizational Change (3)

LEAD 310 Leadership Theory and Development (3)

LEAD 320 Issues and Challenges in Leadership (3)

LEAD 391 Leadership Practicum (3)

**Note:** Appropriate course substitutions may be made with the approval of the Department of Management and Business.

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#### **Pre-Counseling and Therapy Minor (21 credits)**

Three credits from the following (3):

HDFS 101 Foundations of Marriage and Family (3)

PSYC 101 Introduction to Psychology (3)

HDFS 339 Dynamics of Family Interaction (3)

PSYC 319 Abnormal Psychology (3)\*

PSYC 323 Counseling Theories (3)

PSYC 423 Counseling Techniques (3)

Two of the following (6):

GERO 218/HDFS 218 Death, Grief and Caring (3)

HDFS 242 Parenting (3)

HDFS 244 Human Sexuality (3)

HDFS 355 Marital Relationships (3)

HDFS 411 Marriage and Family Therapy (3)

HDFS 391 Family Service Practicum (3)

PSYC 209/HDFS 209 Lifespan Development (3)

PSYC 241 Group Dynamics (3)

PSYC 324 Personality (3)

PSYC 365 Drug and Alcohol Addiction (3)

PSYC 391 Psychology Practicum (1-3)

\*This course requires prerequisite(s), which may increase the total credits for the minor.

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## Urban Studies Minor (18 credits)

SOAN 315 Urban Sociology (3)

**Theories and Concepts** *Three credits from the following (3):*

CRIJ 389 World Justice Systems (3)

ECON 312 Economic Development\* (3)

HIST 355 U.S. Urban History (3)

SOAN 331 Sociocultural Theory (3)

SOAN 356 Social Inequality (3)

URBS 306 Urban Issues and Ethical Choices (3)

**Issues** *Three credits from the following (3):*

BIOL 216 Issues in Environmental Science (3)

CRIJ 309 Juvenile Delinquency\* (3)

ECON 110 Economics of Social Issues (3)

ECON 120 Introduction to Economics–Macro Economics (3)

ECON 117 Issues in Environmental Economics (3)

EDUC 346 Socio-Cultural Perspectives on Education (3)

EDUC 355 Education and American Pluralism (3)

HDFS 253 Community Services for Families\* (3)

HDFS/PSYC/SOAN 342 Women and Men in American Society (3)

HDFS 386 Family Ethnicity and Human Services (3)

POLI 320 Ethnic and Racial Politics in America (3)

POLI 323 Public Policy\* (3)

PSYC 242 Community Psychology\* (3)

SOWK 420 Social Welfare Policy and Social Change

THEA 363 Theatre for Social Change (3)

URBS 303 Eco-Urban Footprints (3)

**Research Methods** *Three credits from the following (3):*

POLI 243 Political Research Methods (3)

SOAN 271 Quantitative Research Methods and Statistics\* (3)

SOAN 281 Qualitative Research Methods (3)\*

SOWK 385 Introduction to Research in Social Work (3)

**Applications** *Three credits from the following (3):*

INTE 391 Internship (1-3)

INTE 394 Internship and Monthly Class (4-10)

INTE 395 Internship and Weekly Class (6-12)

URBS 310 Urban Field Experience (3)

SOAN 305 Harrisburg Neighborhoods (3)

SERV 231/SERV 232 Foundations of Service, Mission and Social Change Internship (3)

**Theological Reflections** *Three credits from the following (3):*

BIBL 291 Issues of War, Peace and Social Justice in Biblical Texts (3)

IDCC 260 Urban Cross-Cultural (3)

SOAN 341 Religion and Society (3)

THEO 207 African-American Theology\* (3)

THEO 221 Faith and Society\* (3)

URBS 319/THEO 225 Practical Theology of the Urban Church\* (3)

\*This course requires prerequisite(s), which increases the total credits for the minor.

**Note:** In all categories, courses from Temple University and other study abroad courses may be approved by the minor advisor.

# School of the Arts

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**Dean:** Richard E. Roberson, D.M.A.

**Administrative Assistant:** Kevin Hodes

The School of the Arts fosters excellence through artistic practice and scholarship in a Christian environment. The School of the Arts:

- trains artists through a balance of discipline and exploration.
- develops students towards professional artistry and cultivates aesthetic integrity through critical dialogue.
- grounds students in the history and traditions of their discipline.
- utilizes historical perspectives as a point of departure for individual growth.
- engages the student with experiences in and beyond the classroom.
- collaborates with a wide variety of arts organizations locally, nationally, and internationally.
- encourages analytical, reflective, and expressive responses to the Christian faith through artistic mediums.
- orients students to serving the community through the arts.

The following academic departments and programs are housed in the School of the Arts:

- Department of Music
- Department of Theatre and Dance
- Department of Visual Arts
- Graduate program in Conducting

## MUSIC

<b>Department Chair:</b>	William J. Stowman
<b>Assistant Chair:</b>	Timothy D Dixon
<b>Administrative Assistant:</b>	Kelly Arthey
<b>Professors:</b>	T. Dixon, R. Roberson, W. Stowman
<b>Associate Professors:</b>	R. Cornacchio, B. Genevro, T. Goranson, M. Harcrow
<b>Assistant Professors:</b>	P. Ewoldt, E. Forst, D. Savarino
<b>Artist in Residence:</b>	L. Tedford
<b>Senior Lecturers:</b>	E. Henderson, R. Zwally

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## Majors and Minors

The Department of Music offers the following majors:

- Music (B.A.) *with concentrations in:*
  - Christian Music Studies
  - Commercial Music
  - Composition
- Music (Business) (B.A.)
- Music Education with K-12 Teaching Certification (B.S.)
- Music Performance (Bachelor of Music in Performance)

The Department of Music offers minors in General Music and Church Music.

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## Program Requirements

The Music (B.A.) curriculum offers a basic education in music with three options for concentration: Christian Music Studies, commercial music, or composition. In addition, this degree offers the opportunity to minor in a non-music area. The B.S. in Music leads to Pennsylvania certification to teach all areas of music in public schools. The B.M. in Performance gives students the

opportunity to focus on performance skills. The B.A. in Music (Business) combines music training with a basic training in business, and prepares students to work in an arts non-profit organization.

### Music Application and Audition

Students who wish to enroll in a music program must complete a one-page music application form and schedule an audition. After acceptance into the College as an entering student, a prospective music major should schedule a music audition through the Music Office. The audition includes evaluation in the following areas:

- Skill level in one principal area of performance. Prospective music majors are asked to prepare two contrasting selections for solo performance at the audition. If you are currently taking private lessons, be sure to consult your teacher who will help you select appropriate music.
- Skill level on the piano. Applicants are asked to demonstrate at least an elementary skill at the keyboard. You are encouraged to play a prepared selection at the audition.
- Ability to sight-sing. You will be asked to sing at sight several melodies, employing either a neutral syllable ("la") or sol-feggio.

### Performance Expectations for Music Majors

All music majors are required to perform publicly. Each semester, students majoring in music are required to register for MUSI 001 Concert Attendance. Each week music students and music faculty assemble for Performance Class, a period devoted to solo and small group performance. Minimal performance requirements are as follows: freshmen are expected to perform one time during the academic year; sophomores, juniors, and seniors are expected to perform one time each semester (except when student teaching); all fourth-year students present a shared senior recital. In addition, all music majors demonstrate progress in their principal area of performance through Music Juries held at the end of the semester.

### Change of Applied Major

Students wishing to change their applied area of study must re-audition in the new applied area. A student may surrender departmental scholarship money for the original applied area based on the results of the audition in the new applied area.

Please visit <http://www.messiah.edu/music> for a complete detailed listing of departmental and degree requirements. From the Department of Music homepage, choose "Current Students" then "Department Handbook."

### Keyboard Proficiency Policy

All music majors will register for Keyboard I in order to prepare for the Piano Proficiency Exam. Students who successfully pass the Piano Proficiency Exam at the end of the Fall semester, will fulfill the other keyboard credit with any music course. Students who do not pass (or attempt) the Piano Proficiency exam in the fall will register for Keyboard II in the Spring semester. Students who do not pass the Piano Proficiency Exam at the end of the Spring Semester, will register for MUAP Piano lessons until the exam is passed. Students are allowed three attempts to pass the Piano Proficiency Exam.

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### Music Performance (B.M.) (78 credits)

MUAP 1XX Applied Music (4 hours/semester) (32)

MUEN XXX Ensembles (8)

Three credits from the following (3):

MUSI 343 Piano Pedagogy (3)

MUSI 344 Instrumental Pedagogy (3)

MUSI 452 Vocal Pedagogy (3)

Junior Recital (solo preferred; may be joint with faculty permission)

Senior Recital (solo only)

**Supportive Courses in Music**

*One credit from the following (1):*

MUED 140 Voice Class (1) (all majors except voice)

MUED 240 Diction for Singers (1) (all voice majors)

MUED 251 Conducting I: Fundamentals (2)

*Two credits from the following (2):*

MUED 351 Conducting II: Choral (2)

MUED 352 Conduction II: Instrumental (2)

MUMH 303 History of Music I (2)

MUMH 304 History of Music II (3)

MUMH 305 History of Music III (3)

MUMH 338 Studies in Ethnic Music (2)

MUTH 101 Music Theory I (3)

MUTH 102 Music Theory II (3)

MUTH 107 Sight Singing and Ear Training I (1)

MUTH 108 Sight Singing and Ear Training II (1)

MUTH 109 Keyboard I (1)

MUTH 110 Keyboard II (1)

MUTH 201 Music Theory III (3)

MUTH 202 Music Theory IV (3)

MUTH 207 Sight Singing and Ear Training III (1)

MUSI 001 Concert Attendance (0)

MUSI 291 Coaching Techniques (1)

*One credit from the following (1):*

MUSI 301 Vocal Literature (1)

MUSI 302 Instrumental Literature (1)

MUSI 303 Keyboard Literature (1)

MUSI 481 Senior Seminar in Music (1)

Piano Proficiency Exam

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**Music Education with K-12 Teaching Certification (B.S.)**

(101 credits)

MUAP xxx Applied Music (12)

MUED 140 Voice Class I (1)

MUED 201 Intro to Music Education (.5 Special Education) (1)

MUED 211 String Class (1)

MUED 221 Percussion Class (1)

MUED 222 Brass Class (1)

MUED 251 Conducting I: Fundamentals (2)

MUED 301 Curriculum and Instruction: 6-12 Choral Music (with Field Experience .5 Special Education) (3)

MUED 311 Woodwind Class (1)

*Two credits from the following (2):*

MUED 351 Conducting II: Choral (2)

MUED 352 Conducting II: Instrumental (2)

MUED 401 Curriculum and Instruction: Instrumental Music 4-12 (with Field Experience) (3)

MUED 402 Curriculum and Instruction: K-5 General Music (with Field Experience/.5 Special Education) (3)

MUED 407 Student Teaching Seminar (1)

MUEN xxx Music Ensembles (6)

MUMH 303 History of Music I (2)

MUMH 304 History of Music II (3)

MUMH 305 History of Music III (3)

MUMH 338 Studies in Ethnic Music (2)

MUSI 001 Concert Attendance

MUSI elective (3)

MUSI 481 Senior Seminar (1)

MUTH 101 Music Theory I (3)

MUTH 102 Music Theory II (3)

MUTH 107 Sight Singing and Ear Training I (1)

MUTH 108 Sight Singing and Ear Training II (1)

MUTH 109 Keyboard I (1)

MUTH 110 Keyboard II (1)

MUTH 201 Music Theory III (3)

MUTH 202 Music Theory IV (3)

MUTH 207 Sight Singing and Ear Training III (1)

Piano Proficiency Exam

Senior Recital (solo or joint)

EDUC 201 Education and American Society (3)

EDUC 203/PSYC 203 Educational Psychology (.5 Special Education) (3)

EDSP 207 Introduction to Special Education (3)

EDUC 308 Instruction and Assessment with English Language Learners (3)

EDSP 307 Inclusion Practices (3)

ENGL 122 to ENGL 176 Literature meeting General Education (3)

MATH/CIS/STAT XXX meeting General Education (6)

TEP 210 Sophomore Field Experience (25 hrs.) (0)

TEP 310 Junior Field Experience (0)

TEP 413 Student Teaching Experience in Music (0)

TEP 438 Student Teaching Music (8)

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**Music (Business) (B.A.) (73 credits)**

ACCT 141 Financial Accounting (3)

BUSA 120 Principles of Management (3)

BUSA 381 Business Law I: The Legal Foundation for Business (3)

CIS 190 Strategic Use of Information Technology (3)

ECON 120 Introduction to Economics – Macro Economics (3)

INTE 394 Internship and Monthly Seminar (4)

MATH 107 Applied Math for Management (3)

MRKT 230 Marketing Principles (3)

STAT 281 Applied Statistics for Management (3)

*Six credits from the following (6):*

BUSA 380 Small Business Development (3)

BUSA 382 Business Law II: The Legal Environment (3)

CIS 343 Introduction to E-Commerce (3)

MRKT 337 Advertising (3)

MRKT 357 Personal Selling (3)

Applied Major Courses (MUAP) (9)

ARTM 401 Arts Management (3)

MUEN 112 Choral Arts Society (0.5)

MUEN xxx Music Ensemble elective (0.5)

MUMH 303 History of Music I (2)

MUMH 304 History of Music II (3)

MUMH 305 History of Music III (3)

MUMH 338 Studies in Ethnic Music (2)

MUTH 101 Music Theory I (3)

MUTH 102 Music Theory II (3)

MUSI 481 Senior Seminar in Music (1)

*Nine credits to be selected from the following (9):*

MUED 227 Instrument Repair (3)

MUED 251 Conducting I: Fundamentals (2)

MUEN Music Ensemble electives (1-3)

MUEN 149 Opera Workshop (.5)

MUSI 271/THEA 260 Musical Theatre (3)

MUSI 343 Piano Pedagogy (3)

MUSI 452 Vocal Pedagogy (3)

MUTH 201 Music Theory III (3)

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**Music (B.A) (57 credits)**

MUAP xxx Applied Music (8)  
MUED 140 Voice Class (1)  
MUED 251 Conducting I: Fundamentals (2)  
MUEN xxx Music Ensembles (6)  
MUMH 303 History of Music I (2)  
MUMH 304 History of Music II (3)  
MUMH 305 History of Music III (3)  
MUMH 338 Studies in Ethnic Music (2)  
MUSI 001 Concert Attendance (0)  
MUSI 481 Senior Seminar in Music (1)  
MUTH 101 Music Theory I (3)  
MUTH 102 Music Theory II (3)  
MUTH 107 Sight Singing and Ear Training I (1)  
MUTH 108 Sight Singing and Ear Training II (1)  
MUTH 109 Keyboard I (1)  
MUTH 110 Keyboard II (1)  
MUTH 201 Music Theory III (3)  
MUTH 202 Music Theory IV (3)  
MUTH 207 Sight Singing and Ear Training III (1)  
Piano Proficiency Exam  
Senior Recital (solo or joint)  
12 additional credits of MUAP or MUSI electives, or one of the following concentrations:

**Christian Music Studies\* (9-14 credits)**

MUAP xxx Applied Music (3)  
MUGE 209 Survey of Christian Song (3)  
*One to three credits from the following (1-3):*  
MUCM 431 Foundations of Music Ministry (3)  
MUCM 443 Practicum in Church Music (1-2)  
MUSI Electives (3-5)

**Commercial Music\* (12 credits)**

ARTM 401 Arts Management (3)  
MUAP 167 Applied Jazz Improvisation (3)  
MUCM 336 Music Business (3)  
MUCM 351 Electronic Music and MIDI (3)  
MUGE 223 Jazz Improvisation (3)  
One semester at Contemporary Music Center, artist or business track (12)

\*Students in Christian Music Studies or in Commercial Music are encouraged to investigate the Contemporary Christian Music Program at Martha's Vineyard (<http://www.bestsemester.com>). Credits taken during the one semester program at Martha's Vineyard can be transferred for credit into the Messiah College program.

**Composition (12 credits)**

MUAP 181 Applied Composition Lessons (8)  
MUCM 351 Electronic Music and MIDI (3)  
Music (MUAP, MUEN, or MUSI) Electives (1)

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**General Music Minor (18 credits)**

MUAP xxx Applied Music (4)  
MUTH 101 Music Theory I (3)  
MUTH 102 Music Theory II (3)  
MUTH 107 Sight Singing and Ear Training I (1)  
MUTH 108 Sight Singing and Ear Training II (1)  
*Three credits from the following (3):*  
MUMH 304 History of Music II (3)  
MUMH 305 History of Music III (3)  
MUAP, MUSI, or MUEN Electives (3)

**Church Music Minor (18 credits)**

MUAP xxx Applied Music (3)  
MUCM 431 Foundations of Music Ministry (3)  
MUED 251 Conducting I: Fundamentals (2)  
MUGE 209 Survey of Christian Song (3)  
MUTH 101 Music Theory I (3)  
MUTH 107 Sight Singing and Ear Training I (1)  
Music (MUAP, MUEN, or MUSI) Electives (3)

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## THEATRE AND DANCE

**Department Chair:** Tymberley A. Whitesel  
**Administrative Assistant:** Kevin Hodes  
**Professor:** V. Smith  
**Associate Professors:** E. Cohn, T. Whitesel  
**Lecturer:** G. Hurley

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**Majors and Minors**

The Department of Theatre and Dance offers the following majors:

Dance (B.A.)  
Digital Media (B.A.) *with a concentration in Church Media* (See Interdisciplinary Majors and Minors for details)  
Musical Theatre (B.F.A.)  
Theatre (B.A.) *with emphases in:*  
Acting  
Directing  
Technical Production and Design  
Theatre (Business) (B.A.)

The Department of Theatre and Dance offers minors in Theatre and Dance.

The Department of Theatre and Dance offers a rigorous exploration of historic and contemporary theatre practice within a vibrant liberal arts program. Our curriculum cultivates the stewardship of intellect and imagination through a variety of Christian perspectives. In a dynamic exchange between learning and doing, students engage theatre through a wealth of hands-on experiences. Our students participate in theatre and dance as a forum for civic dialogue where history, culture, politics, and religion meet to give form and meaning to the human experience. Upon graduation, our students are prepared not only to meet the artistic and technical challenges of 21st century theatre, but also to serve and lead a new generation of artists and scholars.

The Department also contributes to General Education at Messiah College. It offers a variety of courses in theatre that are designed to fulfill the College's General Arts requirement. The Department sponsors theatrical productions and lectures that are attended by the Messiah community as well as residents of the Harrisburg area.

**Auditions**

Students wishing to major in Theatre, Musical Theatre, or Dance must complete an audition for acceptance into the program. Two days are scheduled annually for auditions in February and March. Students may also schedule auditions at other times during the year if they are not able to attend on the scheduled audition days. For more information please contact the Chair of the Department of Theatre and Dance.



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## Dance

The Dance major at Messiah College leads to a B.A. degree with an emphasis in the development of the well-rounded and versatile dance artist. Our curriculum includes technical course work in ballet, modern, jazz, tap and dance ministry. Performance and choreographic opportunities as well as course study in dance history; dance pedagogy, arts management, and kinesiology prepare students for careers in dance performance, dance education, dance ministry, graduate school, and other related fields in dance. Like all arts dance is a significant form of human expression and communication, a way of knowing and understanding the world, and a means of serving God and other people.

### Dance (B.A.) (38-40 credits)

DANC 101, 201, 301, 401 Ballet I, II, III, IV (4)  
DANC 102, 202, 302, 402 Jazz and Dance Theatre I, II, III, IV (4)  
DANC 103, 203, 303, 403 Modern I, II, III, IV (4)  
DANC 104, 204 Tap I, II (2)  
DANC 105 Dance Pedagogy (2)  
DANC 111 Dance Performance Ensemble (.5 each, 2 credits total)  
DANC 304 Dance Ministry (2)  
DANC 305 Dance History (2)  
DANC 470 Dance Capstone Practicum (1-3)

*Two credits from the following (2):*

DANC 314 Improvisation (2)  
DANC 404 Choreography (2)

*Three credits from the following (3):*

DANC xxx (2-3)  
DANC 381 Dance Practicum (1-3)  
DANC 491 Independent Study (1-3)  
MUGE 101 Fundamentals of Music Theory (3)  
MUTH 101 Music Theory I (3)  
THEA 120 Introduction to Acting (3)  
THEA 260/MUSI 271 Musical Theatre (3)  
THEA 361 Creative Dramatics (3)

ARTM 401 Arts Management (3)  
HPED 321 Kinesiology (3)  
THEA 115 Production Practicum (1)  
THEA 150 Introduction to Technical Theatre/Design (3)  
THEA 475 Theatre Capstone Seminar (3)

### Dance Minor (18 credits)

DANC 101 Ballet I (1)  
DANC 102 Jazz and Dance Theatre I (1)  
DANC 103 Modern Dance I (1)  
DANC 104 Tap Dance I (1)  
DANC 201 Ballet II (1)  
DANC 301 Ballet III (1)  
DANC 305 Dance History (2)  
DANC 401 Ballet IV (includes pointe) (1)

*Nine credits from the following:*

DANC 202 Jazz and Dance Theatre II (1)  
DANC 203 Modern Dance II (1)  
DANC 204 Tap Dance II (1)  
DANC 302 Jazz and Dance Theatre III (1)  
DANC 303 Modern Dance III (1)  
DANC 402 Jazz and Dance Theatre IV (1)  
DANC 403 Modern Dance IV (1)  
DANC 304 Dance Ministry (2)  
DANC 105 Dance Pedagogy (2)  
DANC 404 Choreography (2)

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## Musical Theatre

The BFA in Musical Theatre provides professional training in the skills needed to perform in musical theatre. An interdisciplinary degree, students gain skills in theatre, dance, and music. The department offers frequent fully-mounted musical theatre productions, and in the senior year students complete a senior project in musical theatre and have the opportunity to audition before professional agents.

### Musical Theatre (B.F.A.) (84 credits)

#### Theatre/Dance Core (60 credits)

THEA 115 Production Practicum (1 cr/semester for 5 credits)  
THEA 120 Introduction to Acting (3)  
THEA 150 Introduction to Technical Theatre and Design (3)  
THEA 220 Voice and the Actor (3)  
THEA 225 Movement and the Actor (3)  
THEA 230 Fundamentals of Play Directing (3)  
THEA 240 Survey of Dramatic Literature and Criticism (3)  
THEA 260/MUSI 271 Musical Theatre (3 cr/semester for 9 credits)  
THEA 320 Acting Techniques (3)  
THEA 325 Acting Techniques for Musical Theatre (3)  
THEA 341 History of Theatre II (3)  
THEA 420 Audition Techniques (3)  
THEA 470 Theatre Capstone Practicum (3)  
THEA 475 Theatre Capstone Seminar (3)  
DANC 101 Ballet I (1)  
DANC 102 Jazz and Theatre Dance I (1)  
DANC 103 Modern Dance I (1)  
DANC 104 Tap Dance I (1)  
DANC 201 Ballet II (1)  
DANC 202 Jazz and Theatre Dance II (1)  
DANC 203 Modern Dance II (1)  
DANC 204 Tap Dance II (1)  
DANC 404 Choreography (2)

#### Music Core (24 credits)

MUAP 111 Applied Voice (10)

*Two credits selected from the following:*

MUAP 121 Applied Piano (1-2)  
MUTH 109 Keyboard Class I (1)  
MUTH 110 Keyboard Class II (1)

*Two credits selected from the following:*

MUEN 113/115 Men's/Women's Ensemble (0.5)  
MUEN 114 JazzSingers (0.5)  
MUEN 149 Opera Workshop (0.5)

MUTH 101 Music Theory I (3)  
MUTH 102 Music Theory II (3)  
MUTH 107 Sightsinging and Eartraining I (1)  
MUTH 108 Sightsinging and Eartraining II (1)  
MUED 251 Conducting I: Fundamentals (2)

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## Theatre

The Theatre major at Messiah College leads to a B.A. degree with an emphasis in acting, directing, or technical production and design. Our curriculum includes course work in dramatic literature, theatre history, and theory as well as applied studio courses in acting, directing, and technical production and design. Our program is designed to develop students' creative gifts as they gain knowledge and experience in a variety of educational settings.

### Enrichment Program

We recognize that professional theatre thrives in urban centers. For this reason, we believe it is essential for students to learn about

themselves and their craft in the city. Enrichment credits may be earned at department-approved programs throughout North America and Europe during the Fall of the junior year. Our students have enriched their Grantham education through theatre training at the Gaiety School of Acting, Dublin; Royal Holloway, University of London; The Wesley Institute, Sydney Australia; the Eugene O'Neill Institute and internships with professional theatre companies.

Students return to the Grantham campus during the second semester of the junior year to continue course work and propose a Senior Capstone Project. This portfolio project represents the culmination of the student's training and serves as a bridge to graduate programs, professional theatre, or other job opportunities.

### **Acting Emphasis**

The acting emphasis at Messiah College offers students the benefits of individualized attention in an intimate environment. Studio courses, workshops, and master classes are complemented by a robust season that includes three mainstage, one black-box, and several student-directed productions each year. The J-Term provides an intensive exploration of musical theatre or theatre for young audiences culminating in a fully mounted production.

### **Directing Emphasis**

The directing emphasis is designed to equip directors with both foundational and intimate knowledge of the theatrical process. Directors apply course work in directing theory, acting, design, and production to studio projects as well as to a fully mounted, one-act play in the Senior Capstone Project.

### **Technical Production and Design Emphasis**

The technical production and design emphasis is structured to provide students with more than just working skills. Along with learning about and experiencing some of the current technological advances in theatre production, our curriculum assists students in developing an aesthetic perception of their art. With a combination of classroom and realized production and design experiences, students will learn the communication skills necessary to work effectively not only with actors and directors, but also with other designers and technicians.

### **Theatre (B.A.) (50 credits)**

#### **Theatre Core Credits (27–29 credits)**

THEA 115 Production Practicum (1)  
 THEA 120 Introduction to Acting (3)  
 THEA 150 Introduction to Technical Theatre and Design (3)  
 THEA 240 Survey of Dramatic Literature and Criticism (3)  
 THEA 340 History of Theatre I: Antiquity to Renaissance (3)  
 THEA 341 History of Theatre II: Renaissance to Postmodernism (3)  
 THEA 470 Theatre Capstone Practicum (1–3)  
 THEA 475 Theatre Capstone Seminar (3)

**Enrichment Program (11 credits)** A minimum of 11 credits at a department approved enrichment institution **OR** 11 credits of Theatre or Dance Electives (not to include more than two Dance Studio Credits).

*One or more of the following Emphases:*

#### **Acting Emphasis (12 credits)**

THEA 220 Voice and the Actor (3)  
 THEA 225 Movement and the Actor (3)  
 THEA 320 Acting Techniques (3)  
 THEA XXX Theatre elective (3)

### **Directing Emphasis (12 credits)**

ENGL 310 British Literature Before 1800: Shakespeare (3)  
 THEA 230 Fundamentals of Play Directing (3)  
 THEA 320 Acting Techniques (3)  
 THEA XXX Elective in Theatre (3)

### **Technical Production and Design Emphasis (12 credits)**

THEA 230 Fundamentals of Play Directing (3)  
 THEA 350 Scenographic Techniques (3)  
 THEA 450 Theatre Design (3)  
 THEA XXX Elective in Theatre (3)

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## **Theatre (Business)**

This degree requires students to do extensive work in theatre; so that they have a “hands-on” understanding of an artist's life and work. Students will also receive a thorough background in business, giving them the tools to make the sound financial decisions, which enable and support the artistic work of any arts organization. Preparation in the arts and business will come together in specific training for arts management, including a required internship with a local arts organization.

### **Theatre (Business) (B.A.) (72-73 credits)**

ACCT 141 Financial Accounting (3)

*Two to three credits from the following (2-3):*

ARTH 210 Topics in Non-Western Art (3)  
 MUMH 338 Studies in Ethnic Music (2)

ARTM 401 Arts Management (3)

*Six credits from the following (6):*

CIS 343 Introduction to E-commerce (3)  
 BUSA 380 Small Business Development (3)  
 BUSA 382 Business Law II: The Legal Environment for Business (3)  
 MRKT 337 Advertising (3)  
 MRKT 357 Personal Selling (3)

BUSA 120 Principles of Management (3)  
 BUSA 381 Business Law I: The Legal Foundation for Business (3)  
 CIS 190 Strategic Use of Information Technology (3)  
 ECON 120 Introduction to Economics – Macro Economics (3)  
 INTE 394 Internship and Monthly Seminar (4)  
 MATH 107 Applied Math for Management (3)  
 MRKT 230 Marketing Principles (3)  
 STAT 281 Applied Statistics for Management (3)  
 THEA 110 Introduction to Theatre (3)  
 THEA 115 Production Practicum (3)  
 THEA 150 Introduction to Technical Theatre and Design (3)  
 THEA 240 Survey of Dramatic Literature and Criticism (3)  
 THEA 250 Stage Management (3)  
 THEA 340 History of Theatre I (3)  
 THEA 341 History of Theatre II (3)  
 THEA 470 Theatre Capstone Practicum (3)  
 THEA 475 Theatre Capstone Seminar (3)  
 THEA xxx Theatre electives (6)

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### **Theatre Minor (18 credits)**

THEA 115 Production Practicum (1)  
 THEA 120 Introduction to Acting (3)  
 THEA 150 Introduction to Technical Theatre and Design (3)  
 THEA Electives (11) Minimum of 11 additional credits from the Theatre curriculum

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# VISUAL ARTS

<b>Department Chair:</b>	Christine A. Forsythe
<b>Administrative Assistant:</b>	Jean McCauslin
<b>Professors:</b>	S. Caroselli, C. Forsythe, D. Forsythe, K. Hettinga
<b>Associate Professors:</b>	D. Finch, D. Kasperek
<b>Assistant Professors:</b>	B. Good, S. Matthews

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## Majors and Minors

The Department of Visual Arts offers the following majors:

- Art (Business) B.A.
- Art Education with K-12 Teaching Certification (B.S.) *with concentrations in:*
  - Graphic Design and Digital Art
  - Three-Dimensional Studies
  - Two-Dimensional Studies
- Art History (B.A.)
- Digital Media (B.A.) *with concentration in* Art and Design (See Interdisciplinary Majors and Minors)
- Studio Art (B.F.A./B.A.) *with concentrations in:*
  - Graphic Design and Digital Art
  - Three-Dimensional Studies
  - Two-Dimensional Studies

The Department of Visual Arts offers minors in Art History and Studio Art.

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## Studio Art

The Department of Visual Art offers majors leading to a B.A. and B.F.A. in Studio Art, a B.A. in Art History, a B.S. and M.A. in Art Education and interdisciplinary degrees in Arts (Business) (B.A.) and Digital Media (B.A.). The majors provide a strong curriculum and thorough training in the visual arts within the framework of a liberal arts education and with a commitment to a Christian world view. Our goals are to foster excellence in the arts and to serve God and society through the use and development of creative gifts. The program has been accredited by the National Association of Art and Design (NASAD), and by the Pennsylvania Department of Education (P.D.E.). The department sponsors a complete exhibition calendar as well as annual lectures that are attended by the Messiah community and residents of the Harrisburg area. The department takes advantage of the close proximity to several large metropolitan areas and takes department-wide semi-annual trips to the museums in New York and other cities.

The Climenhaga Building houses part of the art facilities along with the theatre & dance programs. The studio spaces include drawing and painting, printmaking, and photography. Also, the Auginbaugh Gallery—located in the Climenhaga Building—hosts several exhibitions yearly. The gallery exhibits works from nationally known artists, the art faculty, and the students. Frey Hall houses studio spaces for sculpture, ceramics, fibers, and graphic design. It contains the art education room, a seminar room, and specially equipped art history classrooms. In addition, The Warehouse is the studio building for senior studios with open key access 24/7. The studios are well maintained with appropriate equipment for the processes that are taught within each area.

**Studio Art Major** at Messiah College leads to a B.A. degree. The major is designed to provide students with both breadth and depth. Students begin the curriculum with a five-course foundation sequence: Visual Literacy, Introduction to Art History, and a

drawing course are taken in the first year, along with a selection of two foundational design courses completed in the sophomore year. Students also begin a four course art history sequence which includes a survey of the history of Western Art and Modern Art History. The studies in art history are normally completed by the junior year. In the sophomore year, art students begin to select individual studio courses from three areas: Graphic Design and Digital Art (computer art, multimedia, web, app design and graphics), Two-Dimensional Studies (drawing, painting, photography and printmaking), or Three-Dimensional Studies (in ceramics, paper and book processes, sculpture, furniture, fiber arts). During their senior year, which must be spent on the Grantham Campus) studio art majors prepare an exhibit of work in their area of study. At the completion of their program art students should demonstrate a knowledge of several areas of the visual arts and depth in one area.

**The Bachelor of Fine Arts (B.F.A.) in Studio Art** has the same concentrations in Three-Dimensional Studies, Two-Dimensional Studies and Graphic Design and Digital Art that are currently available in the B.A. degree only with the opportunity for more intensive study geared to the student's interest. The program will train professional artists to the highest level possible for undergraduate students and will be especially valuable for those who plan to go on to graduate school. The program balances 21 credits of art history, seminar, and aesthetics with 57 credits in studio for a total of 78 credits in the visual arts. Students must apply for acceptance into this program in or after their third semester, which is during their sophomore review. Students must plan on spending their senior year on the Grantham campus to execute a body of work for exhibition.

## Sophomore Review

All Studio Art and Art Education majors are required to go through the sophomore review at the end of their sophomore year. This review is typically held in November and March. Students are required to present a portfolio of the work that they have accomplished thus far in their program to a panel of studio faculty. The faculty rate the student's work which will fall into: the top third, middle third and bottom third categories. Students in the bottom third category are urged to create a plan with the help of their advisor to reevaluate their goals and to plan for methods of improvement. All Art students must maintain a 2.0 GPA or above in their major to continue in the program.

## List of Courses:

All foundation studios are offered every semester. However, many of these courses are offered only on a rotation basis.

Art Education Courses: ART 201, 331, 355, 356, 407

Capstone Core Courses: ART 483, 485, 487, 493, 494

Ceramics Courses: ART 220, 221, 320

Digital Art Courses: ART 112, 211, 236, 237, 336, 337, 338, 312, 347, 411, 420, 431, 437

Drawing Courses: ART 171, 271, 339, 371, 372

Foundational Core Courses: ART 110, 182, 282, ARTH 111

General Education Courses: ART 103, 107, 130, 136, 143, 171, 182, 211, 215, 220, 221, 224, 232, 234, 237, 251, 262, 263, 282, 312, 330, 332, 334, 364

Painting Courses: ART 143, 215, 315, 415

Photography Courses: ART 251, 352, 353

Printmaking Courses: ART 232, 330, 332, 442

Sculpture Courses: ART 262, 263, 283, 364, 462

Fibers Courses: ART 224, 234, 334, 438  
Additional Art courses: ART 136, 360

**Concentrations.** Studio Art majors along with Art Education majors choose from one of the three concentrations to do in-depth studio study. Students must take a minimum of five courses in their concentration.

**Graphic Design and Digital Art** (computer art, multimedia, web, app design, and graphic design). Students use the latest programs that are included in the Adobe Creative Suite CS6 Design & Web Premium such as InDesign, Illustrator, Photoshop, Flash, Lightroom and Dreamweaver in our Macintosh lab system, which is continually updated. Students choose from a variety of course work that will develop students' skills and aesthetic sensibilities in the production of computer-generated art work, graphic-oriented materials and Web animation and design.

**Three-Dimensional Studies** (ceramics, paper and book processes, sculpture, furniture, and fiber arts). Three Dimensional Studies concentration offers the student an array of coursework in sculpture and the fine crafts. Students can select from a variety of sculptural processes and furniture design, as well as study ceramics, learn the process of throwing, handbuilding, clay making, and glaze firing. They can also choose to study fiber processes such as weaving, wearable arts, and dyeing, printing and painting on fabric. In addition, students can study papermaking and book structures.

**Two-Dimensional Studies** (drawing, painting, photography and printmaking). This concentration emphasizes the study of a variety of media and processes that are traditionally used to produce two-dimensional work. Students choose to study from an extensive menu of related course work including courses such as: figure drawing, illustration, lithography, intaglio and relief printmaking, and various levels of painting and both film and digital photography courses.

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#### **Studio Art (B.A.) (57 credits)**

ART 110 Visual Literacy (3)  
ART 171 Foundations of Drawing (3)  
ART 182 Color and Design (3)  
ART 282 Form, Space, and Media (3)  
ARTH 111 Introduction to Art History (3)

*Three credits from the following (3):*

ARTH 150 Art History I: Ancient through Medieval Art (3)  
ARTH 151 Art History II: Renaissance–Contemporary Art (3)

ARTH 209 History of Modern Art (3)  
ARTH 2xx Elective Art History (3) (200 level or above)  
ART 493 Art Seminar (3)  
ART 494 Senior Exhibit (3)

Students must take three different processes, one 300 level course, and Advanced Studies to complete the 15 total credits within the concentration, in addition to 12 credits in Cross Concentration Studies.

#### **Graphic Design and Digital Art Concentration**

ART 237 Typography and Visual Communications (3)  
ART 483 Advanced Graphic Design and Digital Art (3)

*Three credits from the following (3):*

ART 211 Computer Art and Imaging (3)  
ART 312 Digital Prints: Concepts and Structures (3)

*Three credits from the following (3):*

ART 236 Graphic Design and Visual Culture (3)  
ART 336 Design for New Media (3)  
ART 337 Graphic Design and Professional Practice (3)  
ART 431 Motion Design: Video, Animation, Communication (3)

*Three credits from the following (3):*

ART 338 Digital Illustration: Editorial and Narrative (3)  
ART 347 Publication Portfolio: Design as Service (3)  
ART 420 Designer as Author: Book Design, Zines (3)

#### **Cross-Concentration Studies for Graphic Design and Digital Art**

*Six credits from Two-Dimensional Studies (6):*

ART 215 Painting I (3)  
ART 251 Photography (3)  
ART 271 Intermediate Drawing (3)  
ART 339 Illustration (3)  
ART 372 Figure Drawing (3)

*OR three credits from the following printmaking electives (3):*

ART 232 Screen Printing (3)  
ART 330 Intaglio and Relief Printmaking (3)  
ART 332 Lithography (3)

*Six credits from Three-Dimensional Studies (6):*

ART 136 Paper Processes (3)  
ART 283 Furniture Design (3)

*OR three credits from the following ceramics electives (3):*

ART 220 Ceramics I: Wheel Techniques (3)  
ART 221 Ceramics I: Handbuilding (3)

*OR three credits from the following textiles electives (3):*

ART 224 Dyeing, Printing and Manipulating Fabric (3)  
ART 234 Weaving Techniques (3)  
ART 334 Wearable Art (3)

*OR three credits from the following sculpture electives (3):*

ART 262 Construction and Assemblage (3)  
ART 263 Carving (3)  
ART 364 Casting (3)

#### **Three-Dimensional Studies Concentration**

ART 485 Advanced Three-Dimensional Studies (3)

*Nine credits from the following (9):*

ART 136 Paper Processes (3)  
ART 283 Furniture Design (3)

*OR three credits from the following ceramics electives (3):*

ART 220 Ceramics I: Wheel Techniques (3)  
ART 221 Ceramics I: Handbuilding (3)

*OR three credits from the following textiles electives (3):*

ART 224 Dyeing, Printing and Manipulating Fabric (3)  
ART 234 Weaving Techniques (3)  
ART 334 Wearable Art (3)

*OR three credits from the following sculpture electives (3):*

ART 262 Construction and Assemblage (3)  
ART 263 Carving (3)  
ART 364 Casting (3)

*Three credits from the following (3):*

ART 320 Advanced Ceramics (3)  
ART 438 Advanced Textiles Processes (3)  
ART 462 Advanced Sculpture (3)

*OR an additional textile elective (3):*

ART 224 Dyeing, Printing and Manipulating Fabric (3)  
ART 234 Weaving Techniques (3)  
ART 334 Wearable Art (3)

*OR an additional sculpture elective (3):*

ART 262 Construction and Assemblage (3)  
ART 263 Carving (3)  
ART 364 Casting (3)

**Cross-Concentration Studies for 3-Dimensional Studies**

Six credits from *Graphic Design and Digital Art* (6):

Three credits from the following (3):

ART 112 Intro to Graphic Design Problem Solving (3)

ART 236 Graphic Design and Visual Culture: (3)

ART 237 Typography and Visual Communications (3)

Three credits the following (3):

ART 211 Computer Art and Imaging (3)

ART 312 Digital Prints: Concepts and Structures (3)

ART 338 Digital Illustration: Editorial and Narrative (3)

Six credits from *Two-Dimensional Studies* (6):

ART 215 Painting I (3)

ART 251 Photography (3)

ART 339 Illustration (3)

ART 372 Figure Drawing (3)

**OR** three credits from the following *Printmaking electives* (3):

ART 232 Screen Printing (3)

ART 330 Intaglio and Relief Printmaking (3)

ART 332 Lithography (3)

**Two-Dimensional Studies Concentration**

ART 487 Advanced Two-Dimensional Studies (3)

Nine credits from the following (9):

ART 215 Painting I (3)

ART 251 Photography (3)

ART 271 Intermediate Drawing (3)

ART 339 Illustration (3)

**OR** three credits from the following *printmaking electives* (3):

ART 232 Screen Printing (3)

ART 330 Intaglio and Relief Printmaking (3)

ART 332 Lithography (3)

Three credits from an advanced two-dimensional elective (3):

ART 315 Painting II (3)

ART 352 Digital Photography (3)

ART 353 Historical Techniques and Advanced Photo (3)

ART 371 Advanced Drawing (3)

**OR** an three credits from an additional *Printmaking elective* (3):

ART 232 Screen Printing (3)

ART 330 Intaglio and Relief Printmaking (3)

ART 332 Lithography (3)

**OR** an three credits from an additional *Drawing course* (3):

ART 271 Intermediate Drawing (3)

ART 372 Figure Drawing (3)

**Cross-Concentration Studies for Two-Dimensional Studies**

Six credits from *Graphic Design and Digital Art* (6):

Three credits from *graphic design and digital art* (3):

ART 112 Intro to Graphic Design Problem Solving (3)

ART 236 Graphic Design and Visual Culture (3)

ART 237 Typography and Visual Communications (3)

Three credits from the following (3):

ART 211 Computer Art and Imaging (3)

ART 312 Digital Prints: Concepts and Structures (3)

ART 338 Digital Illustration: Editorial and Narrative (3)

Six credits from *three-dimensional studies* (6):

ART 136 Paper Processes (3)

ART 283 Furniture Design (3)

**OR** three credits from the following *ceramics electives* (3):

ART 220 Ceramics I: Wheel Techniques (3)

ART 221 Ceramics I: Handbuilding (3)

**OR** three credits from the following *textile electives* (3):

ART 224 Dyeing, Printing and Manipulating Fabric (3)

ART 234 Weaving Techniques (3)

ART 334 Wearable Art (3)

**OR** three credits from the following *sculpture electives* (3):

ART 262 Construction and Assemblage (3)

ART 263 Carving (3)

ART 364 Casting (3)

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**Studio Art (B.F.A.) (81 credits)**

ART 110 Visual Literacy (3)

ART 171 Foundations of Drawing (3)

ART 182 Color and Design (3)

ART 282 Form, Space, and Media (3)

PHIL 101 Problems of Philosophy (3) **or**

PHIL 102 History of Philosophy (3)

PHIL 342 Aesthetics (3)

ART 493 Art Seminar (3)

ART 494 Senior Art Exhibit (3)

ARTH 111 Introduction to Art History (3)

ARTH 150 Art History I: Ancient through Medieval Art (3)

ARTH 151 Art History II: Renaissance through Contemp. Art (3)

ARTH 209 History of Modern Art (3)

ARTH 210 Topics in Non-Western Art (3)

**Graphic Design and Digital Art Concentration (24 credits)**

ART 483 Advanced Graphic Design and Digital Art (3)

21 credits from the following:

ART 211 Computer Art and Imaging (3)

ART 236 Graphic Design and Visual Culture (3)

ART 237 Typography and Visual Communications (3)

ART 312 Digital Prints: Concept and Structures (3)

ART 336 Design for New Media (3)

ART 337 Graphic Design and Professional Practice (3)

ART 338 Digital Illustration: Editorial and Narrative (3)

ART 347 Publication Portfolio: Design as Service (3)

ART 411 Advanced Computer Art (3)

ART 420 Designer as Author: Book Design, Zines (3)

ART 431 Motion Design (3)

ART 437 Graphic Design III (3)

**Cross-concentration studies.** Select nine credits from one cross-concentration and six credits from the other for a total of 15 credits.

Six or nine credits from *Two-Dimensional Studies* (6-9):

ART 215 Painting I (3)

ART 251 Photography (3)

ART 271 Intermediate Drawing (3)

ART 339 Illustration (3)

**OR** three credits following *printmaking electives* (3):

ART 232 Screen Printing (3)

ART 330 Intaglio and Relief Printmaking (3)

ART 332 Lithography (3)

Six or nine credits from *Three-Dimensional Studies* (9):

ART 136 Paper Processes (3)

ART 283 Furniture Design (3)

**OR** three credits from the following *Ceramics electives* (3):

ART 220 Ceramics I: Wheel Techniques (3)

ART 221 Ceramics I: Hand-building (3)

**OR** three credits from the following *Textiles electives* (3):

ART 224 Dyeing, Printing and Manipulating Fabric (3)

ART 234 Weaving Techniques (3)

ART 334 Wearable Art (3)

**OR** three credits from the following *Sculpture electives* (3):

ART 262 Construction and Assemblage (3)

ART 263 Carving (3)

ART 364 Casting (3)

One additional three credit Studio Art Elective (3)

### Three-Dimensional Studies Concentration (24 credits)

ART 485 Advanced Three-Dimensional Studies (3)

*21 credits from the following:*

- ART 136 Paper Processes (3)
- ART 220 Ceramics I: Wheel Techniques (3)
- ART 221 Ceramics I: Handbuilding (3)
- ART 224 Dyeing, Printing and Manipulating Fabric (3)
- ART 234 Weaving Techniques (3)
- ART 262 Construction and Assemblage (3)
- ART 263 Carving (3)
- ART 283 Furniture Design (3)
- ART 320 Advanced Ceramics (3)
- ART 334 Wearable Art (3)
- ART 364 Casting (3)
- ART 438 Advanced Textiles Processes (3)
- ART 462 Advanced Sculpture (3)

**Cross-concentration studies.** Select nine credits from one cross-concentration and six credits from the other for a total of 15 credits.

*Six or nine credits from Two-Dimensional Studies (6-9):*

- ART 215 Painting I (3)
- ART 251 Photography (3)
- ART 271 Intermediate Drawing (3)
- ART 339 Illustration (3)
- OR three credits following printmaking electives (3):*
  - ART 232 Screen Printing (3)
  - ART 330 Intaglio and Relief Printmaking (3)
  - ART 332 Lithography (3)

*Six or nine credits from Graphic Design and Digital Art (6-9):*

- Three or six credits from the following:*
  - ART 112 Introduction to Graphic Problem Solving (3)
  - ART 236 Graphic Design and Visual Culture (3)
  - ART 237 Typography and Visual Communication (3)
  - ART 336 Design for New Media (3)
  - ART 337 Graphic Design and Visual Practice (3)
  - ART 431 Motion Design (3)

*Three or six from the following:*

- ART 211 Computer Art and Imaging (3)
- ART 312 Digital Prints: Concept and Structures (3)
- ART 338 Digital Illustration (3)
- ART 347 Publication Portfolio (3)
- ART 420 Designer as Author (3)

### Two-Dimensional Studies Concentration (24 credits)

ART 487 Advanced Two-Dimensional Studies (3)

*21 credits from the following:*

- ART 215 Painting I (3)
- ART 232 Screen Printing (3)
- ART 251 Photography (3)
- ART 271 Intermediate Drawing (3)
- ART 315 Painting II (3)
- ART 330 Intaglio and Relief Printmaking (3)
- ART 332 Lithography (3)
- ART 339 Illustration (3)
- ART 352 Digital Photography (3)
- ART 353 Historical Techniques and Advanced Photography (3)
- ART 371 Advanced Drawing (3)
- ART 372 Figure Drawing (3)

**Cross-concentration studies.** Select nine credits from one cross-concentration and six credits from the other for a total of 15 credits.

*Take three or six credits from the following:*

- ART 112 Introduction to Graphic Problem Solving (3)

ART 236 Graphic Design and Visual Culture: Seeing, Thinking, Making (3)

ART 237 Typography and Visual Communications (3)

ART 336 Design for New Media

ART 431 Motion Design (3)

*Take three or six credits from the following:*

- ART 211 Computer Art and Imaging (3)
- ART 312 Digital Prints: Concept and Structure (3)
- ART 338 Digital Illustration: Editorial and Narrative (3)
- ART 347 Publication Portfolio: Design as Service (3)
- ART 420 Designer as Author: Book Design, Zines

*Take six or nine credits Three-Dimensional Studies concentration*

ART 136 Paper Processes (3)

ART 283 Furniture Design (3)

*OR three credits from the following Ceramics electives (3):*

ART 220 Ceramics I: Wheel Techniques (3)

ART 221 Ceramics I: Hand-building (3)

*OR three credits from the following Textile electives (3):*

ART 224 Dyeing, Printing and Manipulating Fabric (3)

ART 234 Weaving Techniques (3)

ART 334 Wearable Art (3)

*OR three credits from the following Sculpture electives (3):*

ART 262 Construction and Assemblage (3)

ART 263 Carving (3)

ART 364 Casting (3)

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### Studio Art Minor (18 credits)

*Three credits from the following (3):*

ART 171 Foundations of Drawing (3)

ART 182 Color and Design (3)

ART 237 Typography and Visual Communications (3)

ART 282 Form, Space, and Media (3)

*Three credits from the following (3):*

ARTH 150 Art History I: Ancient through Medieval Art (3)

ARTH 151 Art History II: Renaissance—Contemporary Art (3)

*12 additional credits of ART electives (12)*

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### Art (Business) Major

The Art (Business) degree prepares graduates for work in non-profit arts organizations such as galleries, museums, and art associations of all types. Students will receive training in both the arts and business, so that they may make sound decisions in both areas. It will also enable them to effectively communicate with both the artists with whom they work, and the business-oriented supporters of the arts organization.

The degree requires students to do extensive work in the visual arts, so that they have a “hands-on” understanding of an artist’s life and work. Students will also receive a thorough background in business, giving them the tools to make the sound financial decisions, which enable and support the artistic work of the organization. Preparation in the arts and business will come together in specific training for arts management, including a required internship with a local arts organization.

### Art (Business) (B.A.) (70 credits)

ACCT 141 Financial Accounting (3)

BUSA 120 Principles of Management (3)

BUSA 381 Business Law I: The Legal Foundation for Business (3)

CIS 190 Strategic Use of Information Technology (3)

ECON 120 Introduction to Economics– Macro Economics (3)

INTE 394 Internship and Monthly Seminar (4)

MATH 107 Applied Math for Management (3)  
MRKT 230 Marketing Principles (3)  
STAT 281 Applied Statistics for Management (3)  
*Six credits from the following (6):*

BUSA 380 Small Business Development (3)  
BUSA 382 Business Law I (3)  
CIS 343 Introduction to E-commerce (3)  
MRKT 337 Advertising (3)  
MRKT 357 Personal Selling (3)

#### **Visual Arts Emphasis**

ARM 401 Arts Management (3)  
ART 171 Foundations of Drawing (3)  
ART 182 Color and Design (3)  
ART 282 Form, Space and Media (3)  
ART 493 Art Seminar (9)

*Three credits from the following:*

ARTH 150 Art History I (3)  
ARTH 151 Art History II (3)

ARTH 209 History of Modern Art (3)  
ARTH 210 Topics in Non-Western Art (3)  
One three-credit course from each studio concentration area (9)  
Additional Studio Art elective (3)

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### **Art Education Major**

The Art Education major at Messiah College leads to a B.S. degree with teaching certification (K-12) accredited by the Pennsylvania Department of Education (P.D.E.). It is a demanding program with 127 credits necessary for graduation, but one that students have found very rewarding and an excellent preparation for a teaching career. The program combines the strength of two different areas for student who are interested in becoming an 'artist educator'. The Art Education major will complete the same curriculum as the studio major, which includes choosing a concentration (as listed in the Studio Art section) with the exception of one course. In addition, Art Education majors take the required education and art education curriculum as required by the P.D.E. Students in the Art Education major will matriculate through the major finishing with their Professional Semester of student teaching in the spring of their senior year. Art Education Majors are required to apply to the Teacher Education Program in their sophomore year prior to taking 300 level education course work and they must maintain a 3.0 GPA. Art Education majors are also required to take the appropriate PAPA and Praxis tests required by the P.D.E. and obtain their "Good Character" clearances.

#### **Art Education with K-12 Teaching Certification (B.S.) (97 credits)**

ART 110 Visual Literacy (3)  
ART 171 Foundations of Drawing (3)  
ART 182 Color and Design (3)  
ART 201 Introduction to Art Education (1)  
ART 282 Form, Space, and Media (3)  
ART 331 Art Instructional Design and Assessment (.5 Special Education) (3)  
ART 355 Elem Curriculum Strategies (.5 Special Education) (3)  
ART 356 Second. Curriculum Strategies (.5 Special Education) (3)  
ART 407 Student Teaching Seminar (1)  
ART 493 Art Seminar (3)  
ARTH 111 Introduction to Art History (3)

*Three credits from the following (3):*

ARTH 150 Art History I: Ancient through Medieval Art (3)  
ARTH 151 Art History II: Renaissance through Contemporary Art (3)

ARTH 209 History of Modern Art (3)  
ARTH 210 Topics in Non-Western Art (3)  
Concentration (one of three from Studio Art) (15)  
Cross-concentration studies (two each from two other concentrations) (12)  
MATH/CIS/STAT XXX fulfilling General Education (6)  
EDSP 207 Introduction to Special Education (3)  
EDSP 307 Inclusion Practices (3)  
EDUC 201 Education and American Society (3)  
EDUC 203/PSYC 203 Educational Psychology (.5 Special Education) (3)  
EDUC 308 Instruction and Assessment with English Language Learners (3)  
ENGL 122 to ENGL 176 Literature meeting General Education (3)  
TEP 210 Sophomore Field Experience (25 hrs.) (0)  
TEP 310 Junior Field Experience (0)  
TEP 412 Pre-Student Teaching Experience in Art (0)  
TEP 437 Student Teaching: Art (8)

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### **Art History Major**

Students studying Art History will earn a B.A. in Art History. The major at Messiah College is designed to give students knowledge of the art and architecture of Europe, Western Asia, and the Western Hemisphere.

Upper-level courses focus on a specific place or period, or will be worked around a theme such as spirituality and abstract art, artists and the theater, or biblical themes in the Middle Ages and Renaissance. In the junior and senior years, students will spend one or two semesters in approved programs in the United States or abroad. Students must be on the Grantham Campus for their capstone courses.

#### **Art History (B.A.) (42 credits)**

*Three credits from the following foundational studio courses (3):*

ART 103 Introduction to Drawing (3)  
ART 171 Foundations of Drawing (3)  
ART 182 Color and Design (3)

*Three credits from the following process studio courses (3):*

ART 107 Introduction to Painting (3)  
ART 136 Paper Processes (3)  
ART 143 Intro to Watercolor (3)  
ART 215 Painting I (3)  
ART 220 Ceramics I: Wheel(3)  
ART 221 Ceramics I: Handbuilding (3)  
ART 224 Dyeing, Printing and Manipulating Fabric (3)  
ART 232 Screen Printing (3)  
ART 234 Weaving (3)  
ART 251 Photography (3)  
ART 262 Construction and Assemblage (3)  
ART 263 Carving (3)  
ART 282 Form, Space, and Media (3)  
ART 330 Intaglio and Relief Printmaking (3)  
ART 332 Lithography (3)  
ART 364 Casting (3)

ARTH 111 Introduction to Art History (3)  
ARTH 150 Art History I: Ancient through Medieval Art (3)  
ARTH 151 Art History II: Renaissance – Contemporary Art (3)

*Twelve credits from the following (12):*

ARTH 209 History of Modern Art (3)  
ARTH 210 Topics in Non-Western Art (3)  
ARTH 302 Topics in 19<sup>th</sup>. and 20<sup>th</sup>-Century Art (3)

ARTH 303 Topics in Ancient and Early Christian Art(3)

ARTH 304 Topics in Medieval and Renaissance Art (3)

ARTH 305 Topics in Reformation and Baroque Art (3)

ARTH 490 Art History Seminar (3)

ARTH 492 Art History Capstone (3)

Nine additional credits in art history, museum studies, or other approved courses

**Note:** ARTH 111, 150, and 151 must be taken at the Grantham Campus; Art History majors must be on the Grantham Campus for their senior year.

**Art History Minor (18 credits)**

ARTH 111 Introduction to Art History (3)

ARTH 150 or ARTH 151 Art History I or II (3)

12 additional credits in Art History (12)



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# School of Business, Education and Social Sciences

**Dean:** Caroline Maurer, Ph.D.

**Administrative Assistant:** Tracy Thomas

The School of Business, Education and Social Sciences prepares students to lead and serve by applying their understanding of human thought and development, culture, learning, and social and economic structures to complex social issues and systems in order to bring reconciliation and hope to the church and to society. The School provides:

- Intellectually challenging and faith affirming programs in a wide variety of disciplinary and interdisciplinary areas;
- Rich and carefully constructed majors that prepare students with the knowledge, skills and attitudes to serve faithfully and effectively in multiple professional settings;
- Preparation for graduate study including opportunities for students to engage in research with faculty and staff;
- A strong focus on experiential learning and community engagement in local, national and international settings;
- Partnerships with schools, businesses, non-profit organizations and social service agencies;
- An understanding of how our disciplines can support our Christian calling to bring redemption, reconciliation, and justice to a world in need

The following academic departments and programs are housed in the School of Business, Education and Social Sciences:

- Department of Education
- Department of Human Development and Family Science
- Department of Management and Business
- Department of Psychology
- Department of Social Work
- Department of Sociology, Anthropology and Criminal Justice
- Early Learning Center
- International Business Institute
- Graduate Programs in Counseling, Education, and Higher Education
- Teacher Education Program

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## EDUCATION

**Department Chair:** Donald A. Murk

**Administrative Assistant:** Allyson Patton

**Professors:** M. Gaither, D. Murk

**Associate Professors:** J. Barnes, J. Fisler, O. Mfum-Mensah, A. Voelker, D. Wright

**Assistant Professors :** C. Buckley, M. Burchard, J. Dormer, M. Yacapsin

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### Mission

The Department of Education provides opportunities for students to study the dynamic and complex field of education. The mission of the Messiah College Department of Education is to develop exemplary educators who apply their knowledge, skills, Christian faith, and ethical principles to decision making, reflective thinking, and problem solving in diverse learning environments.

The Department of Education offers the following majors that lead to a B.S. degree and Pennsylvania Instructional I teacher certification:

Education with Teaching Certification in Grades PreK-4 (B.S.)

Education with Dual Teaching Certification in Grades PreK-4 and Special Education PreK-8 (B.S.)

Education with Teaching Certification in Grades 4-8 (B.S.)

*with concentrations in:*

English	Math
Math and English	Math and Social Studies
Science	Social Studies
Science and English	Science and Math
Science and Social Studies	

Educational Studies (B.A.)

The Department of Education offers the following minors:

Education

Early Childhood Education (and Private Nursery School Certification)

Socio-Cultural Perspectives on Education

Teaching English to Speakers of other Languages (TESOL)

In addition to the Department of Education Programs, Messiah College also offers several additional teacher preparation programs leading to Pennsylvania Instructional I certification. All of these programs are part of Messiah College's Teacher Education Program. For detailed program requirements, see the sponsoring academic department indicated for each.

### Certification areas for grades 7-12:

Biology (Biological Sciences)

Chemistry (Chemistry and Biochemistry)

English (English)

Mathematics (Information and Mathematical Sciences)

Physics (Information and Mathematical Science)

Social Studies (History)

### Certification areas for grades K-12:

Art (Visual Arts)

Environmental Education (must be combined with Biology Certification)

ESL, English as a Second Language (Education)

Family and Consumer Sciences Education (Human Development and Family Science)

French (Modern Languages)

German (Modern Languages)

Health and Physical Education (Health and Human Performance)

Music (Music)

Spanish (Modern Languages)

See **Teacher Education Program** for detailed information regarding specific policies and procedures that govern certification requirements for all teacher preparation programs.

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### Early Learning Center

The **Early Learning Center** is located in the lower level of Hostetter Chapel on the College campus, and offers year-round child care for College employees and students, and a half-day Lab School program open to the community. Under the supervision of the Director and Master level teachers, this NAEYC accredited program serves as a site for early childhood observations and pre-service teacher education. The Early Learning Center is dedicated to providing a model of high quality early childhood programming for the College and the community.

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## Education with Teaching Certification in PreK-4

The PreK-4 Education Program prepares students to teach pre-school, kindergarten, and grades 1 through 4 in public or private institutions. The major emphasis is on the growth and development of “the whole child” with developmentally appropriate instructional activities.

Through the academic program, faculty advising, and extensive field experiences, students are broadly prepared for effective teaching in elementary schools and early childhood settings. Thinking, problem-solving, and decision-making capabilities are developed in critical areas such as instructional planning, instructional delivery, assessment, and classroom management. Particular attention also is given to subject matter preparation.

Effective early childhood and elementary school teaching requires an extensive knowledge base that represents many curricular domains. Students develop this knowledge base by studying a wide variety of subjects such as English, psychology, sociology, history, philosophy, biology, fine arts, mathematics, physical science, language arts, health, social studies, and geography. In addition, students have the opportunity to deepen their knowledge of a particular subject of their choice by completing a 12-credit disciplinary focus.

With an Early Learning Center on campus, Messiah College provides an authentic setting for experience in teaching and directing a pre-school. A unique and significant aspect of the program is that students not only teach, but learn how to establish and maintain a positive classroom climate as well. Student teachers assume the responsibilities of coordinating staff schedules, directing the Center’s curriculum and creating and teaching their own curriculum.

### Education with Teaching Certification in Grades PreK-4 (B.S.) (95 credits)

ART/MUGE/THEA meeting General Education requirement (3)  
BIOL 106 Life Science (3)

*Three credits from the following (3):*

CIS 180 Intro to Computer and Information Science (3)

CIS 181 Computer Programming I (3)

CIS 171 Problem Solving with Computers (3)

EDSP 207 Introduction to Special Education (3)

EDSP 307 Inclusion Practices (3)

EDUC 201 Education and American Society (3)

EDUC 205 Cultural and Political Geography (3)

EDUC 212 Language Development (2)

EDUC 226 Children’s Literature (3)

EDUC 301 Literacy: Climate, Curriculum and Instruction I (2)

EDUC 302 Literacy: Climate, Curriculum and Instruction II (3)

EDUC 303 Mathematics: Climate, Curriculum and Instruction I (2)

EDUC 304 Mathematics: Climate Curriculum & Instruction II (2)

EDUC 308 Instruction and Assessment with English Language Learners (3)

EDUC 312 Development, Cognition and Learning of Young Children (3)

EDUC 330 Instructional Design and Assessment for Elementary Education and Early Childhood Education (3)

EDUC 342 Social Studies: Climate, Curriculum and Instruction for Elementary School (3)

EDUC 347 Science: Climate, Curriculum & Instruction Elem (3)

EDUC 407 Student Teaching Seminar (1)

EDUC 414 Developmental Programming: Curriculum and Instruction for Early Childhood (3)

EDUC 415 Evidence-based Practices in ECE (3)

EDUC 420 Professional Issues in Education (2)

EDUC 430 Instructional Design II (1)

EDUC 465 Early Childhood Internship (0)

ENGL 160 Introduction to World Literature (3)

*Three credits from the following (3):*

HIST 141 U.S. History Survey to 1865 (3)

HIST 142 U.S. History Survey Since 1865 (3)

MATH 209/EDUC 209 Principles & Structures of Mathematics (3)

PHSC 102 Foundations of Physical Science (3)

PSYC 310/HDFS 310 Child Development (3)

TEP 210 Sophomore Field Experience (0)

TEP 311 Field Experience II in PreK-Grade 2 (0)

TEP 312 Field Experience III in Grade 2-4 (0)

TEP 434 Student Teaching for PreK-4 (8)

Required Disciplinary Focus (12 credits)

All students who major in Education with PreK-4 teaching certification must complete a 12-credit Disciplinary Focus to provide depth in an academic discipline other than Education. Students elect 12 credits from a single academic discipline (or two closely related disciplines) other than Education. The 12 credits may not overlap with any other General Education or major Requirements.

**Course selections must be approved by the advisor and the Department of Education Chair.** Students who wish to complete a college-approved minor will need to take additional courses.

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## Education with Dual Teaching Certification in Grades PreK–4 and Special Education (PreK-8)

The PreK-4 and Special Education Dual Certification Program prepares students to teach regular education in elementary classrooms or to serve as special education teachers. Students who complete the program are eligible for Pennsylvania Instructional I teacher certification in PreK-4 and Special Education (N-8). Students who pursue Special Education certification must complete the dual certification program, majoring in Education with PreK-4 Teaching Certification. Completing the Special Education program satisfies the Disciplinary focus requirement for the major. To be eligible for the Special Education certification program, students must meet all the requirements for admission to the Teacher Education Program (TEP). In addition to satisfying all TEP admissions procedures and requirements, students who wish to pursue the SPED dual certification program must take and Introduction to Special Education (EDSP 207), with a GPA of 3.0 (grade of B) or better. Written endorsement of the instructor of EDSP 207 is also required for admission to the Special Education certification program.

### Education with Dual Teaching Certification in Grades PreK–4 and Special Education PreK-8 (B.S.) (98 credits)

ART/MUGE/THEA meeting General Education requirement (3)

BIOL 106 Life Science (3)

*Three credits from the following (3):*

CIS 180 Introduction to Computer & Information Science (3)

CIS 181 Computer Programming I (3)

CIS 171 Problem Solving with Computers (3)

EDSP 207 Introduction to Special Education (3)

EDSP 307 Inclusion Practices (3)

EDSP 396/HDFS 396 Infants, Toddlers, and Families (3)

EDSP 397 Instructional Strategies for Learners w/Mild to Moderate Disabilities (3)  
 EDSP 398 Instructional Strategies for Learners w/Severe to Profound Disabilities (3)  
 EDSP 399 Positive Behavior Support for Learners with Emotional, Behavioral and Social Disabilities (3)  
 EDSP 409 Psychological Testing (3)  
 EDUC 201 Education and American Society (3)  
 EDUC 205 Cultural and Political Geography  
 EDUC 212 Language Development (2)  
 EDUC 226 Children's Literature (3)  
 EDUC 301 Literacy: Climate, Curriculum and Instruction I (2)  
 EDUC 302 Literacy: Climate, Curriculum and Instruction II (3)  
 EDUC 303 Mathematics: Climate, Curriculum & Instruction I (2)  
 EDUC 304 Mathematics: Climate Curriculum & Instruction II (2)  
 EDUC 308 Instruction and Assessment with English Language Learners (3)  
 EDUC 209/MATH 209 Principles & Structures of Mathematics (3)  
 EDUC 312 Development, Cognition and Learning of Young Children (3)  
 EDUC 330 Instructional Design I (3)  
 EDUC 342 Social Studies: Climate, Curriculum and Instruction for Elementary School (3)  
 EDUC 347 Science: Climate, Curriculum and Instruction for Elementary School (3)  
 EDUC 407 Student Teaching Seminar (1)  
 EDUC 414 Developmental Programming: Curriculum and Instruction for Early Childhood (3)  
 EDUC 415 Evidence-Based Practices in ECE (3)  
 EDUC 420 Professional Issues in Education (2)  
 EDUC 430 Instructional Design II (1)  
 ENGL 160 Introduction to World Literature (3)  
*Three credits from the following (3):*  
     HIST 141 U.S. History Survey to 1865 (3)  
     HIST 142 U.S. History Survey from 1865 (3)  
 PSYC 310/HDFS 310 Child Development (3)  
 PHSC 102 Foundations of Physical Science (3)  
 TEP 210 Sophomore Field Experience (0)  
 TEP 311 Field Experience II in PreK-Grade 2 (0)  
 TEP 312 Field Experience III in Grade 2-4 (0)  
 TEP 420 Special Education Internship (0)  
 TEP 432 Student Teaching: PreK-4 and Special Education (8)

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### Education with Grade 4–8 Teaching Certification

The Education with Grade 4-8 Teaching Certification program prepares students to teach all subjects in grades four through six and to specialize in one or two subject areas for grades seven and eight. Through the academic program, faculty advising, and extensive field experiences, students are broadly prepared for effective teaching in upper elementary and middle school grades. Thinking, problem-solving and decision-making capabilities are developed in critical areas such as instructional planning and delivery, assessment and classroom management. Particular attention also is given to subject matter preparation.

Students in this program all take the same core of courses. They then choose from one of nine tracks in terms of subject matter.

These tracks are:

**Option I** (12 credits in three subject areas and 30 credits in one of the following):

English	Mathematics
Science	Social Studies

**Option II:** (12 credits in two subject areas and 21 in two of the following, one of which must be mathematics or science):

English	Mathematics
Science	Social Studies

### Education with Teaching Certification in Grades 4-8 (B.S.) (77-80 credits)

BIOL 106 Life Sciences (3)

*Three credits from the following (3):*

CIS 180 Introduction to Computer and Information Science (3)

CIS 181 Computer Programming I (3)

CIS 171 Problem Solving with Computers (3)

EDSP 207 Intro to Special Education (3)

EDSP 307 Inclusion Practices (3)

EDUC 201 Education and American Society (3)

EDUC 203/PSYC 203 Educational Psychology (3)

EDUC 205 Cultural and Political Geography (3)

EDUC 226 Children's Literature (3)

EDUC 302 Literacy: Climate, Curriculum and Instruction II (3)

EDUC 304 Mathematics: Climate, Curriculum and Instruction II (3)

EDUC 305 Middle Level Education (3)

EDUC 308 Instruction and Assessment with English Language Learners (3)

EDUC 209 Principles and Structures of Mathematics (3)

EDUC 331 Instruction Design and Assessment for Middle and Secondary Grades (3)

EDUC 342 Social Studies: Climate, Curriculum and Instruction for Elementary School (3)

EDUC 346 Socio-Cultural Perspectives on Education (3)

EDUC 347 Science: Climate, Curriculum and Instruction for Elementary School (3)

EDUC 407 Student Teaching Seminar (1)

EDUC 420 Professional Issues in Education (2)

ENGL 160 Introduction to World Literature (3) (ENGL 122 to ENGL 176 for all Social Studies concentrations)

ESS 201 Earth and Space Science (3)

*Three credits from the following (both for Social Studies Concentrations) (3):*

HIST 141 US History Survey to 1865 (3)

HIST 142 US History Survey Since 1865 (3)

PHSC 102 Foundations of Physical Science (3)

PSYC 311/HDFS 311 Adolescent Development (3)

TEP 210 Sophomore Field Experience (0)

TEP 313 Field Experience II in Grade 6-8 (0)

TEP 314 Field Experience III in Grades 4-6 (0)

TEP 433 Student Teaching: Grades 4-8 (8)

### Option I: English Concentration (18-19 credits)

*Three credits from the following (3):*

ENGL 310 British Literature Before 1800: Medieval Renaissance English Literature (3)

ENGL 320 British Literature After 1800: Romantic Period (3)

ENGL 330 American Literature Before 1900 (3)

ENGL 360 Genre: Young Adult Literature (3)

ENGL 201 Introduction to English Studies I (3)

ENGL 230 Linguistics (3)

Six credits from the following (6):

- ENGL 203 Introduction to Creative Writing (3)
- ENGL 305 Writing (3)
- ENGL 370 Critical Theory (3)

Three to four credits from (3-4):

- MATH 101 Introduction to Mathematical Sciences (3)
- MATH 102 The Mathematics of Growth (3)
- MATH 108 Intuitive Calculus with Applications (3)
- MATH 111 Calculus I (4)

**Option I: Math Concentration (21 credits)**

- MATH 111 Calculus I (4)
- MATH 112 Calculus II (4)
- MATH 307 Secondary Mathematics/Physics Instruction (2)

Three credits from the following (3):

- STAT 269 Introductory Statistics (3)
- STAT 291 Statistics for Mathematical Sciences I (3)

Four credits from the following (4):

- MATH 211 Calculus III (4)
- PHYS 201 Introductory Physics I (4)
- PHYS 211 General Physics I (4)

Four credits from the following (4):

- PHYS 201 Introductory Physics I (4)
- PHYS 202 Introductory Physics II (4)
- PHYS 211 General Physics I (4)
- PHYS 212 General Physics II (4)

**Option I: Science Concentration (21 credits)**

- BIOL 315 Environmental Ethics (3)

Three credits from the following (3):

- BIOL 117 Field Biology (3)
- BIOL 160 Molecular and Cellular Biology (4)
- BIOL 161 Animal Form and Function (3)
- BIOL 162 Plant Form and Function (3)
- BIOL 258 Human Biology (4)

Three credits from the following (3):

- CHEM 102 Chemistry for Living (3)
- CHEM 103 Chemical Science (4)
- CHEM 105 General Chemistry I (4)
- CHEM 106 General Chemistry II (4)

Three to four credits from (3-4):

- MATH 101 Introduction to Mathematical Sciences (3)
- MATH 102 The Mathematics of Growth (3)
- MATH 108 Intuitive Calculus with Applications (3)
- MATH 111 Calculus I (4)

Four credits from the following (4):

- PHYS 201 Introductory Physics I (4)
- PHYS 202 Introductory Physics II (4)

**Option I: Social Studies Concentration (18-19 credits)**

- ECON 110 Economics of Social Issues (3) **or**
- ECON 120 Introduction to Economics- Macro Economics (3)
- HIST 171 World Civilizations: Bronze Age to 1500 (3) **or**
- HIST 172 World Civilizations: 1500 to Present (3)
- HIST 258 Historical Methods (3)
- HIST 3XX Non-Western history elective (3)

Three to four credits from (3-4):

- MATH 101 Introduction to Mathematical Sciences (3)
- MATH 102 The Mathematics of Growth (3)
- MATH 108 Intuitive Calculus with Applications (3)
- MATH 111 Calculus I (4)

- POLI 113 American Government (3)

**Option II: Math and English Concentrations (18 credits)**

- CIS 181 Computer Programming I (3)

Three credits from the following:

- ENGL 310 British Literature Before 1800: Medieval-Renaissance English Literature (3)
- ENGL 320 British Literature After 1800: Romantic Period (3)
- ENGL 330 American Literature Before 1900 (3)
- ENGL 360 Genre: Young Adult Literature (3)
- ENGL 230 Linguistics (3)
- MATH 111 Calculus I (4)
- MATH 307 Secondary Mathematics/Physics Instruction (2)
- STAT 269 Introductory Statistics (3)

**Option II: Math and Social Studies Concentrations (18 credits)**

- CIS 181 Computer Programming I (3)
- HIST 258 Historical Methods (3)
- HIST 3XX Non-western history elective (3)
- MATH 111 Calculus I (4)
- MATH 307 Secondary Mathematics/Physics Instruction (2)
- STAT 269 Introductory Statistics (3)

**Option II: Science and English (18-21 credits)**

- BIOL 315 Environmental Ethics (3)

Three to four credits from the following (3-4):

- CHEM 102 Chemistry for Living (3)
- CHEM 103 Chemical Science (4)
- CHEM 105 General Chemistry I (4)
- ENGL 230 Linguistics (3)
- ENGL 310 British Literature Before 1800: Medieval-Renaissance English Literature (3)
- ENGL 320 British Literature After 1800: Romantic Period (3)
- ENGL 330 American Literature Before 1900 (3)
- ENGL 360 Genre: Young Adult Literature (3)

Three to four credits from (3-4):

- MATH 101 Introduction to Mathematical Sciences (3)
- MATH 102 The Mathematics of Growth (3)
- MATH 108 Intuitive Calculus with Applications (3)
- MATH 111 Calculus I (4)

Three to four credits from the following (3-4):

- BIOL 117 Field Biology (3)
- PHYS 201 Introductory Physics I (4)

**Option II: Science and Math (21-22 credits)**

- BIOL 117 Field Biology (3)
- BIOL 315 Environmental Ethics (3)
- Three to four credits from the following (3-4)
  - CHEM 102 Chemistry for Living (3)
  - CHEM 103 Chemical Science (4)
  - CHEM 105 General Chemistry I (4)
  - PHYS 201 Introductory Physics I (4)
- MATH 111 Calculus I (4)
- MATH 307 Secondary Mathematics/Physics Instruct (2)
- Three credits from the following (3):
  - STAT 269 Introductory Statistics (3)
  - STAT 291 Statistics for Mathematical Sciences I (3)
- Three to four credits from the following (3-4):
  - CIS 284 Computer Programming II (3)
  - MATH 112 Calculus II (4)
  - MATH 261 Linear Algebra (3)
  - STAT 292 Statistics for Mathematical Sciences II (3)

## Option II: Science and Social Studies (18-21 credits)

Three to four credits from the following (3-4):

- CHEM 102 Chemistry for Living (3)
- CHEM 103 Chemical Science (4)
- CHEM 105 General Chemistry I (4)

Three to four credits from the following (3-4):

- BIOL 117 Field Biology (3)
- PHYS 201 Introductory Physics I (4)
- BIOL 315 Environmental Ethics (3)
- HIST 258 Historical Methods (3)
- HIST 3XX Non-western History (3)

Three to four credits from (3-4):

- MATH 101 Introduction to Mathematical Sciences (3)
- MATH 102 The Mathematics of Growth (3)
- MATH 108 Intuitive Calculus with Applications (3)
- MATH 111 Calculus I (4)

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## Education Studies (B.A.)

Enrollment in the Educational Studies major is only open to students currently in a Department of Education teacher certification major and who: a) have junior status and b) have been recommended and approved by the Department of Education. This major cannot be student initiated. Departmental recommendation for this major is only granted when the student is not approved for enrollment in the field-based experiences the junior or senior year, the Professional Semester, or it has been determined that the student cannot successfully complete the roles and responsibilities of the student teaching experience.

This major will not lead to, nor result in, Messiah College recommending the candidate for Pennsylvania Department of Education public school teacher certification.

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## Minors

### Early Childhood Education Minor (24 credits)\*

- EDSP 207 Intro to Special Education (3)
- EDUC 212 Language Development (2)
- EDUC 301 Literacy: Climate, Curriculum and Instruction I (2)
- EDUC 303 Mathematics: Climate, Curriculum and Instruction I (2)
- EDUC 312 Development, Cognition and Learning of Young Children (3)
- EDUC 325 Preschool Field Experience (0)
- EDUC 414 Developmental Programming: Curriculum and Instruction for Early Childhood (3)
- EDUC 415 Evidence-based Practices in ECE (3)
- HDFS 310/PSYC 310 Child Development (3)

Three credits from the following:

- EDUC 226 Children's Literature (3)
- HDFS 396/EDSP 396 Infants, Toddlers, and Families (3)

\*Students may qualify to teach in private, licensed nursery and/or kindergarten schools by completing the ECE minor (24 credits). Upon completion of these requirements, students are eligible for certification by the Division of Private Academic Schools, Pennsylvania Department of Education, Harrisburg, PA. Students may contact the Division of Private Academic Schools for the required forms.

**Education Minor** The Education Minor is designed to provide students who are not seeking teacher certification the opportunity to explore a variety of topics relevant to the field of Education. The minor is intended to provide students with opportunities to pursue

their professional aspirations, explore areas of personal interest, prepare for graduate study, and prepare for roles as informed parents and citizens. Students who take the minor are required to complete two core courses (six credits). The remaining 12 credits are completed by electing ECE and/or EDUC courses. **The Education Minor does not lead to teacher certification, and students who complete the minor are not eligible for the Professional Semester, including student teaching.** Students are advised to refer to catalog course descriptions for specific course prerequisites.

### Education minor (18 credits)

- EDUC 201 Education and American Society (3)
- EDUC 203/PSYC 203 Educational Psychology (3)

12 credits from the following:

Any 100-, 200-, or 300-level courses in EDUC, with the exception of the following: EDUC 318, EDUC 320, or EDUC 362.

Three (3) credits outside of EDUC may be elected with approval of the Department of Education Chair. Courses elected should represent areas of study that are relevant to the field of Education. Such topics may include (but are not limited to) the following: learning, cognition, development, family relationships, literacy, social theory, assessment, social science research methods, philosophy, and public policy.

**Socio-Cultural Perspectives on Education Minor (18 credits)** The Socio-Cultural Perspectives on Education Minor is designed to provide students with in-depth treatment of sociological and cultural variables that influence educational structures and processes. The minor provides opportunities for interested students to study educational processes and structures that are often associated with urban settings and environments that represent significant degrees of cultural diversity. Students take courses that explore social and theoretical perspectives as well as curricular and instructional perspectives. The minor culminates in a community-based field experience that reflects the student's interests.

- EDUC 201 Education and American Society (3)
- EDUC 346 Socio-cultural Perspectives on Education (3)
- EDUC 362 Education Practicum: Socio-cultural Variability (3)

Nine credits from the following:

- EDUC 354 Comparative and International Education (3)
- EDUC 357 Education Public Policy (3)
- HDFS 384/SOAN 384 Families in America
- HDFS 386 Family Ethnicity and Human Services (3)
- HDFS 383 Topics in Multicultural Family Studies (3)
- HIST 353 Immigrant History
- HIST 355 U.S. Urban History
- SOAN 212 Cultural Anthropology (3)
- SOAN 315 Urban Sociology (3)
- SOAN 305 Harrisburg Neighborhoods (3)
- SOAN 335 Social Conflict, Justice and Peacemaking (3)
- SOAN 356 Social Inequality (3)

Note: Substitution of courses taken in Study Abroad programs may be appropriate. These substitutions must be approved by the Education Department chair.

**Teaching English to Speakers of Other Languages (TESOL) Specialist Certificate or Minor (19 credits)** Courses in theoretical and applied linguistics prepare students to learn, teach, and analyze language using methods and tools from contemporary linguistic theory.

IDCR 151 Created and Called for Community (3) (prerequisite for EDUC 346)

EDUC 308 Instruction and Assessment with English Language Learners (3)

EDUC 309 Advanced TESOL Methods and Assessment (3)

EDUC 346 Socio-Cultural Perspectives on Education (3)

EDUC 408 Seminar and Field Experience in TESOL (4)

ENGL 230 Linguistics (3)

Students already pursuing a PreK-4, Grade 4-8, or Secondary teaching certification who complete the TESOL minor are also eligible for the Pennsylvania ESL Program Specialist (K-12) Certificates.

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## HUMAN DEVELOPMENT AND FAMILY SCIENCE

**Department Chair:** Raeann R. Hamon

**Administrative Assistant:** Deborah Chopka

**Professors:** R. Hamon, J. Reyes

**Associate Professor:** E. Boyd-Soisson

**Instructor:** P. Johns

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### Majors and Minors

The Department of Human Development and Family Science offers the following majors:

Family and Consumer Sciences Education with K-12 Teaching Certification (B.S.)

Human Development and Family Science (B.A.)

Child and Family Services (B.A.) – For TEACH students only

The Department of Human Development and Family Science offers the following minors:

Children and Youth Services

Children and Youth Services for Human Development and Family Science Majors

Gender Studies (see Interdisciplinary Majors and Minors)

Gerontology

Human Development and Family Science

Multicultural Families

Pre-Counseling and Therapy (see Interdisciplinary section)

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### Human Development and Family Science Major

The Human Development and Family Science Major focuses on the development of the individual in the context of family and society with particular attention to interpersonal dynamics. This dynamic program is designed to prepare students for professional careers in a variety of human service areas, including family life education; leadership roles in church, school, and community; personal roles in family living; and graduate school (in marriage and family therapy, family studies, seminary, counseling, or related fields). Key content areas include human development (child development through aging), sexuality, interpersonal relationships, courtship and marriage, parenting, internal dynamics of families, ethics, family diversity, and family resource management, family services, and family life education.

Students majoring in human development and family science take a series of core courses which provide a foundation for understanding the complex issues related to the family. The human development and family science curriculum covers the family life cycle, human development from conception to old age, the individual subsystems within the family (e.g., siblings, parent-child, marital couple), as well as families and their relationship with the external environment and other social systems. In addition, courses in methods of social research, statistics, community services, and family intervention provide the knowledge and skills necessary to either continue study in graduate school or seek employment immediately following graduation. Human development and family science students learn a variety of professional skills including, but not limited to, child observation, interviewing, genogram construction, agency analysis, family life education assessment and program development, as well as conducting and writing literature reviews and research reports. There is significant opportunity for experiential learning, including practical experience.

Human development and family science majors may choose from a wide range of minors within the department such as children and youth services, gerontology, gender studies, multicultural families, and pre-counseling and therapy, or minors outside the department such as Bible, business, communication, early childhood education, music, criminal justice, counseling, and Christian ministries. Students are encouraged to participate in off-campus practica or internships and will find opportunities for professionally supervised participation in family agencies, community mental health centers, adoption and foster care agencies, retirement facilities, hospitals, prisons, crisis pregnancy centers, schools, drug and alcohol rehabilitation facilities, and other service agencies in the area.

### Career Opportunities

Students graduating with a major in human development and family science who do not go on to graduate school typically seek employment as youth services workers, program directors, family life educators, child life specialists, foster care or adoption case managers, activities therapists, residential counselors, family services coordinators, family preservation workers, crisis intervention specialists, parent mentors, therapeutic support specialists, and counselors in public and private agencies dealing with family issues. For more career information, visit <http://www.messiah.edu/departments/family/graduates/ourDeptGrads.html>

Graduates of the Human Development and Family Science Major with careful planning can meet all the standards and criteria needed for the Provisional Certified Family Life Educator (CFLE) designation from the National Council on Family Relations, the premier professional organization for family scientists and practitioners. Professionals certified as Family Life Educators are nationally recognized as having knowledge and skills in each of the ten family life substance areas (e.g., ethics, internal dynamics of families, family life education methodology).

### Human Development and Family Science (B.A.) (51–53 credits)

HDFS 101 Foundations of Marriage and Family (3)

HDFS 142 Introduction to Interpersonal Relations (3)

HDFS 242 Parenting (3)

HDFS 244 Human Sexuality (3)

HDFS 253 Community Services for Individuals and Families (3)

HDFS 272/PSYC 272 Introduction to Social Research (3)

HDFS 310/PSYC 310 Child Development (3)  
HDFS 311/PSYC 311 Adolescent Development (3)  
HDFS 312/PSYC 312 Adult Development (3)  
HDFS 339 Dynamics of Family Interaction (3)  
HDFS 355 Marital Relationships (3)  
*Three credits from the following (3):*  
HDFS 383 Topics in Multicultural Family Studies (3)  
HDFS 386 Family Ethnicity and Human Services (3)  
HDFS 442 Strategies of Family Life Education (3)  
HDFS 494 Human Development and Family Science Seminar (3)  
HDFS xxx Elective (3) \*(HDFS 245 or HDFS 391 recommended)  
*Three credits from the following (3):*  
GERO 231/PSYC 231 Psychology of Aging (3)  
GERO 232/SOAN 232 Sociology of Aging (3)  
GERO 251 Biology, Nutrition, and Healthy Aging (3)  
STAT 269 Introductory Statistics (3)  
*Strongly recommended for first-year students:* HDFS 099 Opportunities in Human Development and Family Science (1)  
\*Courses required for CFLE, but not required for HDFS major

### **Family and Consumer Sciences Education Major**

The Family and Consumer Sciences (FCS) Education program, approved in November of 2003 by the Pennsylvania Department of Education, is an excellent preparation for those students who wish to be certified to teach family and consumer sciences in kindergarten through twelfth grade in public or private schools. The FCS education major is also a wonderful educational background for those who desire to pursue advanced education and become a school guidance counselor, since many schools prefer those with teaching experience for this role.

Crafted to meet the revised academic standards for family and consumer sciences education, the FCS major is a collaborative program which incorporates course work from a variety of disciplines across campus, including human development and family science; nutrition and dietetics; early childhood education; and education. The curriculum includes at least four public school and early learning center practicum/student teaching experiences throughout the four-year program.

Graduates of the Family and Consumer Sciences Education major, with careful planning, can meet all the standards and criteria needed for the Provisional Certified Family Life Educator (CFLE) designation from the National Council on Family Relations, the premier professional organization for family scientists and practitioners. Professionals certified as Family Life Educators are nationally recognized as having knowledge and skills in each of the ten family life substance areas (e.g., internal dynamics of families, parenting, interpersonal relationships, human sexuality, family resource management).

According to the Pennsylvania Association of Family and Consumer Sciences, FCS professionals “develop, integrate, and provide practical knowledge about the things of everyday life—human growth and development; personal behavior; housing and environment; food and nutrition; apparel and textiles; and resource management—that every individual needs every day to make sound decisions which contribute to a healthy, productive, and more fulfilling life” (<http://www.pafcs.org/pafcswhatis.htm>). In short, family and consumer sciences teachers enhance individual, family, and community well-being through the work that they do.

### **Family and Consumer Sciences Education with K-12 Teaching Certification (B.S.) (97 credits)**

HDFS 101 Foundations of Marriage and Family (3)  
HDFS 242 Parenting (3)  
HDFS 244 Human Sexuality (3)  
HDFS 245 Family Resource Management (3)  
HDFS 253 Community Services for Individuals and Families (3)  
HDFS 272/PSYC 272 Introduction to Social Research (3)  
HDFS 307 Family and Consumer Sciences Curriculum and Instruction I (2)  
HDFS 310/PSYC 310 Child Development (3)  
HDFS 312/PSYC 312 Adult Development (3)  
HDFS 339 Dynamics of Family Interaction (3)  
HDFS 355 Marital Relationships (3)  
*Three credits from the following (3):*  
HDFS 383 Topics in Multicultural Family Studies (3)  
HDFS 384/SOAN 384 Families in America (3)  
HDFS 386 Family Ethnicity and Human Services (3)  
HDFS 494 Human Development and Family Science Seminar (3)  
ART 334 Wearable Art (3)  
CIS 171 Problem Solving with Computers (3)  
COMM 105 Fundamentals of Oral Communication (3)  
EDSP 207 Introduction to Special Education (3)  
EDSP 307 Inclusion Practices (3)  
EDUC 201 Education and American Society (3)  
EDUC 203/PSYC 203 Educational Psychology (3)  
EDUC 308 Instruction and Assessment with English Language Learners (3)  
EDUC 331 Instructional Design & Assessment for Middle & Secondary Grades (3)  
EDUC 414 Developmental Programming: Curriculum and Instruction for Early Childhood (3)  
ENGL 122 to ENGL 176 Literature meeting General Education (3)  
NUTR 110 Science and Nutrition (3)  
NUTR 121 Food and Food Science (3)  
NUTR 331 Advanced Food Science and Technology (3)  
STAT 269 Introductory Statistics (3)  
TEP 210 Sophomore Field Experience (0)  
TEP 310 Junior Field Experience (0)  
TEP 410 Secondary Pre-Student Teaching Experience (0)  
**Professional Semester:**  
EDUC 420 Professional Issues in Education (2)  
HDFS 311/PSYC 311 Adolescent Development (3)  
HDFS 407 Family and Consumer Sciences Curriculum and Instruction II (1)  
TEP 435 Student Teaching: Secondary (8)

### **Child and Family Services (B.A.) (63 credits)**

HDFS 101 Foundations of Marriage and Family (3)  
HDFS 142 Introduction to Interpersonal Relationships (3)  
HDFS 242 Parenting (3)  
HDFS 244 Human Sexuality (3)  
HDFS 245 Family Resource Management (3)  
HDFS 253 Community Services for Individuals and Families (3)  
HDFS 310/PSYC 310 Child Development (3)  
HDFS 311/PSYC 311 Adolescent Development (3)  
HDFS 339 Dynamics of Family Intervention (3)  
HDFS 355 Marital Relationships (3)  
*Three credits from the following (3):*  
HDFS 340 Ethics and Families (3)  
HDFS 383 Topics in Multicultural Family Studies (3)  
HDFS 386 Family Ethnicity and Human Services (3)  
HDFS 396/EDSP 396 Infants, Toddlers, and Families (3)

HDFS 494 Human Development and Family Science Seminar (3)  
EDUC 414 Developmental Programming: Curriculum and Instruction for Early Childhood (3)  
EDUC 415 Evidence-based Practices in ECE (3)  
EDUC 465 Early Childhood Internship (0)  
Early Childhood Electives (18)

**Children and Youth Services Minor (20-22 credits)**

HDFS 101 Foundations of Marriage and Family (3)  
HDFS 242 Parenting (3)  
HDFS 310/PSYC 310 Child Development (3)  
HDFS 311/PSYC 311 Adolescent Development (3)

*One the following (3) (Must be completed with children and/or youth populations):*

ADED 485 Internship (3)  
CHRM 391 Practicum (3)  
HEXS 391 Health and Exercise Science Practicum (3)  
INTE 391 Internship (3)  
NURS 313 Nursing Care of Infants, Children, Adolescents (4)  
PSYC 391 Psychology Practicum (3)  
SOAN 391 Sociology and Anthropology Practicum (3)  
SOWK 490 Field Practice in Social Work (3)

*Electives from the following list (5-6):*

CHRM 235 Ministry with Youth I (3)  
CRIJ 309 Juvenile Delinquency (3)  
EDUC 212 Language Development (2)  
EDUC 226 Children's Literature (3)  
HDFS 142 Introduction to Interpersonal Relations (3)  
HDFS 218/ GERO 218 Death, Grief, and Caring (3)  
HDFS 253 Community Services for Individuals & Families (3)  
HDFS 272/PSYC 272 Introduction to Social Research (3)  
HDFS 339 Dynamics of Family Interaction (3)  
\*HDFS 382 Topics in Human Development and Family Science (3)  
HDFS 391 Family Service Practicum (3)  
HDFS 396/EDSP 396 Infants, Toddlers, and Families (3)  
HDFS 491 Independent Study (3)  
\*PSYC 382 Topics in Psychology (3)  
\*SOAN 382 Topics in Sociology and Anthropology (3)  
\*SOWK 382 Topics in Social Work (3)  
THEA 261 Theatre for Young Audiences (3)

\*Departmental Topics and other possible courses must be approved by the Chair of the Department of Human Development and Family Science

**Children and Youth Services Minor for Human Development and Family Science Majors (17-19 credits)**

HDFS 101 Foundations of Marriage and Family (3)  
HDFS 310/PSYC 310 Child Development (3)

*Electives from the following list (8-9):*

CHRM 235 Ministry with Youth I (3)  
CRIJ 309 Juvenile Delinquency (3)  
EDUC 212 Language Development (2)  
EDUC 226 Children's Literature (3)  
GERO 218/HDFS 218 Death, Grief and Caring (3)  
\*HDFS 382 Topics in Human Development and Family Science (3)  
HDFS 391 Family Service Practicum (3)  
HDFS 396/EDSP 396 Infants, Toddlers, and Families (3)  
HDFS 491 Independent Study (3)  
\*PSYC 382 Topics in Psychology (3)  
\*SOAN 382 Topics in Sociology and Anthropology (3)  
\*SOWK 382 Topics in Social Work (3)

THEA 261 Theatre for Young Audiences (3)

*Three to four credits from the following:*

INTE 391 Internship (1-3)  
INTE 394 Internship and Monthly class (4-10)

\*Departmental Topics and other possible courses must be approved by the Chair of the Department of Human Development and Family Science

**Gerontology Minor (18-19 credits)**

GERO 218/HDFS 218 Death, Grief and Caring (3)  
GERO 231/PSYC 231 Psychology of Aging (3)  
GERO 232/SOAN 232 Sociology of Aging (3)  
GERO 251 Biology, Nutrition, and Healthy Aging (3)

*One of the following:*

- GERO 391 Aging Practicum (3, 3) (two separate practica of three credits each or an internship of six credits) **OR** a Department-Specific Discipline Course (listed below) for a total of six credits
- GERO 391 Aging Practicum (3) **OR** three credits of a Department-Specific Discipline Course (listed below) **AND** HDFS 312/PSYC 312 Adult Development (3) Department-Specific Courses (Must be completed with older adult populations.)

ADED 485 Internship (3)  
CHRM 391 Practicum (3)  
HEXS 391 Health and Exercise Science Practicum (3)  
NURS 311 Nursing Care of Adults/Older Adults I (4)\*  
NURS 312 Nursing Care of Adults/Older Adults II (4)\*  
PSYC 391 Psychology Practicum (3)  
SOAN 391 Sociology and Anthropology Practicum (3)  
SOWK 490 Field Practice in Social Work (3)

\*This course requires prerequisite(s), which may increase the total credits required for the major.

**Human Development and Family Science Minor (18 credits)**

HDFS 101 Foundations of Marriage and Family (3)  
HDFS 242 Parenting (3)  
HDFS 244 Human Sexuality (3)  
HDFS 339 Dynamics of Family Interaction (3)

*Three credits from the following (3):*

HDFS 340 Ethics and Families (3)  
\*HDFS 355 Marital Relationships (3)  
HDFS 386 Family Ethnicity and Human Services (3)

*Three credits from the following (3):*

GERO 231/PSYC 231 Psychology of Aging (3)  
GERO 232/SOAN 232 Sociology of Aging (3)  
HDFS 209/PSYC 209 Life Span Development (3)  
HDFS 310/PSYC 310 Child Development (3)  
HDFS 311/PSYC 311 Adolescent Development (3)  
HDFS 312/PSYC 312 Adult Development (3)

\*Preferred

**Multicultural Families Minor (18 credits)**

HDFS 101 Foundations of Marriage and Family (3)  
HDFS 383 Topics in Multicultural Family Studies (3)

*Three credits from the following (3):*

HDFS 384/SOAN 384 Families in America (3)  
HDFS 386 Family Ethnicity and Human Services (3)

*Six credits from the following courses in Philadelphia through Temple University\*:*

AFAM S 3296 The Black Family (3)  
AFAM S 4221 The Black Child: Development and Socialization (3)



LAS 2072 Puerto Ricans in Philadelphia (3)  
AFAM S 3205 The Black Woman (3)  
ASIA ST 2001 Practical Asian Society and Culture (3)  
ASIA ST 3636 Asian Women in Transition (3)  
ANT 2396 Fundamentals of Cultural Anthropology (3)

*Experiential Requirement – Three credits from the following:*

URBS 310 Urban Field Experience (3)  
HDFS 391 Family Service Practicum (3)

Note: Appropriate course substitutions may be made upon the approval of the Department of Human Development and Family Science.

\*The Messiah College Philadelphia Campus will not be an option after 2013-2014. The curricular requirements will be updated; contact your academic advisor for more information.

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## MANAGEMENT AND BUSINESS

**Department Co-Chairs:** Jennifer J. Dose, David J. Hagenbuch  
**Administrative Assistant:** Holly Myers  
**Professors:** J. Dose, R. Johnson, V. LaFrance, M. Zigarelli  
**Associate Professors:** T. Chilcote, D. Hagenbuch, J. Krimmel, C. Ostwald  
**Assistant Professor:** K. Johnston

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### Mission

The mission of the Department of Management and Business is to graduate excellent students of exemplary character who have a Christian world view, a global perspective, and a passion to serve Christ in the marketplace and the world.

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### Majors

The Department of Management and Business offers the following majors:

Accounting (B.S.)  
Business Administration (B.S.) *with concentrations in:*  
    Entrepreneurship  
    Finance  
    Human Resource Management  
    Leadership  
    Technology and Operations Management  
Economics (B.S. or B.A.)  
Economic Development (B.A.)  
International Business (B.S.)  
Marketing (B.S.)

Interdisciplinary majors that incorporate Management and Business courses:

Art (Business) – Department of Visual Arts  
Music (Business) – Department of Music  
Theatre (Business) – Department of Theatre and Dance  
Spanish Business – Department of Modern Language  
Chinese Business – Department of Modern Language  
Computer and Information Science with Business Information Systems concentration – Department of Information and Mathematical Sciences  
Nutrition and Food Services Management – Department of Nutrition

The Department of Management and Business offers the following minors:

Accounting  
Business Administration  
Economics  
Human Resource Management  
Leadership (Details in the Interdisciplinary section)  
Marketing

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### International Business Institute

International Business Institute is designed to give students in business, economics, and related areas a distinctive opportunity for a term of study that incorporates the international dimension of these fields in an experiential context overseas. The program is ten weeks in length and includes periods of residence in key locations as well as coordinated site visits and presentations in the major political and economic centers of Europe, India, and China.

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### Objectives

Upon graduating from Messiah College with a major in the Department of Management and Business students should:

1. Possess leadership, critical thinking, problem solving, and decision-making skills;
2. Demonstrate effective oral, written, and interpersonal communication;
3. Work effectively in teams;
4. Have an appreciation of information technology and be competent in computer use and in computer-related problem-solving;
5. Be able to understand and analyze financial statements;
6. Understand the legal environment of business and be familiar with the primary laws regulating the typical business operation;
7. Have an understanding of the opportunities and implications of globalization for U.S. business and the world community;
8. Have a Christian faith-based approach to moral decision-making and an awareness of ethical issues common in the workplace;
9. Be prepared academically for graduate study;
10. Have developed a biblical work ethic, matured in Christian character and faith, and committed themselves to the stewardship of God's creation.

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### Department Core Requirements

All majors within the Department of Management and Business take foundational courses in accounting, business information systems, business law, economics, finance, management, marketing, and statistics. Students then elect to major in one of five disciplines. Course work offers sound preparation for employment in both public and private accounting, large and small businesses, governmental service, and nonprofit organizations. Students may also choose to enrich their business education program at numerous study abroad locations.

All majors (except the Bachelor of Arts degrees in Economics and Economic Development) are required to take the following core courses to provide a broad background in the area of:

ACCT 141 Financial Accounting (3)  
ACCT 242 Managerial Accounting (3)  
BUSA 102 Opportunities in Business (1)  
BUSA 120 Principles of Management (3)  
BUSA 350 Financial Management (3)

BUSA 381 Business Law I: (3)  
 BUSA 459 Strategic Management (3)  
 CIS 190 Strategic Use of Information Technology (3)  
 ECON 120 Introduction to Economics-Macroeconomics (3)  
 ECON 220 Principles of Microeconomics (3)  
*Three to four credits of the following, based on a student's major (3-4):*  
 MATH 107 Applied Mathematics for Management (3)  
 MATH 108 Intuitive Calculus with Applications (3)  
 MATH 111 Calculus I (4)  
 MRKT 230 Marketing Principles (3)  
 STAT 281 Applied Statistics for Management (3)

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## Accounting Major

This major specifically prepares students to meet the ever-increasing market demand for liberally trained accountants. Messiah College students have the option of concentrating in either public or corporate accounting. After taking a special review course in their senior year, students are prepared for the CPA examination before they graduate. Over the past 20 years, Messiah College students who have taken the CPA exam have ranked in the top five in the state for percentage of parts passed.

### Accounting (B.S.) (61-62 credits)

ACCT 141 Financial Accounting (3)  
 ACCT 242 Managerial Accounting (3)  
 ACCT 301 Intermediate Accounting I (3)  
 ACCT 302 Intermediate Accounting II (3)  
 ACCT 303 Intermediate Accounting III (3)  
 ACCT 343 Cost Accounting (3)  
 ACCT 347 Federal Income Taxes I (3)  
 ACCT 440 Advanced Accounting (3)  
 ACCT 442 Auditing (3)  
 CIS 190 Strategic Use of Information Technology (3)  
 BUSA 102 Opportunities in Business (1)  
 BUSA 120 Principles of Management (3)  
 BUSA 350 Financial Management (3)  
 BUSA 370 Moral Issues in Business (3)  
 BUSA 381 Business Law I: The Legal Foundation for Business (3)  
 BUSA 459 Strategic Management (3)  
 ECON 120 Introduction to Economics – Macro Economics (3)  
 ECON 220 Principles of Microeconomics (3)  
*Three to four credits from the following (3-4):*  
 MATH 107 Applied Mathematics for Management (3)  
 MATH 108 Intuitive Calculus with Applications (3)  
 MATH 111 Calculus I (4)  
 MRKT 230 Marketing Principles (3)  
 STAT 281 Applied Statistics for Management (3)

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## Business Administration Major

The Business Administration Major offers students the opportunity to tailor their curriculum across business disciplines emphasizing career themes such as: 1) general management, 2) development of quantitative analysis skills in a business context, and 3) preparation for management of small businesses and 4) stewardship of human resources. Students not choosing a concentration can customize their degree program by selecting upper-level business courses that meet their career goals.

### Business Administration (B.S.) – Core Courses (37-38 credits)

ACCT 141 Financial Accounting (3)  
 ACCT 242 Managerial Accounting (3)

BUSA 102 Opportunities in Business (1)  
 BUSA 120 Principles of Management (3)  
 BUSA 350 Financial Management (3)  
 BUSA 381 Business Law I: The Legal Foundation for Business (3)  
 BUSA 459 Strategic Management (3)  
 CIS 190 Strategic Use of Information Technology (3)  
 ECON 120 Introduction to Economics – Macro Economics (3)  
 ECON 220 Principles of Microeconomics (3)  
*Three–four credits from the following (the finance concentration requires calculus) (3-4):*  
 MATH 107 Applied Math for Management (3)  
 MATH 108 Intuitive Calculus with Applications (3)  
 MATH 111 Calculus I (4)  
 MRKT 230 Marketing Principles (3)  
 STAT 281 Applied Statistics for Management (3)

### Business Administration Major (no concentration) (21 credits)

*Three credits from the following (3):*

BUSA 356 Decision-Making Tools in Management (3)  
 BUSA 360 Operations Management (3)  
 CIS 381 Information Systems and Managers (3)  
 ECON 302 Managerial Economics (3)

HRM or LEAD 3xx or 4xx course (3)

*Fifteen credits from the following (15):*

300- level or 400-level ACCT, BUSA, ECON, HRM, IBI,  
 LEAD, or MRKT courses  
 Selected CIS courses – see list below\*

\*CIS courses include:

CIS 343 Introduction to E-Commerce (3)  
 CIS 381 Information Systems and Managers (3)  
 CIS 411 Systems Analysis and Design Concepts (3)  
 CIS 412 Systems Analysis and Design Applications (3)

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**Entrepreneurship Concentration (21 credits)** prepares students to start a new venture, be a productive member of an innovative firm, assume responsibilities in a family business, or become a productive manager in a growing business.

*Three credits from the following (3):*

BUSA 356 Decision-Making Tools in Management (3)  
 BUSA 360 Operations Management (3)  
 CIS 381 Information Systems and Managers (3)  
 ECON 302 Managerial Economics (3)

BUSA 380 Small Business Development (3)

BUSA 385 Entrepreneurship (3)

*Three credits from the following (3):*

IBUS 377 Ministry in International Business (3)  
 LEAD 312 Leading Organization Change (3)  
 MRKT 333 Consumer Behavior (3)  
 MRKT 337 Advertising (3)  
 MRKT 357 Personal Selling (3)

MRKT 339 Market Research or Temple MRKT 3511 (3)

*Six credits from the following (6):*

300- level or 400-level ACCT, BUSA, ECON, HRM, IBI,  
 LEAD, or MRKT courses  
 Selected CIS courses – see list above\*

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**Finance Concentration (21 credits)** has been designed specifically for students with career interests in corporate finance, the financial markets, or in financial institutions.

BUSA 351 Investments (3)  
 BUSA 356 Decision-Making Tools in Management (3)  
 BUSA 450 Corporate Finance (3)

ECON 307 Money and Financial Markets (3)  
IBUS 375 International Business and World Economy (3)

*Six credits from the following (6):*

300- level or 400-level ACCT, BUSA, ECON, HRM, IBI,  
LEAD, or MRKT courses

Selected CIS courses – see list above\*

**Note:** Math Requirement from core: MATH 108 or 111

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**Human Resource Management Concentration (21 credits)**

Prepares students to be effective stewards of human capital through evidence-based practices in staffing, compensation, leadership and employee relations.

*Three credits from the following (3):*

BUSA 356 Decision-Making Tools in Management (3)  
BUSA 360 Operations Management (3)  
CIS 381 Information Systems and Managers (3)  
ECON 302 Managerial Economics (3)

*Three credits from the following (3):*

ECON 315 The Economics of Wages and Employment (3)  
HRM 346 Employee and Labor Relations (3)  
HRM 351 Working Internationally (3)  
HRM 356 Compensation and Benefits Management (3)  
HRM 426 Topics in Human Resource Management (3)

HRM 301 Human Resource Management (3)

HRM 311 Organizational Behavior (3)

HRM 312/LEAD 312 Leading Organizational Change (3)

*Six credits from the following (6):*

300- level or 400-level ACCT, BUSA, ECON, HRM, IBI,  
LEAD, or MRKT courses  
Selected CIS courses – see list above\*

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**Leadership Concentration (21 credits)** is available for students who are particularly interested in developing the skills to lead and influence others.

BUSA 356 Decision-Making Tools in Management (3)

*Three credits from the following (3):*

COMM 301 Persuasion: Theory and Practice (3)  
COMM 333 Business and Organizational Communication (3)  
COMM 353 Crisis Communication and Media Relations (3)  
HRM 311 Organizational Behavior (3)

LEAD 310 Leadership Theory and Development (3)

LEAD 312/HRM 312 Leading Organizational Change (3)

LEAD 320 Issues and Challenges in Leadership (3)

*Six credits from the following (6):*

300- level or 400-level ACCT, BUSA, ECON, HRM, IBI,  
LEAD, or MRKT courses  
Selected CIS courses – see list above\*

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**Technology and Operations Management Concentration (21 credits)** is available for students who have an interest in technology and operations' increasing impact on the globalization of the world.

BUSA 358 Making a Better World? (3)

BUSA 360 Operations Management (3)

*Nine credits from the following (9):*

CIS 181 Programming I (3)  
CIS 191 Web Development I: Client Side (3)  
CIS 251 Hardware and Software (3)  
CIS 283 Business Systems Applications (3)  
CIS 284 Programming II (3)  
CIS 291 Web Development II: Server Side (3)

CIS 343 Introduction to E-Commerce (3)

CIS 381 Information Systems and Managers (3)

CIS 401 Webmasters and Servers (3)

CIS 411 Systems Analysis and Design Concepts (3)

CIS 412 Systems Analysis and Design Applications (3)

CIS 415 Data Communications and Networking (3)

CIS 490 Topics in Computer Information Science (3)

*Six credits from the following (6):*

300- level or 400-level ACCT, BUSA, ECON, HRM, IBI,  
LEAD, or MRKT courses

Selected CIS courses – see list above\* (Courses taken as part of the requirements above do **not** meet this requirement).

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**Economics Major**

This major fosters an appreciation of the importance of personal economic life as well as an understanding of the U.S. economic system and the global context within which it operates. The B.S. in Economics is intended for the student who wants to major in economics but also receive a broad background in business. The B.A. in Economics is designed for the student who wants to focus on economics, but do so within a liberal arts curriculum. Both majors offer broad preparation for any career choice while also providing a solid foundation for graduate studies in economics, law or business.

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**Economics (B.S.) (61–62 credits)**

ACCT 141 Financial Accounting (3)

ACCT 242 Managerial Accounting (3)

CIS 190 Strategic Use of Information Technology (3)

BUSA 102 Opportunities in Business (1)

BUSA 120 Principles of Management (3)

BUSA 350 Financial Management (3)

BUSA 356 Decision-Making Tools in Management (3)

BUSA 381 Business Law I: The Legal Foundation for Business (3)

BUSA 459 Strategic Management (3)

ECON 120 Introduction to Economics – Macro Economics (3)

ECON 220 Principles of Microeconomics (3)

ECON 301 Intermediate Macroeconomics (3)

ECON 302 Managerial Economics (3)

ECON 303 Comparative Political Economy (3)

STAT 281 Applied Statistics for Management (3)

*Twelve credits from the following (12):*

ECON 117 Issues in Environmental Economics (3)

ECON 307 Money and Financial Markets (3)

ECON 312 Economic Development (3)

ECON 315 The Economics of Wages and Employment (3)

IBUS 375 International Business and World Economy (3)

MRKT 230 Marketing Principles (3)

*Three to four credits from the following (3-4):*

MATH 108 Intuitive Calculus with Applications (3)

MATH 111 Calculus I (4)

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**Economics (B.A.) (39–40 credits)**

ACCT 141 Financial Accounting (3)

CIS 190 Strategic Use of Information Technology (3)

ECON 120 Introduction to Economics – Macro Economics (3)

ECON 220 Principles of Microeconomics (3)

ECON 301 Intermediate Macroeconomics (3)

ECON 302 Managerial Economics (3)

ECON 303 Comparative Political Economy (3)

Twelve credits from the following (12):

- ECON 117 Issues in Environmental Economics (3)
- ECON 307 Money and Financial Markets (3)
- ECON 312 Economic Development (3)
- ECON 315 The Economics of Wages and Employment (3)
- IBUS 375 International Business and World Economy (3)

Three credits from the following (3-4):

- MATH 108 Intuitive Calculus with Applications (3)
- MATH 111 Calculus I (4)

Three credits from the following (3):

- STAT 269 Introductory Statistics (3)
- STAT 281 Applied Statistics for Management (3)
- STAT 291 Statistics for Mathematical Sciences I (3)

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## Economic Development Major

This major is for students who want to make a difference in the world through a discipline with an applied focus. Economic Development is a field within the discipline of economics that focuses on bringing economic growth and a higher quality of life at both the community level as well as the macro society level. Students with a major in Economic Development will have the analytical and quantitative tools and foundation necessary for careers in microfinance, impact investing, project management, program planning and budgeting, business development, or policy creation.

### Economic Development (B.A.) (57–60 credits)

- ACCT 141 Financial Accounting (3)
- ACCT 242 Managerial Accounting (3)
- BUSA 120 Principles of Management (3)
- BUSA 371 Microfinance (3)
- BUSA 380 Small Business Development (3)
- ECON 117 Issues in Environmental Economics (3)
- ECON 120 Introduction to Economics – Macro Economics (3)
- ECON 220 Principles of Microeconomics (3)
- ECON 260/IDCC 260 Cross Cultural: Perspectives on Development\*
- ECON 301 Intermediate Economics (3)
- ECON 302 Managerial Economics (3)
- ECON 312 Economic Development (3)

One of the following (3):

- ECON 303 Comparative Political Economy (3)
- IBI 331 Comparative Economic Systems (3)

2<sup>nd</sup> Field Experience in Urban Development or Developing Country (0-3)

One of the following (3):

- IBUS 375 International Business and World Economy (3)
- IBUS 390 International Trade and Finance (3)

One of the following (3):

- BIOL 216 Environmental Issues and Sustainable Solutions (3)
- SOAN 212 Cultural Anthropology (3)

One of the following (3):

- MATH 107 Math for Management (3)
- MATH 108 Intuitive Calculus with Applications (3)

MRKT 230 Marketing Principles (3)

One of the following (3):

- STAT 281 Applied Statistics for Management (3)
- STAT 269 Introductory Statistics (3)

\*Requires an additional fee.

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## International Business Major

This major is designed to prepare students to work in the global marketplace. Integrating both vocation and ministry, the major provides a wealth of opportunities that combine business and missions. In addition to on-campus courses, students in this major attend the International Business Institute, a ten-week study/travel program in Europe and Russia. This summer program is complemented by a required experience in a developing country.

### International Business (B.S.) (73–74 credits)

- ACCT 141 Financial Accounting (3)
- ACCT 242 Managerial Accounting (3)
- BUSA 102 Opportunities in Business (1)
- BUSA 120 Principles of Management (3)
- BUSA 350 Financial Management (3)
- BUSA 381 Business Law I: The Legal Foundation for Business (3)
- BUSA 459 Strategic Management (3)

Three credits from the following (3):

- BUSA 356 Decision-Making Tools in Management (3)
- BUSA 360 Operations Management (3)
- CIS 381 Information Systems and Managers (3)
- ECON 302 Managerial Economics (3)
- CIS 190 Strategic Use of Information Technology (3)
- ECON 120 Introduction to Economics – Macro Economics (3)
- ECON 220 Principles of Microeconomics (3)
- ECON 312 Economic Development (3)
- IBI 331 Comparative Economic Systems (3)
- IBI 339 Global Marketing (3)
- IBI 350 International Trade and Finance (3)
- IBI 390 Global Business Strategy (3)
- IBUS 377 Ministry in International Business (3)

Three or four credits from the following (3-4):

- MATH 107 Applied Mathematics for Management (3)
- MATH 108 Intuitive Calculus with Applications (3)
- MATH 111 Calculus I (4)
- MRKT 230 Marketing Principles (3)
- POLI 212 International Politics (3)
- STAT 281 Applied Statistics for Management (3)
- 12 credits of a foreign language (12) [must be completed in the same language]

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## Marketing Major

A major in marketing prepares students for careers in management that are directly related to the process of facilitating the flow of goods and services from producers to consumers. This major takes an interdisciplinary approach to training students for a variety of career possibilities including marketing management, marketing research, advertising, customer service, public relations, merchandising, retailing, and sales—customizing the major based on a student's particular interests. Students are encouraged to pursue careers in private industry, non-profit organizations, and the public sector.

### Marketing (B.S.) (58–59 credits)

- ACCT 141 Financial Accounting (3)
- ACCT 242 Managerial Accounting (3)
- CIS 190 Strategic Use of Information Technology (3)
- BUSA 102 Opportunities in Business (1)
- BUSA 120 Principles of Management (3)
- BUSA 350 Financial Management (3)
- BUSA 356 Decision-Making Tools in Management (3)

BUSA 381 Business Law I: The Legal Foundation for Business (3)  
BUSA 459 Strategic Management (3)  
ECON 120 Introduction to Economics – Macro Economics (3)  
ECON 220 Principles of Microeconomics (3)

*Three or four credits from the following (3-4):*

MATH 107 Applied Mathematics for Management (3)  
MATH 108 Intuitive Calculus with Applications (3)  
MATH 111 Calculus I (4)

MRKT 230 Marketing Principles (3)  
MRKT 333 Consumer Behavior (3)  
MRKT 337 Advertising (3)  
MRKT 339 Market Research (3)  
MRKT 438 Marketing Management and Strategy (3)  
STAT 281 Applied Statistics for Management (3)

*Six credits from the following (6):*

ART 182 Color and Design (3)  
ART 211 Computer Art (3)  
ART 236 Graphic Design and Visual Culture (3)  
ART 237 Typography and Visual Communications (3)  
ART 251 Photography (3)  
ART 312 Digital Prints: Concepts and Structures (3)  
ART 336 Design for New Media (3)  
ART 337 Graphic Design and Professional Practice (3)  
ART 338 Digital Illustration: Editorial and Narrative (3)  
ART 347 Publication Portfolio: Design as Service (3)  
ART 352 Digital Photography (3)  
ART 411 Advanced Computer Art (3)  
BUSA 305 Writing for Business (3)  
CIS 191 Web Development I: Client Side  
CIS 192 Web Development II: Server Side  
COMM 205 Public Relations (3)  
COMM 211 Media in Everyday Life (3)  
COMM 218 Mass Media and Society (3)  
COMM 225 Digital Editing (3)  
COMM 241 Small Group Communication (3)  
COMM 247 Writing for Mass Media (3)  
COMM 301 Persuasion: Theory and Practice (3)  
COMM 305 Magazine Writing (3)  
COMM 333 Business and Organizational Communication (3)  
COMM 341 Communication Theory (3)  
COMM 351 Public Relations Writing (3)  
COMM 353 Crisis Communication and Media Relations (3)  
MRKT 357 Personal Selling (3)  
MRKT 360 Topics in Marketing (3)  
MRKT 362 Social Media Marketing (3)  
PSYC 101 Introduction to Psychology (3)  
PSYC 226/SOAN 226 Social Psychology (3)  
PSYC 272/HDFS 272 Introduction to Social Research (3)  
SOAN 101 Introduction to Sociology (3)  
SPMT 314 Sponsorship & Marketing in Sport Management(3)

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## Minors

### Accounting Minor (18 credits)

ACCT 141 Financial Accounting (3)  
ACCT 242 Managerial Accounting (3)  
ACCT 301 Intermediate Accounting I (3)

*Three credits from the following:*

ACCT 247 Basic Income Tax (3)  
ACCT 347 Federal Income Taxes I (3)

Six additional credits Accounting courses (6)\*

\*Certain courses within this range may require additional prerequisites, which would increase the total credits required for the minor.

### Economics Minor (18 credits)

ECON 120 Introduction to Economics – Macro Economics (3)  
ECON 220 Principles of Microeconomics (3)

*Three credits of the following (3):*

ECON 301 Intermediate Macroeconomics\*(3)  
ECON 302 Managerial Economics\* (3)

Nine additional credits of ECON courses, one of which may be IBUS 375 (9)\*

\*Certain courses within this range may require additional prerequisites, which would increase the total credits required for the minor.

### Business Administration Minor (19 credits)

ACCT 141 Financial Accounting (3)  
CIS 190 Strategic Use of Information Technology (3)  
BUSA 102 Opportunities in Business (1)  
BUSA 120 Principles of Management (3)  
ECON 120 Introduction to Economics – Macro Economics (3)  
MRKT 230 Marketing Principles (3)  
Three credit elective from ACCT, BUSA, ECON, HRM, IBUS, LEAD, or MRKT (may not include BUSA 130)\*

\*Certain courses within this range may require additional prerequisites, which would increase the total credits required for the minor.

### Human Resource Management Minor (18 credits)

Provides a curricular component in the effort to prepare students for employee relations, training and development roles in church and society.

BUSA 120 Principles of Management (3)  
HRM 301 Human Resource Management (3)  
HRM 311 Organizational Behavior (3)

*Nine credits from the following (9)\*:*

ECON 315 The Economics of Wages and Employment (3)  
HRM 312/LEAD 312 Leading Organizational Change (3)  
HRM 346 Employee and Labor Relations (3)  
HRM 351 Working Internationally (3)  
HRM 356 Compensation and Benefits Management (3)  
HRM 426 Topics in Human Resource Management (3)  
LEAD 310 Leadership Theory and Development (3)

\*Certain courses within this range may require additional prerequisites, which would increase the total credits required for the minor.

**Leadership Minor (21 credits)** Details in the Interdisciplinary Majors and Minors section

### Marketing Minor (19 credits)

BUSA 102 Opportunities in Business (1)  
ECON 120 Introduction to Macro Economics (3)  
MRKT 230 Marketing Principles (3)  
MRKT 333 Consumer Behavior (3)  
MRKT 337 Advertising (3)  
MRKT 339 Market Research (3)  
STAT 281 Applied Statistics for Management\* (3)

\*This course requires prerequisite(s), which may increase the total credits required for the minor.

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# PSYCHOLOGY

**Department Chair:** John I. Bechtold  
**Administrative Assistant:** Donna Zack  
**Professors:** J. Bechtold, R. Jacobsen  
**Associate Professors:** H. Danso, C. Jantzi  
**Assistant Professor:** V. Lemmon, J. Thomson

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## Majors and Minors

The Department of Psychology offers the following majors:

- Biopsychology (B.S.) (see Interdisciplinary Majors and Minors)
- Biopsychology (B.S.)/MSOT in Occupational Therapy – Thomas Jefferson University (see Interdisciplinary Majors and Minors)
- Psychology (B.A.) with optional concentration in Clinical Psychology (B.S.)

The Department of Psychology offers the following minors:

- Community Psychology
- Pre-counseling and Therapy (Details in Interdisciplinary section)
- Psychology

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## Psychology

Each of the degrees in Psychology help students develop a more sophisticated understanding of the person. Psychology students will examine such mental phenomena as consciousness, perception, learning, memory, intelligence, interpersonal relations, motivation, and development in childhood, adolescence, and adulthood.

Students who want more flexibility in their degree may choose to pursue a B.A. degree. Students who wish to earn a degree that is more directly related to science may choose to pursue a B.S. degree. Students who may wish to become counselors or seek an entry-level position in counseling-related field may choose to pursue the B.A. with a counseling concentration. Some graduate schools prefer applicants who have a B.S. degree while other schools do not have a preference between the B.A. or the B.S. Students are encouraged to talk with their advisor at Messiah so that he or she can help them make the best decision about which degree to choose.

The Department of Psychology offers both clinically oriented courses such as personality, counseling theories, psychological testing, and counseling techniques, and experimentally oriented courses such as biological basis of behavior, sensation and perception, cognition, and social psychology. In addition, courses in statistics, methods of social research, and experimental psychology provide students with the experiences and knowledge necessary to either continue their study in graduate school or seek employment immediately following graduation.

Psychology Majors can choose from a variety of minors such as Bible, business, communication, early childhood education, Christian ministries, or community psychology, gerontology, human development and family science, sociology, criminal justice, or anthropology. Students in our majors are encouraged to spend a semester studying abroad and/or participate in a practicum or internship off campus. Opportunities are available for professionally supervised participation in community mental health centers, retirement facilities, hospitals, prisons, crisis intervention centers, drug and alcohol rehabilitation facilities, and other service agencies in the area.

### Psychology (B.A.) (47 credits)

- PSYC 099 Writing for Psychology (1)
- PSYC 101 Introduction to Psychology (3)
- PSYC 209/HDFS 209 Life Span Development (3)
- PSYC 271 Statistical Methods in Psychology (3)
- PSYC 226/SOAN 226 Social Psychology (3)
- PSYC 272/HDFS 272 Introduction to Social Research (3)

*Three credits from the following (3):*

- PSYC 204 Cognition (3)
- PSYC 350 Biological Basis of Behavior (3)

*Three credits from the following (3):*

- PSYC 319 Abnormal Psychology (3)
- PSYC 323 Counseling Theories (3)
- PSYC 324 Personality (3)

*Three credits from the following (3):*

- PSYC 408 Experimental Psychology (3)
- PSYC 409 Psychological Testing (3)
- PSYC 441 History and Systems of Psychology (3)
- PSYC 494 Psychology Seminar (3)
- BIOL 258 Human Biology (4)
- Twelve credits from PSYC Electives (12)

### Psychology with Clinical Concentration (B.A.) (47 credits)

- BIOL 258 Human Biology (4)
- PSYC 099 Writing for Psychology (1)
- PSYC 101 Introduction to Psychology (3)
- PSYC 209/HDFS 209 Life Span Development (3)
- PSYC 271 Statistical Methods in Psychology (3)
- PSYC 226/SOAN 226 Social Psychology (3)
- PSYC 272/HDFS 272 Introduction to Social Research (3)

*Three credits from the following (3):*

- PSYC 204 Cognition (3)
- PSYC 350 Biological Basis of Behavior (3)

*Three credits from the following (3):*

- PSYC 408 Experimental Psychology (3)
- PSYC 409 Psychological Testing (3)
- PSYC 441 History and Systems of Psychology (3)
- PSYC 494 Psychology Seminar (3)
- Three credits of PSYC Electives (3)

### Clinical Concentration (12 credits)

- PSYC 241 Group Dynamics (3)
- PSYC 319 Abnormal Psychology (3)
- PSYC 323 Counseling Skills (3)
- PSYC 423 Counseling Techniques (3)

### Psychology (B.S.) (47 credits)

- BIOL 258 Human Biology (4)
- PSYC 099 Writing for Psychology (1)
- PSYC 101 Introduction to Psychology (3)
- PSYC 204 Cognition (3)
- PSYC 209/HDFS 209 Life Span Development (3)
- PSYC 226/SOAN 226 Social Psychology (3)
- PSYC 271 Statistical Methods in Psychology (3)
- PSYC 272/HDFS 272 Introduction to Social Research (3)

*Three credits from the following (3):*

- PSYC 319 Abnormal Psychology (3)
- PSYC 323 Counseling Theories (3)
- PSYC 324 Personality (3)
- PSYC 350 Biological Basis of Behavior (3)
- PSYC 351 Sensation and Perception (3)
- PSYC 408 Experimental Psychology (3)
- PSYC 441 History and Systems of Psychology (3)

PSYC 494 Psychology Seminar (3)  
PSYC xxx Psychology Electives (6)

### **Community Psychology Minor (21 credits)**

*Three credits from the following (3):*

PSYC 101 Introduction to Psychology (3)  
SOAN 101 Introduction to Sociology (3)

*Three credits from the following (3):*

PSYC 272/HDFS 272 Introduction to Social Research (3)\*\*  
SOAN 271 Research Methods (3)

PSYC 226/SOAN 226 Social Psychology (3)

PSYC 242 Community Psychology (3)

PSYC/SOAN 391 Practicum\* (3)

SOWK 420 Social Welfare Policy and Social Change (3)

*Three credits from the following (3)\*\*:*

CRIJ 389 World Justice Systems (3)  
HDFS 253 Community Services for Individual and Family (3)  
PSYC 319 Abnormal Psychology (3)  
PSYC 323 Counseling Theories (3)  
PSYC 365 Drug and Alcohol Addiction (3)

\*The practicum must be approved by the Department of Psychology.

\*\*Courses may require prerequisite(s), which may increase the total credits required for the minor.

### **Psychology Minor (18 credits)**

PSYC 101 Introduction to Psychology (3)

*Three credits from the following (3):*

PSYC 204 Cognition (3)  
PSYC 226/SOAN 226 Social Psychology (3)  
PSYC 350 Biological Basis of Behavior\* (3)  
PSYC 351 Sensation and Perception\* (3)

*Three credits from the following (3):*

PSYC 209/HDFS 209 Life Span Development (3)  
PSYC 310/HDFS 310 Child Development (3)  
PSYC 311/HDFS 311 Adolescent Development (3)  
PSYC 312/HDFS 312 Adult Development (3)

Nine credits of PSYC electives\* (9)

\*Courses may require prerequisite(s), which may increase the total credits required for the minor.

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## **SOCIAL WORK**

**Department Chair/Associate Professor:** Charles R. Seitz, Jr.

**Associate Professor (Clinical Track)/**

**Field Placement Coordinator:** Michelle D. George

**Administrative Assistant:** Donna Zack

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### **Majors and Minors**

The Department of Social Work offers the Social Work (B.S.W.) major and the Human Services minor.

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### **Social Work Program**

The goal of the social work program is to integrate knowledge, values, and skills for competent generalist social work practice and/or admission to graduate school. The social work program provides a professional foundation through field placement and required volunteer experiences. Social work graduates are prepared to work effectively with individuals, families, groups, organizations and communities in a variety of public and private settings.

The social work program at Messiah College is accredited by the Council on Social Work Education (CSWE) and graduates are

eligible to apply for advanced standing in many graduate schools of social work in the United States, thereby reducing the number of credits required for the Master's in Social Work degree. Social work graduates are eligible for licensing or certification in states which license bachelor's level social workers.

### **Social Work (B.S.W.) (69 credits)**

BIOL 258 Human Biology (4)

HIST 142 U.S. History Survey Since 1865 (3)

PSYC 101 Introduction to Psychology (3)

SOAN 212 Cultural Anthropology (3)

SOWK 120 Introduction to Social Work (3)

SOWK 221 Human Behavior in the Social Environment (3)

SOWK 250 Social Work Practice with Individuals (3)

SOWK 251 Field Experience: Social Work Practice: Individuals (1)

SOWK 360 Social Work Practice: Families (3)

SOWK 361 Field Experience: Social Work Practice: Families (1)

SOWK 356 Engaging Diversity and Inequality (3)

SOWK 372 Social Work Practice with Groups (4)

SOWK 382 Topics in Social Work (3)

SOWK 385 Introduction to Research in Social Work (3)

SOWK 420 Social Welfare Policy and Social Change (3)

SOWK 475 Social Work Practice with Communities and Organizations (3)

SOWK 476 Field Experience: Social Work Practice with Communities and Organizations (1)

SOWK 484 Preparation for Field Practice (1)

SOWK 485 Seminar in Social Work Practice (3)

SOWK 490 Field Practice in Social Work (12)

STAT 269 Introductory Statistics (3)

*Three credits from the following (3):*

ECON 110 Economics of Social Issues (3)

ECON 117 Issues in Environmental Economics (3)

ECON 120 Introduction to Economics – Macro Economics (3)

**Note:** Semester in Harrisburg or abroad is advised, but not required.

### **Human Services Minor (18 credits)**

SOWK 120 Introduction to Social Work (3)

SOWK 221 Human Behavior in Social Environment (3)

SOWK 356 Engaging Diversity and Inequality (3)

SOWK 420 Social Welfare Policy and Social Change (3)

*Three credits from the following (Context Cluster) (3):*

SOAN 335 Social Justice, Conflict and Peacemaking (3)

CRIJ 362 Criminology (3)

CRIJ 367 Victimology (3)

HDFS 142 Introduction to Interpersonal Relations (3)

PSYC 241 Group Dynamics (3)

PSYC 323 Counseling Theories\* (3)

*Three credits from the following (Experiential Cluster):*

HDFS, PSYC, CRIJ or SOAN practicum (3)

\*This course requires prerequisite(s), which may increase the total credits required for the minor.

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# SOCIOLOGY, ANTHROPOLOGY, AND CRIMINAL JUSTICE

**Department Chair:** Kelly A. Cheeseman  
**Administrative Assistant:** Donna Zack  
**Professor:** J. Paris  
**Associate Professor:** K. Cheeseman  
**Assistant Professor:** E. Polson, K. Whiteley

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## Majors and Minors

The Department of Sociology, Anthropology and Criminal Justice offers the following majors:

- Criminal Justice (B.A.)
- Sociology and Anthropology (B.A.)
- Ethnic and Area Studies (B.A.) (see Interdisciplinary section)  
*with concentrations in:*
  - African American Studies
  - Asian Studies
  - U.S. Ethnic Studies
- Sustainability Studies (B.A.) (see Interdisciplinary Majors and Minors) *with a concentration in* Community and Urban Development

The Department of Sociology, Anthropology, and Criminal Justice offers the following minors:

- Criminal Justice
- Gender Studies (see Interdisciplinary Majors and Minors)
- Sociology and Anthropology
- Urban Studies (see Interdisciplinary Majors and Minors)

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## Sociology and Anthropology

Messiah's Sociology and Anthropology (SOAN) program is at the forefront of comparable Christian college programs. It exceeds the traditional "sociology only" model by including anthropology and criminal justice, offering students more broad, global, and real-world opportunities. Our program fulfills the American Sociological Association's recommendations for undergraduate education.

The SOAN major and minor attract "people people." SOAN students improve life for others, promote social justice, and cross cultural boundaries in service of humanity. They are adaptive, lifelong learners who thrive in a fast-changing world.

SOAN promotes both a scholarly and real-world approach to the social sciences. SOAN seniors write a thesis based on original research, and earn ethics certification from the National Institutes of Health. Students gain real-world experience through study abroad, internships, and service-learning. The SOAN major is efficient and flexible, designed for double majors, minors, and studying abroad.

A recent alumni survey shows SOAN graduates working in the for-profit sector (31%), non-profit and ministry (12%), law (13%), education (12%), and human services (22%). Many develop successful careers with a B.A., before working toward a master's or doctorate.

### Sociology and Anthropology (B.A.) (36 credits)

- SOAN 101 Introduction to Sociology (3)
- SOAN 212 Cultural Anthropology (3)
- SOAN 271 Quantitative Research Methods and Statistics (3)

- SOAN 281 Qualitative Research Methods (3)
- SOAN 331 Sociocultural Theory (3)
- SOAN 335 Social Conflict, Justice and Peacemaking (3)
- SOAN 356 Social Inequality (3)
- SOAN 442 Senior Thesis (3)

*Twelve (12) credits from the following:*

- CRIJ 389 World Justice Systems (3)
- ENGL 230 Linguistics (3)
- PSYC 365 Drug and Alcohol Addiction (3)
- SOAN 315 Urban Sociology (3)
- SOAN 221 Native American Cultures (3)
- SOAN 226/PSYC 226 Social Psychology (3)
- SOAN 232/GERO 232 Sociology of Aging (3)
- SOAN 305 Harrisburg Neighborhoods (3)
- SOAN 334 Population and Environmental Issues (3)
- SOAN 335 Social Conflict, Justice and Peacemaking (3)
- SOAN 341 Religion and Society (3)
- SOAN 342/HDFS 342/PSYC 342 Women and Men in American Society (3)
- SOAN 381 Topics in Non-Western Cultures (3)
- SOAN 382 Topics in Sociology and Anthropology (3)
- SOAN 384/HDFS 384 Families in America (3)
- SOAN 391 Sociology and Anthropology Practicum (1-3)
- SOAN 491 Independent Study (1-3)
- SOAN 497/498 Major Honors (3,3)
- SOWK 420 Social Welfare Policy and Social Change (3)

**Note:** At least 18 credits used to meet requirements must be 300- or 400- level courses.

### Sociology and Anthropology Minor (18 credits)

- SOAN 101 Introduction to Sociology (3)
- SOAN 212 Cultural Anthropology (3)
- SOAN 331 Sociocultural Theory (3)

*Three credits from the following (3):*

- SOAN 271 Quantitative Research Methods and Statistics (3)
- SOAN 281 Qualitative Research Methods (3)

Six additional Sociology or Anthropology credits approved by the minor advisor and taken at Messiah College, Temple University, or an approved study abroad (6).

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## Ethnic and Area Studies, Sustainability, Gender Studies and Urban Studies

The disciplines of sociology and anthropology contribute in significant ways to several interdisciplinary majors and minors including Ethnic and Area Studies, Sustainability, Gender Studies and Urban Studies. These programs are described in detail in the Interdisciplinary Majors and Minors section of the *College Catalog*.

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## Criminal Justice Program

The Criminal Justice program prepares students for service and/or graduate study in a diversity of criminal justice and related fields. Through its commitment to professional criminal justice values and ethics, students will prepare for responsible citizenship, understand the interdisciplinary nature of the field, and develop a comprehensive understanding of crime and the criminal justice system. A Christian world view is integrated into the program through an emphasis on a Restorative Justice perspective. The program incorporates a professional orientation with a strong liberal arts foundation and an analytical and conceptual framework.

The criminal justice major prepares students for entry-level positions in the field, including the areas of judicial services, law enforcement, adult and juvenile probation, adult and juvenile



correctional institutions, adult and juvenile parole supervision, victim assistance programs and community-based rehabilitation agencies.

**Criminal Justice (B.A.) (48 credits)**

CRIJ 101 Introduction to Criminal Justice (3)  
CRIJ 201 Introduction to Law Enforcement (3)  
CRIJ 259 Criminal Law and Court Procedures (3)  
CRIJ 309 Juvenile Delinquency (3)  
CRIJ 366 Corrections: Incarceration, Probation, Parole (3)  
CRIJ 375 Criminal Justice Theories (3)  
CRIJ 389 World Justice Systems (3)  
CRIJ 444 Evidence, Search and Seizure (3)  
CRIJ 452 Criminal Justice Seminar (3)  
INTE 391 Internship (3)  
*Three credits from the following (3):*  
PSYC 101 Introduction to Psychology (3)  
SOAN 101 Introduction to Sociology (3)  
SOAN 212 Cultural Anthropology (3)  
SOAN 271 Quantitative Research Methods and Statistics (3)  
SOAN 281 Qualitative Research Methods (3)  
*Choose three of the following (9):*  
CRIJ 382 Topics in Criminal Justice (3)  
PSYC 271 Statistical Methods in Psychology (3)  
PSYC 365 Drug and Alcohol Addiction (3)  
BIBL 291 War, Peace and Justice in the Bible (3)  
SOAN 335 Conflict, Justice and Peacemaking (3)  
SOAN 356 Social Inequality (3)  
SOWK 420 Social Welfare Policy and Social Change (3)

**Criminal Justice Minor (18 credits)**

CRIJ 101 Introduction to Criminal Justice (3)  
CRIJ 201 Introduction to Law Enforcement (3)  
CRIJ 375 Criminal Justice Theories (3)  
*Choose nine credits from the following (9):*  
CRIJ 259 Criminal Law and Court Procedures (3)  
CRIJ 309 Juvenile Delinquency (3)  
CRIJ 366 Corrections: Incarceration, Probation, Parole (3)  
CRIJ 382 Topics in Criminal Justice (3)  
CRIJ 389 World Justice Systems (3)  
CRIJ 444 Evidence, Search and Seizure (3)

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## TEACHER EDUCATION PROGRAM

**Director:** Jennifer L. Fisler  
**Interim Field Experience Coordinator:** Kathleen A. Eshbach  
**Field Placement, Internship and Certification Coordinator:** Amanda J. Sigel  
**Administrative Assistant:** Carol Wickey

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The Messiah College Teacher Education Program sponsors Pennsylvania Level I teacher certification in numerous content areas. For complete requirements of all secondary and K-12 teacher certification programs, please refer to the department in which that major is offered. The mission and themes of all certification programs are uniform and the policies and procedures which govern the Teacher Education Program are the same for all certification areas.

The Department of Education offers the following majors that lead to a B.S. degree and Pennsylvania Instructional I teacher certification:

Education with Teaching Certification in Grades PreK-4 (B.S.)  
Education with Dual Teaching Certification in Grades PreK-4 and Special Education Pre-K-8 (B.S.)  
Education with Teaching Certification in Grades 4-8 (B.S.)

Messiah College offers teacher education programs leading to PA Instructional I Certification in the following areas. For detailed program requirements, see the sponsoring academic department (indicated in parenthesis) for each.

**7-12 Programs:**

Biology  
Chemistry  
English  
Mathematics (Information and Mathematical Sciences)  
Physics (Information and Mathematical Sciences)  
Social Studies (History)

**K-12 Programs:**

Environmental Education (in combination with Biology)  
TESOL (Education)  
Family and Consumer Sciences Education (Human Development and Family Science)  
French (Modern Languages)  
German (Modern Languages)  
Health and Physical Education (Health and Human Performance)  
Music  
Art (Visual Arts)  
Spanish (Modern Languages)

**Mission Statement and Program Outcomes.** The mission of the Messiah College Teacher Education Program is to develop professional educators who . . .

- **facilitate** the learning and development of others consistently,
- **reflect on thoughts and actions deliberately,**
- **apply essential knowledge effectively,**
- **learn continuously,**
- **care for people compassionately,** and
- **serve God** and society faithfully.

Students who complete the Messiah College Teacher Education Program will demonstrate:

1. Christian faith and values in personal and professional life.
2. Professional attitudes that reflect an understanding of schools and a commitment to teaching.
3. Subject matter depth and an understanding of the relationships between and among curricular areas.
4. Theoretical knowledge of learning and related instructional practices that support learning.
5. Empirical inquiry skills such as observation, hypothesis-testing, data collection, and data analysis.
6. Acquisition, analysis, evaluation, and integration of new knowledge throughout professional practice.
7. Appropriate professional responses to the roles and responsibilities of individuals and organizations (e.g., teachers, students, families, school districts, communities) associated with educational environments.
8. Professional communication (speaking, writing, listening) and technology skills.

9. Reflective decision-making and problem-solving skills.
10. Instructional planning and assessment skills that facilitate equitable participation, an accepting and supportive learning environment, and maximum development for all learners.

To support our mission and to meet professional development standards, the following themes are integrated throughout all of the teacher preparation programs:

1. **Assessment:** Collecting valid and reliable data to inform evaluation and decision-making processes.
2. **Technology and Information Literacy:** Applying a wide variety of instructional technologies and information resources to enhance instructional decision-making and effectiveness.
3. **Inclusion:** Creating and maintaining educational environments that promote learning opportunities for individuals who possess a variety of exceptionalities and disabilities.
4. **Multiculturalism:** Creating and maintaining educational environments that promote learning opportunities for individuals who represent a variety of racial, ethnic, and cultural backgrounds.
5. **The Christian Teacher:** Demonstrating Christian faith and values in all of the actions, judgments, and interpersonal relationships that are relevant to educational environments.

**Field Experiences and Student Teaching.** The location of Messiah College affords great opportunity for students to observe and teach in a wide variety of school settings. Within easy drive of the College are numerous suburban, rural, and urban school districts. The Teacher Education Program regularly places students in as many as 30 different school districts each year and enjoys positive, collaborative relationships with these districts.

**Students are responsible for their own transportation to and from field experience and student teaching sites.** No College transportation will be available to students who are enrolled in field-based courses or student teaching. In early courses, the College attempts to place students in schools with carpooling possibilities in mind. For upper level field experiences and student teaching, students are expected to have their own means of transportation.

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## Policies and Procedures

All students who pursue teacher certification must comply with established policies and procedures that regulate admission to, retention in, and certification through the Messiah College Teacher Education Program. A complete copy of the Teacher Education Program Handbook can be found on the program homepage: <http://www.messiah.edu/teacher/>.

The Teacher Education Program Handbook is the official and most current guide to any program-related information. The following points are highlights of the major handbook-documented guidelines and, while viewed as the most significant items to be considered, they represent only a segment of the complete policies and procedures that govern a student's acceptance into and movement through the Teacher Education Program.

**It is the student's responsibility to be fully aware of, and to comply with, all policies, procedures, and expectations required for admission to, retention in, and exit from the Teacher Education Program. Furthermore, students are responsible for following all policies and procedures related to the process of applying for the Pennsylvania Instructional I teaching certificate.**

**Enrollment in Field Experiences.** Students seeking to enroll in field experience courses will need to complete security clearances and a TB test. The three required clearances are the PA Act 34 (criminal check), the PA ACT 33/151 (child abuse check), and a clearance from the FBI. In order to enroll in TEP 210, students must complete these clearances early in the spring of their first year. Clearances must be submitted to the Teacher Education Program Office prior to registration for this course. All of these clearances have fees which are the responsibility of the student applicant. Detailed information on the clearances, including links to forms, is available on the Teacher Education Program website ([www.messiah.edu/teacher](http://www.messiah.edu/teacher)).

**Admission to the Teacher Education Program.** All eligible students who intend to pursue a teacher preparation program are required to make formal application for admission to the Teacher Education Program by **spring of the sophomore year**. Transfer students should contact the Director of the Teacher Education Program to determine when they should apply. Admissions decisions are made as complete applications are received.

Admission requirements are established by the Teacher Education Committee in compliance with regulations from the Commonwealth of PA and the Messiah College Teacher Education Program. Messiah College reserves the right to deny admission to any applicant determined to be unqualified for participation in the Teacher Education Program. Three major criteria are evaluated for admission to the Teacher Education Program:

**GPA/Academic Performance.** Minimum GPA of 3.0 is required for admission. Additionally, students must earn at least a "C-" in the first year seminar (or equivalent course), and COMM 105, Fundamentals of Oral Communication (3) (or equivalent course) two college level math courses, and one English literature course. Any course required for the major leading to teacher certification or for the teacher certification program in which students earn a grade lower than "C-" must be repeated.

**PAPA Examination Scores.** At the time of application, students must submit scores from the Pre-service Academic Performance Assessment (PAPA) Exam administered by Pearson Education, Inc. For admission, scores must meet the passing level established by the Pennsylvania Department of Education <http://www.pa.nesinc.com/Home.aspx>

**Character/Security Clearances.** To comply with regulations established by public school districts and the Commonwealth of Pennsylvania, all applicants to the Teacher Education Program must secure periodic clearances through PA Act 34 (criminal check), PA Act 33/151 (child abuse check), and a clearance from the FBI. **All of these clearances have application fees which are the responsibility of the student applicant. All clearances must be less than one year old at the time of application to the program.**

Applicants are also screened by the College's Student Life and Academic Offices to ascertain that individuals are considered to be in good standing with each office and are in compliance with campus guidelines for personal behavior and academic integrity.

Students are advised to consult the Teacher Education Program Handbook for more detailed information and/ or contact the Director of the Teacher Education Program with specific questions about admission to the Teacher Education Program.

### **Retention in the Teacher Education Program**

Once admitted, students are considered members in good standing in the Teacher Education Program as long as all of the qualifications and performance standards required for admission to the program are maintained. Students who do not maintain all of the required qualifications and standards will be suspended from the program. Benefits of being admitted and retained in the program include, but are not limited to the following:

- **Qualification for Continued Study.** Students who have been admitted to the Teacher Education Program are eligible for advanced level education courses and field experiences. Students must have approved status to enroll in any 300-level EDUC course or any 300-level field-based certification course, regardless of the prefix of the course.
- **Notification of Teacher Education Program Meetings and Events.** Students who are admitted to the Teacher Education Program will automatically receive information about special meetings, informational sessions, application requirements for the Professional Semester, etc. Because much of this information is conveyed by means of email, students are required to access their campus email accounts regularly.

### **Admission to the Professional Semester**

Students apply for admission to the Professional Semester (student teaching semester) during the junior year. All students are expected to file a formal application for admission to the Professional Semester by November 1 of the academic year prior to the one in which the Professional Semester will occur. To be considered for admission, students must:

- be admitted to the Teacher Education Program (normally occurs during the sophomore year).
- continue to maintain all academic and character standards as stated in the Teacher Education Program handbook and which were required for admission to the Teacher Education Program.
- successfully complete (grade of C- or higher or faculty endorsement, as noted) of the following prerequisite courses:
  - a. TEP 210 Sophomore Field Experience (0)
  - b. EDUC 201 Education and American Society (3)
  - c. EDUC 203/PSYC 203 Educational Psychology (3) (Secondary, K-12 and 4-8 only)
  - d. Upper Level Field Experiences (300/400 level field experiences required for teacher certification) as reported by course instructor or college supervisor.
- be required and endorsed for enrollment in the Professional Semester by their academic departments (i.e., the departments in which the academic majors are housed).

Acceptance in the Professional Semester may be revoked if at any time students do not maintain the minimum acceptable level of performance for all admission criteria, including performance in all Professional Semester courses.

### **Appeals Process**

A student may appeal decisions regarding his/her status for Program admission or Professional Semester admission as determined by the Teacher Education Program. Any appeal should be articulated in writing to the Chair of the Teacher Education Committee, clearly stating the nature for the appeal and supporting rationale for consideration of the requested change. Appeals will be processed through the Teacher Education Committee. Decisions regarding the appeals will be relayed to the student verbally and in writing. The

decision of the Teacher Education Committee regarding the appeal is final.

### **Institutional Recommendation for Pennsylvania Teacher Certification (Program Exit Requirements)**

Students are eligible to be recommended for Pennsylvania Level I Teacher Certification after they have successfully completed all requirements for a Messiah College degree, demonstrated appropriate proficiency in the Professional Semester/student teaching experience, met all required health and character clearances, scored at or above the required level on the mandatory PA test(s), and have been endorsed for certification by the required offices of the College. Specific details for certification requirements and related processes are outlined in the Teacher Education Program Handbook. Students are expected to read and follow these posted guidelines and procedures. The Teacher Certification Officer will alert students to the timing and procedures for all testing and documentation required for the certification process. However, it is the student's responsibility to meet all requirements and deadlines to ensure that the process is executed successfully. Students who are not United States citizens are urged to consult with the Certification Officer regarding their eligibility for Pennsylvania teacher certification and related procedures and policies.

### **Post-Baccalaureate Teacher Certification Programs**

Opportunities to obtain teacher certification only, without completing a Messiah College degree, are available for those who already possess at least the bachelor's degree from an accredited college or university. Such students must first apply for admission to the College (contact the Certification Office for details) and then, if admitted, an individualized certification program will be developed by the Teacher Certification Officer and the Chair of the Department which houses the major content area in which certification will occur. Admission to the College does not guarantee that the student will be admitted to the Teacher Education Program. Post-Baccalaureate Certification students must follow the same policies, procedures, application, and retention expectations as all other students. Once admitted to the College, such students must be continuously enrolled in Messiah College courses. For more detailed information, consult the certification website: <http://www.messiah.edu/teacher/certification>.

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# School of the Humanities

**Dean:** Peter K. Powers, Ph.D.  
**Administrative Assistant:** Joanna Hadley-Evans  
**Professor:** S. Caroselli  
**Senior Lecturer:** K. Quimby

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## Identity and Mission Statement

The School of the Humanities is an interdisciplinary intellectual community which analyzes and interprets the creation and transmission of human culture, both ancient and modern. We emphasize critical and creative thinking, communication skills, and the development of Christian perspectives as we engage the pressing aesthetic, philosophical, political, religious, and social issues of our day. Our mission is to educate students and the larger College community by cultivating an informed Christian faith, a maturing cultural literacy, and portable intellectual skills. We develop lifetime learners who demonstrate global awareness, civic engagement, servant leadership, and reconciliation in church and society.

The School of the Humanities consists of seven academic departments, the Writing Center, the Beatrice Howe Language Center, and the Center for Public Humanities. Twenty-two majors and 46 minors/concentrations advance a wide range of educational aspirations among our humanities students. The Center for Public Humanities enriches the School, the College, and the wider regional community by bringing faculty and students together with other educational, cultural, and civic organizations (e.g., schools, libraries, museums, regional societies and state councils, colleges and universities) to pursue collaborative ventures in humanities-based teaching, learning, and public events.

The School of the Humanities includes the following departments:

- Department of Biblical and Religious Studies
- Department of Communication
- Department of English
- Department of History
- Department of Modern Languages
- Department of Philosophy
- Department of Politics and International Relations

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## BIBLICAL and RELIGIOUS STUDIES

**Department Chair:** Brian A. Smith  
**Administrative Assistant:** Shirley Groff  
**Professors:** M. Cosby, D. Jacobsen, J. McDermond,  
G. Pickens, E. Powery, E. Seibert,  
D. Weaver-Zercher  
**Associate Professors:** S. Baker, R. Crane, S. Gallaher,  
B. Smith  
**Assistant Professors:** M. Ramey, S. Skinner

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## Mission

The Department of Biblical and Religious Studies is a community of students and Christian scholars who specialize in biblical studies, religious history, theology, world religions, and Christian ministry. Our goal is to model and encourage informed thinking about Christian faith and practice and the role of religion in the world. We foster spiritual and theological reflection that enables

individuals to develop and deepen Christian commitment, interpret matters of faith intelligently, and minister to others with wisdom and compassion.

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## Majors and Minors

The Department of Biblical and Religious Studies offers the following majors:

Biblical and Religious Studies (B.A.) *with concentrations in:*

Bible  
Religion  
Theology  
World Christianity

Christian Ministries (B.A.) *with concentrations in:*

Congregational Ministries  
Cross-Cultural Ministries  
Youth Ministries

The Department of Biblical and Religious Studies offers the following minors:

African-American Religion and Culture  
Bible  
Congregational Ministries  
Cross-Cultural Ministries  
Religion  
Theology  
World Christianity  
Youth Ministries

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## Biblical and Religious Studies Major

The Biblical and Religious Studies major equips students to interpret biblical texts responsibly and to reflect on religious beliefs and practices. By acquiring tools for biblical interpretation, theological reflection, and religious understanding, students gain insight into their own faith as well as resources for becoming leaders, servants, and reconcilers in church and society. Students choose a concentration in one of four areas: Bible, Religion, Theology, or World Christianity. With its emphasis on the development of reading, writing, and critical-thinking skills, the major prepares students for entry-level positions in a variety of fields, as well as seminary or graduate school. In addition to serving students who pursue this major as their primary field, the Biblical and Religious Studies major serves as an excellent double major for students in other departments who wish to be responsible members of church and society.

The **Bible concentration** focuses on the biblical text, examining the Bible's contents and backgrounds while introducing students to various methods of interpretation. Students in this concentration are encouraged to take Greek and/or Hebrew to meet their General Education language requirement.

The **Religion concentration** examines a variety of world religions and the ways scholars study them.

The **Theology concentration** emphasizes careful reflection on Christian belief and practice, examining the commonalities and differences that have been evident within the life of the church past and present.

The **World Christianity concentration** introduces students to the dynamics of Christianity as a global faith. Representative forms of Christianity as it exists in the world and Christianity as a missionary

religion for the world will be analyzed. Students choosing this concentration are encouraged to spend a semester in a cross-cultural setting.

#### **Biblical and Religious Studies (B.A.) – Core (24 credits)**

BIBL 202 Encountering the Bible (Majors) (3)  
BIBL 233 Old Testament Literature (Majors) (3)  
BIBL 237 New Testament Literature (Majors) (3)  
RELI 206 Religions of the World (Majors) (3)  
RELI 344 History of Christianity (3)  
THEO 205 Introduction to Christian Theology (3)  
THEO 305 Christian Theology of Religious Pluralism (3)  
THEO 487 Biblical and Religious Studies Seminar (3)

*One of the following concentrations:*

#### **Bible Concentration (15 credits)**

One BIBL course in the 250-293 range (3)

BIBL 307 Biblical Backgrounds (3)

*Three credits from the following:*

BIBL 312 Selected Old Testament Books (3)

BIBL 313 Selected New Testament Books (3)

BIBL 381 Biblical Interpretation and Criticism (3)

BIBL 382 Topics in Biblical Theology (3)

#### **Religion Concentration (15 credits)**

*Six credits from the following (6):*

RELI 228 Judaism (3)

RELI 229 Islam (3)

RELI 333 Religions of India (3)

RELI 334 Religions of China and Japan (3)

*Three credits from the following (3):*

RELI 321 Christianity in Latin America (3)

RELI 329 Christianity in Africa (3)

RELI 332 Christianity in Asia (3)

*Three credits from the following (3):*

RELI 342 Religious Pluralism in America (3)

RELI 355 Christianity in North America (3)

SOAN 341 Religion and Society (3)

RELI 366 Topics in Religion (3)

#### **Theology Concentration (15 credits)**

*Three credits from the following (3):*

RELI 321 Christianity in Latin America (3)

RELI 329 Christianity in Africa (3)

RELI 332 Christianity in Asia (3)

THEO 340 Modern Theology (3)

THEO 345 Contemporary Theology (3)

THEO 354 Theology and Gender (3)

THEO 366 Topics in Theology (3)

#### **World Christianity Concentration (15 credits)**

CHRM 220 Introduction to Christian Mission (3)

RELI 321 Christianity in Latin America (3)

RELI 329 Christianity in Africa (3)

RELI 332 Christianity in Asia (3)

RELI 366 Topics in Religion (3)

## **Christian Ministries Major**

The major in Christian Ministries primarily prepares women and men for entry-level positions in congregational and para-church ministries. This program can also serve as a foundation for further education in a seminary setting. With its three concentrations, the major incorporates practical elements, but it also requires the student to acquire competency in biblical and theological reflection, which serve as the theoretical foundations for this course of study. Critical thinking and oral and written communication skills are also stressed.

The **Congregational Ministries concentration** provides the student with a broad course of study focusing on the diverse aspects of congregation-based work.

The **Cross-Cultural Ministries concentration** provides the student with skills and perspectives for intercultural service opportunities and partnerships with congregations world-wide and para-church mission organizations.

The **Youth Ministries concentration** provides the student with general orientation to ministry as well as focused study in the area of youth work.

In addition to meeting the major's curricular requirements, all Christian Ministries majors are required to participate in the Department's Fitness for Ministry program-cocurricular activities and expectations that assess and increase students' fitness to pursue careers in Christian ministry. Program requirements include mandatory participation in spiritual formation groups during the sophomore and senior years, and the development and maintenance of a ministry portfolio that will be reviewed regularly by department faculty members. For more information on the Fitness for Ministry program, visit the Department website.

#### **Christian Ministries (B.A.) – Core (34 credits)**

BIBL 202 Encountering the Bible (Majors) (3)

BIBL 233 Old Testament Literature for Majors (3)

BIBL 237 New Testament Literature for Majors (3)

*Three credits from the following (3):*

BIBL 312 Selected Old Testament Books (3)

BIBL 313 Selected New Testament Books (3)

BIBL 382 Topics in Biblical Theology (3)

CHRM 099 Opportunities in Christian Ministries (1)

CHRM 242 Christian Spirituality (3)

CHRM 338 Teaching for Christian Ministries (3)

CHRM 493 Christian Ministries Seminar (3)

RELI 344 History of Christianity (3)

THEO 238 Christian Theology I: God and Humanity (3)

THEO 239 Christian Theology II: The Nature and Mission of the Church (3)

THEO 338 Christian Theology III: Peace, Justice, and Reconciliation (3)

*One of the following concentrations:*

#### **Congregational Ministries Concentration (29 credits)**

CHRM 210 Theology of Ministry (3)

CHRM 225 Field Experience in Christian Ministries (2)

CHRM 243 Evangelism and Discipleship (3)

CHRM 323 Worship (3)

CHRM 330 Organization and Leadership for Ministry (3)

CHRM 342 Pastoral Counseling (3)

CHRM 343 Introduction to Preaching (3)  
CHRM 351 Topics in Congregational Ministries (3)  
CHRM 391 Practicum (3)  
RELI 355 Christianity in North America (3)

**Cross-Cultural Ministries Concentration (29 credits)**

CHRM 220 Introduction to Christian Mission (3)  
CHRM 227 Pre-Field Experience Cross-Cultural Ministry (3)  
CHRM 320 Biblical Theology of Mission (3)  
CHRM 352 Topics in Cross-Cultural Ministries (3)  
CHRM 393 Post-Field Experience Cross-Cultural Ministry (2)  
COMM 342 Intercultural Communication (3)

*Three credits from the following (3):*

RELI 206 Religions of the World for Majors (3)  
RELI 228 Judaism (3)  
RELI 229 Islam (3)  
RELI 333 Religions of India (3)  
RELI 334 Religions of China and Japan (3)

*Three credits from the following (3):*

RELI 321 Christianity in Latin America (3)  
RELI 329 Christianity in Africa (3)  
RELI 332 Christianity in Asia (3)  
THEO 223 Global Christian Theology (3)

SOAN 212 Cultural Anthropology (3)  
THEO 305 Christian Theology of Religious Pluralism (3)

**Youth Ministries Concentration (32 credits)**

CHRM 210 Theology of Ministry (3)  
CHRM 225 Field Experience in Christian Ministries (2)  
CHRM 235 Ministry with Youth I (3)  
CHRM 330 Organization and Leadership for Ministry (3)  
CHRM 336 Ministry with Youth II (3)  
CHRM 353 Topics in Youth Ministries (3)  
CHRM 391 Practicum (3)  
PSYC 311/HDFS 311 Adolescent Development (3)  
RELI 355 Christianity in North America (3)

*Three credits from the following (3):*

CHRM 243 Evangelism and Discipleship (3)  
CHRM 323 Worship (3)  
CHRM 342 Pastoral Counseling (3)  
CHRM 343 Introduction to Preaching (3)

*Three credits from the following (3):*

EDUC 203/PSYC 203 Educational Psychology (3)  
HDFS 101 Foundations of Marriage and Family (3)  
PSYC 101 Introduction to Psychology (3)

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**Minors**

**African-American Religion and Culture Minor (18 credits)**

ENGL 340 American Literature After 1900 (3)  
HIST 352 African-American History since 1865 (3)  
THEO 207 African-American\* (3)  
THEO 487 Biblical and Religious Studies Seminar (3)  
Six hours of approved electives. Possible courses include:  
RELI 329 Christianity in Africa (3)  
EDUC 346 Socio-Cultural Perspectives on Education (3)  
Approved Temple University course on African-American culture (3)

\*This course requires prerequisite(s), which may increase the total credits required for the minor.

**Bible Minor (21 credits)**

*Three credits from the following (3):*

BIBL 201 Encountering the Bible (3)  
BIBL 202 Encountering the Bible for Majors (3)  
BIBL 203 Encountering the Old Testament (3)  
BIBL 204 Encountering the New Testament (3)

*Three credits from the following (3):*

BIBL 231 Old Testament Literature (3)  
BIBL 233 Old Testament Literature for Majors (3)

*Three credits from the following (3):*

BIBL 235 New Testament Literature (3)  
BIBL 237 New Testament Literature for Majors (3)

*Three credits from the following (3):*

BIBL 312 Selected Old Testament Books (3)  
BIBL 313 Selected New Testament Books (3)

*Three credits from the following (3):*

BIBL 307 Biblical Backgrounds (3)  
BIBL 381 Biblical Interpretation and Criticism (3)  
BIBL 382 Topics in Biblical Theology (3)

Six additional credits of BIBL courses

**Congregational Ministries Minor (18 credits)**

CHRM 210 Theology of Ministry (3)

*Three credits from the following (3):*

BIBL 231 (or 233) Old Testament Literature (3)  
BIBL 235 (or 237) New Testament Literature (3)

THEO 238 Christian Theology I: God and Humanity (3)

THEO 239 Christian Theology II (3)

*Six credits from the following (6):*

CHRM 323 Worship (3)  
CHRM 338 Teaching for Christian Ministries (3)  
CHRM 342 Pastoral Counseling (3)  
CHRM 343 Introduction to Preaching (3)

**Cross-Cultural Ministries Minor (18 credits)**

CHRM 220 Introduction to Christian Mission (3)  
CHRM 320 Biblical Theology of Mission (3)  
CHRM 352 Topics in Cross-Cultural Ministries (3)

*Three credits from the following (3):*

RELI 228 Judaism (3)  
RELI 229 Islam (3)  
RELI 333 Religions of India (3)  
RELI 334 Religions of China/Japan (3)

*Three credits from the following (3):*

RELI 321 Christianity in Latin America (3)  
RELI 329 Christianity in Africa (3)  
RELI 332 Christianity in Asia (3)

SOAN 212 Cultural Anthropology (3)

**Religion Minor (18 credits)**

RELI 205 or 206 Religions of the World (3)

*Three credits from the following (3):*

RELI 228 Judaism (3)  
RELI 229 Islam (3)

*Three credits from the following (3):*

RELI 333 Religions of India (3)  
RELI 334 Religions of China and Japan (3)

*Three credits from the following (3):*

RELI 342 Religious Pluralism in America (3)  
RELI 355 Christianity in North America (3)

RELI 366 Topics in Religion (3)

THEO 305 Christian Theology of Religious Pluralism (3)

### Theology Minor (18 credits)

RELI 344 History of Christianity (3)  
THEO 205 Introduction to Christian Theology (3)  
THEO 305 Christian Theology of Religious Pluralism (3)  
THEO 340 Modern Theology (3)  
THEO 345 Contemporary Theology (3)  
THEO 354 Theology and Gender (3)

### World Christianity Minor (18 credits)

CHRM 220 Introduction to Christian Mission (3)  
RELI 321 Christianity in Latin America (3)  
RELI 329 Christianity in Africa (3)  
RELI 332 Christianity in Asia (3)  
RELI 344 History of Christianity (3)  
THEO 223 Global Christian Theology (3)

### Youth Ministries Minor (21 credits)

*Three credits from the following (3):*  
BIBL 231 (or 233) Old Testament Literature (3)  
BIBL 235 (or 237) New Testament Literature (3)  
CHRM 210 Theology of Ministry (3)  
THEO 238 Christian Theology I: God and Humanity (3)  
THEO 239 Christian Theology II: Nature and Mission of the Church (3)  
CHRM 235 Ministry with Youth I (3)  
CHRM 336 Ministry with Youth II (3)  
CHRM 353 Topics in Youth Ministries (3)

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## COMMUNICATION

**Department Chair:** Nancy D. McCown  
**Administrative Assistant:** Christine Walter  
**Professor:** E. Arke, K. Phipps  
**Associate Professors:** N. McCown, K. Simcox  
**Assistant Professors:** F. Cilento, M. Holloway, N. Skulstad

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### Majors and Minors

The Department of Communication offers the following majors:

Broadcasting (B.A.) *with concentrations in:*  
Broadcast Production  
Media Studies  
Communication (B.A.)  
Digital Media (B.A.) *Concentration: Digital Video and Story*  
(See the Interdisciplinary section for details)  
Film and Media Arts (B.A.)  
Journalism (B.A.)  
Public Relations (B.A.)

The Department of Communication offers the following minors:

Broadcasting  
Communication  
Journalism

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### Majors

The Department of Communication offers majors in Broadcasting, Communication, Digital Media, Film and Media Arts, Journalism and Public Relations. It also offers minors in Broadcasting, Communication, and Journalism. Career possibilities for graduates include work in the film and media industries, public relations, public speaking, human services, advertising, journalism, broadcasting, advertising, event planning, human resource management, politics, law and any career which relies significantly

on interpersonal, group, media, or organizational skills. Students must complete at least 18 credits of upper-division coursework.

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### Broadcasting (B.A.)\* (46 credits)

COMM 105 Fundamentals of Oral Communication (3)  
COMM 107 Introduction to Communication Seminar (1)  
COMM 218 Mass Media and Society (3)  
*Three credits from the following (3):*  
COMM 211 Media in Everyday Life (3)  
COMM 282 Topics in Media Studies (3)  
COMM 382 History and Theory of Digital Media (3)  
COMM 247 Writing for Mass Media (3)  
COMM 325 Audio/Visual Newsgathering (3)  
COMM 341 Communication Theory (3)  
COMM 493 Communication Senior Seminar (3)

*Six credits from the following (6):*

Internship  
Practicum at Messiah College Media Lab or in journalism or broadcasting

A minor is required (18). No more than six credits may overlap between the major and minor.

*One of the following concentrations:*

#### Broadcast Production Concentration (18 credits)

*Three credits from the following (3):*

COMM 223 Introduction to Radio (3)  
COMM 319 Sports Broadcasting (3)

*Fifteen credits from Temple University Courses,\* BTMM 1000-4000, approved by Messiah's Department of Communication.*

#### Media Studies Concentration (18 credits)

COMM 217 Introduction to Film (3)  
*Fifteen credits from Temple University Courses,\* BTMM 1000-4000, approved by Messiah's Department of Communication*

\*Currently, the major requires coursework at the Messiah College Philadelphia Campus, which will no longer be an option after 2013-2014. The curricular requirements will be updated; contact your academic advisor for more information.

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### Communication (B.A.) (44-46 credits)

COMM 105 Fundamentals of Oral Communication (3)  
COMM 107 Introduction to Communication Seminar (1)  
*Three credits from the following media courses (3):*  
COMM 211 Media in Everyday Life (3)  
COMM 218 Mass Media and Society (3)  
COMM 282 Topics in Media Studies (3)  
COMM 382 History and Theory of Digital Media (3)

*Three credits from the following interpersonal communication courses (3):*

COMM 241 Small Group Communication (3)  
COMM 313 Relational Communication (3)  
COMM 342 Intercultural Communication (3)  
COMM 354 Interpersonal Conflict (3)

*Three credits from the following major writing courses (3):*

COMM 112 Newswriting (3)  
COMM 247 Writing for Mass Media (3)  
COMM 254 Screenwriting I (3)  
COMM 305 Magazine Writing (3)  
COMM 351 Public Relations Writing (3)

COMM 341 Communication Theory (3)  
COMM 359 Rhetorical Theory (3)  
COMM 391 Communication Practicum or  
INTE 391 Internship (1-3)

COMM 493 Communication Senior Seminar (3)  
21 additional COMM credits (no overlap with other required courses),  
which may also include:  
BUSA 305 Writing for Business (3)  
HDFS 272/PSYC 272 Introduction to Social Research (3)

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### Film and Media Arts Major

To be admitted to the Film and Media Arts major, students must have a minimum 2.5 GPA and grade of at least a B- in COMM 217. Exceptions may be granted at the discretion of the Department.

#### Film and Media Arts (B.A.) (55-61 credits)

COMM 105 Fundamentals of Oral Communication (3)  
COMM 107 Introduction to Communication Seminar (1)  
COMM 217 Introduction to Film (3)

Three credits from the following media courses (3):

COMM 211 Media in Everyday Life (3)  
COMM 218 Mass Media and Society (3)  
COMM 282 Topics in Media Studies (3)  
COMM 382 History and Theory of Digital Media (3)

Three credits from the following interpersonal communication courses (3):

COMM 241 Small Group Communication (3)  
COMM 313 Relational Communication (3)  
COMM 342 Intercultural Communication (3)  
COMM 354 Interpersonal Conflict (3)

COMM 225 Digital Editing (3)  
COMM 226 16mm Filmmaking (3)  
COMM 251 Film History I: 1895-1960 (3)  
COMM 252 Film History II: 1960-Present (3)  
COMM 254 Screenwriting I (3)  
COMM 328 Methods and Issues in Film Studies (3)  
COMM 341 Communication Theory (3)  
COMM 493 Communication Senior Seminar (3)  
Internship (6-8)\*\*

Twelve to sixteen credits from the following (12-16):

COMM 227 Persuasive Film Production (3)  
COMM 255 Screenwriting II (3)  
COMM 326 Digital Production (3)  
1000-4000 level FMA\* production courses from Temple University (3-4)

\* Currently, the major requires coursework at the Messiah College Philadelphia Campus, which will no longer be an option after 2013-2014. The curricular requirements will be updated; contact your academic advisor for more information.

\*\*Internship requirements may be fulfilled at sites approved by the Department Chair. Contact your advisor for more information.

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### Public Relations (B.A.) (44-47 credits)

COMM 105 Fundamentals of Oral Communication (3)  
COMM 107 Introduction to Communication Seminar (1)  
COMM 205 Principles of Public Relations (3)

Three credits from the following media courses (3):

COMM 211 Media in Everyday Life (3)  
COMM 218 Mass Media and Society (3)  
COMM 282 Topics in Media Studies (3)  
COMM 382 History and Theory of Digital Media (3)

Three credits from the following interpersonal communication courses (3):

COMM 241 Small Group Communication (3)  
COMM 313 Relational Communication (3)  
COMM 342 Intercultural Communication (3)  
COMM 354 Interpersonal Conflict (3)

Three credits from the following major writing courses (3):

BUSA 305 Writing for Business (3)  
COMM 112 Newswriting (3)  
COMM 247 Writing for Mass Media (3)  
COMM 254 Screenwriting I (3)  
COMM 305 Magazine Writing (3)  
COMM 301 Persuasion: Theory and Practice (3)  
COMM 333 Business and Organization Communication (3)  
COMM 341 Communication Theory (3)  
COMM 351 Public Relations Writing (3)  
COMM 353 Crisis Communication and Media Relations (3)  
COMM 359 Rhetorical Theory (3)  
COMM 391 Communication Practicum or  
INTE 391 Internship (1-3)  
COMM 493 Communication Senior Seminar (3)  
MRKT 230 Marketing Principles (3)  
MRKT 337 Advertising (3)

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### Journalism (B.A.)\* (57-66 credits)

COMM 107 Introduction to Communication Seminar (1)  
COMM 112 Newswriting (3)  
COMM 218 Mass Media and Society (3)

Three credits from the following (3):

COMM 341 Communication Theory (3)  
COMM 359 Rhetorical Theory (3)  
COMM 325 Audio/Video Newsgathering (3)  
COMM 425 Multimedia Storytelling (3)  
COMM 493 Communication Senior Seminar (3)

A minor (18-21 credits) is required. No more than six credits may overlap between the major and the minor.

12 JOURN credits taken at Temple University\*:

JOURN 1114 Design for Journalists (3)

Nine credits from one of the following areas of specialization at Temple University:

Arts and Music Journalism	Broadcast Specialization
Magazine Journalism	News Editing
Public Affairs Journalism	Sports Journalism
Visual Journalism	
News Management/Entrepreneurship	

INTE 394 Internship (external) (4-6)

COMM 392 or 492 Messiah Media Lab (on-campus media participation/ leadership) (4-8)

\*Currently, the major requires coursework at the Messiah College Philadelphia Campus, which will no longer be an option after 2013-2014. The curricular requirements will be updated; contact your academic advisor for more information.

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### Broadcasting Minor (18 credits)

COMM 218 Mass Media and Society (3)

Three credits from the following:

COMM 211 Media in Everyday Life (3)  
COMM 282 Topics in Media Studies (3)  
COMM 325 Audio/Visual Newsgathering (3)  
COMM 341 Communication Theory (3)

At least six credits selected from the following (6):

COMM 223 Introduction to Radio (3)  
COMM 247 Writing for Mass Media (3)  
COMM 391 Communication Practicum (1-3)\*  
INTE 391 Internship (1-3)\* or INTE 394 Internship (4-9)\*

\*No more than 3 total credits from INTE 391, INTE 394 and COMM 391 may be applied to the minor.



### Communication Minor (18 credits)

COMM 341 Communication Theory

*Three credits from the following (3):*

COMM 211 Media in Everyday Life (3)

COMM 218 Mass Media and Society (3)

COMM 282 Topics in Media Studies (3)

*Three credits from the following interpersonal communication courses (3):*

COMM 241 Small Group Communication (3)

COMM 313 Relational Communication (3)

COMM 342 Intercultural Communication (3)

COMM 354 Interpersonal Conflict (3)

Nine elective credits - COMM 200 level or above (9)\*

\*No more than 3 total credits from COMM 391 may be applied to the minor.

### Journalism Minor (18 credits)

COMM 112 Newswriting (3)

COMM 218 Mass Media and Society (3)

COMM 325 Audio/Video Newsgathering (3)

*Three credits from the following (3):*

COMM 341 Communication Theory (3)

COMM 359 Rhetorical Theory (3)

COMM 392 Messiah Media Lab (1-3 credits per semester for a total of 3 credits)

COMM 425 Multimedia Storytelling (3)

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## ENGLISH

**Department Chair:** Matthew Roth

**Administrative Assistant:** Shirley Groff

**Professors:** C. Downing, P. Powers, S. Smith, H. Walker

**Associate Professors:** J. Corey, D. Dzaka, L. Lake, M. Roth

**Assistant Professors:** J. McFarlane-Harris

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The Department of English offers the following majors:

English (B.A.) *with concentrations in:*

Literature

Writing

English with Secondary Teaching Certification (B.A.)

The Department of English offers minors in Creative Writing and English.

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### English Major

The English program at Messiah College assists students in studying a wide array of literatures using a variety of critical thinking and writing skills to help them become perceptive readers, insightful thinkers, and responsible writers. Professors encourage students to develop perspectives on the relationship of Christian faith to all aspects of literary endeavor.

Because many careers call for close analysis and interpretation of texts as well as fluency in writing, the English major prepares students for success in a variety of fields. Besides the obvious career choices of advanced scholarship, teaching, journalism, and publishing, Messiah English majors have pursued law, business, Christian ministry, public relations, and other professional careers.

### English (B.A.) (36 credits)

ENGL 201 Introduction to English Studies I (3)

ENGL 202 Introduction to English Studies II (3)

ENGL 494/ENGL 496 Senior Seminar (3)

*One of the following concentrations:*

**Literature Concentration (27 credits).** Nine electives, which meet the following requirements:

Two British literature courses, one before 1800, one after (genre/theory overlap possible)

Two American literature courses, one before 1900, one after (genre/theory overlap possible)

One Postcolonial/World literature course (genre/theory overlap possible)

Two Genre courses (one must be literature)

One Writing course (genre overlap possible)

One Critical Theory course (literature/genre overlap possible)

### Writing Concentration (27 credits)

Nine ENGL electives, which meet the following requirements:

One British literature course

One American literature course

One Postcolonial World literature course

One Critical Theory course (writing or literature)

ENGL 203 Introduction to Creative Writing (prerequisite for workshop courses)

Four writing courses

**Note:** Three of these nine electives must include a genre focus (e.g. poetry, drama, fiction, memoir), only one of which can be a literature course.

**Note:** While students can only earn three credits per course, they may meet more than one area requirement in a single course. Any course meeting more than one requirement must be approved in advance by the Department of English.

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### English with Secondary Teaching Certification (B.A.) (73-76 credits)

ENGL 201 Introduction to English Studies I (3)

ENGL 202 Introduction to English Studies II (3)

ENGL 230 Linguistics (3)

ENGL 370 Composition Theory and Pedagogy (counts as both writing and critical theory) (3)

ENGL 350 Postcolonial/World Literature (3)

ENGL 360 Genre: Young Adult Literature (3)

ENGL 494 Senior Seminar (literature focus)

Four to five electives (12-15 credits), meeting the following requirements (genre overlap possible):

Two British literature courses, one before 1800, one after

Two American literature courses, one before 1900, one after

One Genre course (other than Young Adult Literature)

EDSP 207 Introduction to Special Education (3)

EDSP 307 Inclusion Practices (3)

EDUC 201 Education and American Society (3)

EDUC 203/PSYC 203 Educational Psychology (3)

EDUC 308 Instruction and Assessment with English Language Learners (3)

EDUC 331 Instructional Design and Assessment for Middle and Secondary Grades (3)

MATH/CIS/STAT XXX fulfilling General Education (6)

TEP 210 Sophomore Field Experience (0)

TEP 310 Junior Field Experience (0)

TEP 410 Secondary Pre-Student Teaching Experience (0)

### **Professional Semester:**

EDUC 420 Professional Issues in Education (2)  
ENGL 407 Secondary English Curriculum and Instruction (3)  
PSYC 311/HDFS 311 Adolescent Development (3)  
TEP 435 Student Teaching: Secondary (8)

**Note:** While students can only earn three credits per course, they may meet more than one area requirement in a single course. Any course meeting more than one requirement must be approved in advance by the Department of English.

### **Creative Writing Minor (18 credits)**

ENGL 203 Introduction to Creative Writing (3)  
ENGL 305 Creative Writing Workshops (9) (e.g. Poetry, Drama, Fiction, Literary Nonfiction, Memoir)  
ENGL 300-level Literature courses (3)  
ENGL 496 Writing Seminar (3)

### **English Minor (18 credits)**

Fifteen (15) credits must be 200-level or above  
Three credits of British Literature (3)  
Three credits of American Literature (3)  
Three credits of literature before 1900 (3)  
Nine credits of ENGL electives (9)  
**Note:** Fifteen credits must be 200-level or above

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## **HISTORY**

**Department Chair:** John Fea  
**Administrative Assistant:** Christine Walter  
**Professors:** J. Fea, J. Huffman, J. LaGrand,  
B. Michael, N. Wilson  
**Associate Professors:** D. Pettegrew, A. Stoner-Eby

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The Department of History offers the following majors:

History (B.A.) *with concentrations in:*

American History  
Classical and Medieval European History  
Modern European History  
Public History  
World History

History with Secondary Social Studies Teaching Certification (B.A.)

The Department of History offers the following minors:

Classical, Medieval, and Renaissance Studies  
History

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The Department of History provides a wide range of course offerings in American, European, and World History. In addition, the Department faculty place a strong emphasis on the cultivation of specific skills and career-related abilities such as critical thinking, high quality written and oral communication, and methods of research.

At Messiah College the academic study of history is also grounded in the Christian liberal arts tradition, and as such it promotes life-long learning and historical reflection on today's society and culture.

In addition to course offerings, the Department offers many enrichment opportunities for majors—including working with professors on research projects; internships with museums, historical archives, and governmental agencies; study semesters

around the world; and teaching in local schools. Students enjoy the benefit of studying in several learning environments, creatively connecting the past to the present.

Graduates from this Department are prepared to enter a variety of professions and occupations from collegiate and secondary level teaching, museums, archives, historic preservation, public history, and journalism to government service, law, business administration and management. The discipline of history develops analytical, communication, and organizational skills that prepare students for a broad range of careers.

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### **History Major**

In addition to intensive examination of a wide range of historical periods and subjects, the history major allows room for students to pursue other studies. For example, some take a second major, and many complete minors in areas from English, foreign languages, economics, and journalism to communication, business, and politics. Students are also required to seek experiential learning, either through study abroad or through an internship experience.

#### **History (B.A.) (40-49 credits)**

HIST 099 Introduction to History (1)

*Three credits from the following (3):*

HIST 101 Western Civilization Before 1500 (3)

HIST 102 Western Civilization Since 1500 (3)

HIST 141 U.S. History Survey to 1865 (3)

HIST 142 U.S. History Survey Since 1865 (3)

*Three credits from the following (3):*

HIST 171 World Civilizations: Bronze Age to 1500 (3)

HIST 172 World Civilizations: 1500 to Present (3)

HIST 258 Historical Methods (3)

One 300-level Classical and Medieval European History course\* (3)

One 300-level Modern European History course\* (3)

One 300-level Non-Western History course\* (3)

One 300-level American History course\* (3)

HIST 401 Historiography and Philosophy of History (3)

Three additional 300-level history courses\* (9)

Experiential Learning Component (0-9) *from one of the following options:*

INTE 391 (1-3), INTE 394 (4-9) or INTE 395 (6-9)

Internship\*\*

Study abroad option\*\*\*(0)

\*HIST 391, HIST 392 and HIST 393 may count as concentration courses but do not count as the "One 300-level American, Modern European, Non-Western, or Classical and Medieval European History course."

\*\*An approved historical internship in the following areas: archives, museums, historical libraries and societies, historical preservation, public history, or any other field in which historical analysis or research is being performed. Approval of the department faculty is required before enrolling in any INTE course. Students with the Public History concentration must complete INTE 394 or 395.

\*\*\*Participation in an approved study abroad program with at least one history course in the semester's curriculum. That history course will count towards either the core requirements or the elective requirements, and therefore will not increase the amount of credits required for the major.

Students may use their three additional 300-level history courses to pursue one of the following history concentrations:

**American History** *Nine credits from the following:*

- HIST 341 Colonial America (3)
- HIST 342 America in the Age of the Revolution (3)
- HIST 344 Civil War America (3)
- HIST 346 From Omaha to Hiroshima: U.S. History, 1890–1945 (3)
- HIST 347 Modern America: U.S. History, 1945–Present (3)
- HIST 351 Native American History (3)
- HIST 352 African-American History Since 1865 (3)
- HIST 353 Immigrant America (3)
- HIST 355 U.S. Urban History (3)
- HIST 362 United States Foreign Policy (3)
- HIST 391 Historical Study of Peace (3)
- HIST 392 Women and Gender in History (3)
- HIST 393 Public History (3)

**Classical and Medieval European History** *Nine credits from the following:*

- HIST 301 Ancient Greece (3)
- HIST 302 Ancient Rome (3)
- HIST 303 Late Antiquity (3)
- HIST 304 Tudor/Stuart England: 1400-1700 (3)
- HIST 305 Archaeology and Historical Interpretation: Greece and Rome (3)
- HIST 310 Medieval Europe (3)
- HIST 319 Topics in Classical–Medieval European History (3)

**Modern European History** *Nine credits from the following:*

- HIST 320 Renaissance and Reformation Europe (3)
- HIST 321 The Age of Monarchy: 17<sup>th</sup>-18<sup>th</sup> Century Europe (3)
- HIST 322 Modern Europe: 1789–1918 (3)
- HIST 323 Europe in the 20<sup>th</sup> Century (3)
- HIST 324 European Imperialism and Its Legacies: 1500 to Present (3)
- HIST 331 Modern Britain (3)
- HIST 332 Modern Germany (3)
- HIST 391 Historical Study of Peace (3)
- HIST 392 Women and Gender in History (3)

**Public History (18 credits)**

*Three credits from the following (3)*

- HIST 305 Archaeology and Historical Interpretation (3)
- HIST 345 Pennsylvania History (3)
- HIST 390 Teaching History and Social Studies (3)

Any 300-level American history course (3)

HIST 393 Public History (3)

HIST 394 Digital History (3)

INTE 394/395 Historical Internship required from Experiential Learning Component (4-9)

*Six credits from the following applied courses (6):*

- ARTH 308 Museum Studies (3)
- ART 236 Graphic Design and Visual Culture (3)
- ART 251 Photography (3)
- BUSA 120 Principles of Management (3)
- CIS 191 Web Development I: Client Side (3)
- COMM 351 Public Relations Writing (3)
- COMM 360 Topics in Communication: Event Planning (3)
- GIS 245 Introduction to Geographic Information Systems (3)

**World History** *Nine credits from the following (9):*

- HIST 371 Premodern Civilizations of Asia (3)
- HIST 372 Modern Civilizations of Asia (3)
- HIST 373 History of India before 1500 (3)
- HIST 374 History of Modern India and Pakistan (3)
- HIST 375 Gandhi's India: 1869–1948 (3)

- HIST 379 History of the Middle East (3)
- HIST 381 History of Africa (3)
- HIST 383 South Africa: Struggle for Freedom (3)
- HIST 391 Historical Study of Peace (3)
- HIST 392 Women and Gender in History (3)

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**History with Secondary Social Studies Teaching Certification (B.A.) (89 Credits)**

History Majors wishing to be certified for social studies teaching on the secondary level (grades 7–12) may do so by admission into the Teacher Education Program. In addition to the history major, students use their elective credits for supporting courses in economics, politics, psychology, geography, and education.

*Three credits from the following (3):*

- HIST 101 Western Civilization Before 1500 (3)
- HIST 102 Western Civilization Since 1500 (3)

HIST 141 U.S. History Survey to 1865 (3)

HIST 142 U.S. History Survey Since 1865 (3)

*Three credits from the following (3):*

- HIST 171 World Civilizations: Bronze Age to 1500 (3)
- HIST 172 World Civilizations: 1500 to Present (3)

HIST 258 Historical Methods (3)

One 300-level Classical and Medieval European History course (3)

One 300-level Modern European History course (3)

One 300-level Non-Western History course (3)

One 300-level American History course (3)

Six credits additional 300- or 400-level History course (6)

HIST 390 Teaching History and Social Studies (3)

HIST 401 Historiography and Philosophy of History (3)

Experiential Learning Component

**Social Studies Teaching Certification Requirements**

ECON 110 Economics of Social Issues (3)

GEOG 103 Regional Geography of the World (3)

POLI 113 American Government (3)

ENGL 122 to ENGL 176 Literature meeting General Education (3)

MATH/CIS/STAT XXX fulfilling General Education (6)

**Education Requirements**

EDSP 207 Introduction to Special Education (3)

EDSP 307 Inclusion Practices (3)

EDUC 201 Education and American Society (3)

EDUC 203/PSYC 203 Educational Psychology (3)

EDUC 308 Instruction and Assessment with English Language Learners (3)

EDUC 331 Instructional Design and Assessment for Middle and Secondary Grades (3)

EDUC 420 Professional Issues in Education (2)

HIST 407 Issues in the History and Social Studies Classroom (1)

PSYC 311/HDFS 311 Adolescent Development (3)

TEP 210 Sophomore Field Experience (0)

TEP 310 Junior Field Experience (0)

TEP 410 Secondary Pre-Student Teaching Experience (0)

TEP 435 Student Teaching: Secondary (8)

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**Classical, Medieval, and Renaissance Studies Minor (18 credits)**

LATN 201 Intermediate Latin (prerequisites LATN 101 & 102) (3)

One 3-credit course in History or Archaeology (3)

One 3-credit course in Literature or Philosophy (3)

One 3-credit course in Art History, Music History, or Theatre History (3)

Six credits from the following list (6):

ARTH 150 Art History I: Ancient through Medieval Art (3)  
ARTH 303 Ancient and Early Christian Art (3)  
ARTH 304 Medieval and Renaissance Art (3)  
ENGL 162 Of Gods and Humans: Literature of the Ancient World (3)  
ENGL 310 British Literature Before 1800: Medieval-Renaissance English Literature (3)  
ENGL 310 British Literature Before 1800: Milton (3)  
ENGL 310 British Literature Before 1800: Shakespeare (3)  
HIST 134 Knights, Peasants, and Bandits: A Social History of Medieval England (3)  
HIST 301 Ancient Greece (3)  
HIST 302 Ancient Rome (3)  
HIST 303 Late Antiquity: AD 250-700 (3)  
HIST 304 Tudor-Stuart England: 1400-1700 (3)  
HIST 305 Archaeology and Historical Interpretation: Greece and Rome (3)  
HIST 310 Medieval Europe: AD 700-1500 (3)  
HIST 319 Topics in Classical – Medieval European History (3)  
HIST 320 Renaissance and Reformation Europe (3)  
LATN 201 Intermediate Latin (3)  
MUMH 303 History of Music I (2)  
PHIL 247 Ancient and Medieval Philosophy (3)  
THEA 340 History of Theatre I: Antiquity to Renaissance (3)

#### History Minor (18 credits)

Three credits from the following (3):

HIST 141 U.S. History Survey to 1865 (3)  
HIST 142 U.S. History Survey Since 1865 (3)  
HIST 258 Historical Methods (3)  
Three credits upper-level American history (3)  
Three credits upper-level European history (3)  
Three credits upper-level Non-Western history (3)  
Three credits 300-level HIST electives (3)

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## MODERN LANGUAGES

**Department chair:** John A. Beaney  
**Administrative Assistant:** Deborah Chopka  
**Professor:** J. Beaney  
**Associate Professors:** L. Beck, G. Robalino, S. Rodriguez, K. Yúnez  
**Assistant Professor:** L. Ye  
**Senior Lecturer:** A. Ginck

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### Majors and Minors

The Department of Modern Languages offers the following majors:

Chinese Business (B.A.)  
Chinese Studies (B.A.)  
French (B.A.)  
French with K-12 Teaching Certification (B.A.)  
German (B.A.)  
German with K-12 Teaching Certification (B.A.)  
Spanish (B.A.)  
Spanish Business (B.A.)  
Spanish with K-12 Teaching Certification (B.A.)

The Department of Modern Languages offers the following minors:

Chinese Studies      French  
German                Spanish

#### Special Programs

Philipps-Universität–Marburg, Deutschland  
Pontificia Universidad Catolica de Valparaiso, Chile  
Universidad de Barcelona, España  
Université Catholique de Paris, France  
Cours de Civilisation Française de la Sorbonne, Paris, France

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### Modern Languages

Students who major in Chinese Studies, French, German or Spanish learn to communicate effectively with speakers of these languages, gain an understanding of how they perceive the world and critically reflect on their own culture. To this end, all language majors study the language itself and examine historical and contemporary cultures and acquire knowledge about the literary heritage of the respective cultures through the study of individual authors or periods of particular significance.

The Chinese Business major combines a core business curriculum with the study of Chinese language throughout the entire program. Special attention is given to the development of cultural understanding with direct experience in China. Detailed requirements for the Chinese Business major are listed in the interdisciplinary majors section of the catalog.

The Spanish Business major offers a core business curriculum with study of Spanish language throughout the entire program. Special attention is given to the development of cultural understanding with direct experience in Latin America. Detailed requirements for the Spanish Business major are listed in the interdisciplinary majors section of the catalog.

Career possibilities include government, business, missions, translating and interpreting, teaching and international placements in business or service.

All modern language majors fulfill some of their required courses in study abroad programs offered through Brethren Colleges Abroad or ISA. The Chinese Studies major requires one semester of study in China. The French major requires study at the Université Catholique de Paris, or the Cours de Civilisation Française de la Sorbonne, Paris, France. The German major requires study at Philipps-Universität–Marburg, Germany. The Spanish major requires study at the Universidad de Barcelona or the Pontificia Universidad Catolica de Valparaiso.

The study of language is required for students in all majors. The General Education Language/Cultures requirement can be met by the completion of three semesters of one modern language or by completing two semesters of one language in addition to a cross-cultural study tour (see General Education Requirements).

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### Chinese Business Major

The Chinese Business major is sponsored by the Department of Modern Languages and the Department of Management and Business. It combines a core business curriculum with the study of Chinese language throughout the entire program. Special attention is given to the development of cultural understanding with direct experience in China.

#### Chinese Business (B.A.) (70-71 credits)

ACCT 141 Financial Accounting (3)  
CHIN 101 Fundamentals of Chinese I (3)

CHIN 102 Fundamentals of Chinese II (3)  
 CHIN 201 Intermediate Chinese I (3)  
 CHIN 206 Intermediate Chinese II (3)  
 CHIN 301 Advanced Chinese (3)  
 CHIN 320 Special Topics in Chinese (3)  
 CIS 190 Strategic Use of Information Technology (3)  
 BUSA 102 Opportunities in Business (1)  
 BUSA 120 Principles of Management (3)  
 ECON 120 Introduction to Economics – Macro Economics (3)  
 ECON 220 Principles of Microeconomics (3)  
 ECON 312 Economic Development (3)  
 HIST 372 Modern Civilizations of Asia (3)  
 IBUS 375 International Business and World Economy (3)  
 IBUS 377 Ministry in International Business (3)  
 LANG 493 Modern Languages Seminar (3)

*Three to four credits from the following (3-4):*

MATH 107 Applied Math for Management (3)  
 MATH 108 Intuitive Calculus with Applications (3)  
 MATH 111 Calculus I (4)

MRKT 230 Marketing Principles (3)  
 STAT 281 Applied Statistics for Management (3)

*Twelve credits abroad in China, from the following, approved by the Department of Modern Language (12):*

Chinese language (6)  
 Business or economics (6)

Students are strongly encouraged to take three additional hours of language or business courses while abroad.

## Chinese Studies Major

The Chinese Studies major offers a variety of courses in the study of Chinese language and culture. Introductory and intermediate level courses focus on grammar, conversation, reading, writing and culture. Advanced level courses include continued acquisition of Chinese language skills and extensive cultural content.

### Chinese Studies (B.A.) (45 credits)

CHIN 101 Fundamentals of Chinese I (3)  
 CHIN 102 Fundamentals of Chinese II (3)  
 CHIN 201 Intermediate Chinese I (3)  
 CHIN 206 Intermediate Chinese II (3)  
 CHIN 301 Advanced Chinese (3)  
 CHIN 320 Special Topics in Chinese (3)  
 LANG 493 Modern Languages Seminar (3)

*Nine credits from the following (9):*

CHIN 391 Independent Study (1-3)  
 HIST 371 Premodern Civilizations of Asia (3)  
 HIST 372 Modern Civilizations of Asia (3)  
 CHIN 260/IDCC 260 China Cross-Cultural (3)  
 PHIL 318 Asian Philosophy (3)  
 RELI 334 Religions of China and Japan (3)

Fifteen (15) credits of approved Chinese courses during the semester in China. Students may select among courses in grammar, literature, history, culture, philosophy, or political science.

### Chinese Studies Minor (21 credits beyond CHIN 102)

#### Option I

CHIN 201 Intermediate Chinese I (3)  
 CHIN 206 Intermediate Chinese II (3)  
 CHIN 301 Advanced Chinese (3)

Twelve additional credits in Chinese fulfilled in China (12)

#### Option II

CHIN 201 Intermediate Chinese I (3)  
 CHIN 206 Intermediate Chinese II (3)  
 CHIN 301 Advanced Chinese (3)  
 CHIN 320 Special Topics in Chinese (3)

*Nine credits from the following (9):*

CHIN 391 Independent Study (1-3)  
 HIST 371 Premodern Civilizations of Asia (3)  
 HIST 372 Modern Civilizations of Asia (3)  
 CHIN 260/IDCC 260 China Cross-Cultural (3)  
 PHIL 318 Asian Philosophy (3)  
 POLI 370 Topics in International Politics: Chinese Politics (3)  
 RELI 334 Religions of China and Japan (3)

## French Major

The French major encompasses a wide variety of courses to study the language itself, as well as the history, literature, culture, and civilization of French-speaking people. Introductory level courses focus on grammar, phonetics, conversation, composition and culture and are taught with an emphasis on oral proficiency. Intermediate and advanced courses are taught in French.

### French (B.A.) (36-42 credits)

FREN 101 Fundamentals of French I (3)  
 FREN 102 Fundamentals of French II (3)  
 FREN 201 Intermediate French (3)  
 FREN 206 French Culture and Language (3)  
 LANG 493 Modern Languages Seminar (3)

*27 credits from the following:*

*At least 9 credits of the following:*

FREN 301 Contemporary French Culture (3)  
 FREN 320 Selected Topics in French (3)  
 FREN 401 Advanced Composition and Conversation I (3)  
 FREN 402 Advanced Composition and Conversation II (3)

*At least 15 credits of Approved French courses through the ISA Program in Paris, France.* Students may select among a variety of humanities courses that may include grammar, literature, history, art history, or political science. Students should confirm with the Department of Modern Languages that the courses they select are approved for the French major.

Note: A minimum of 33 credits in French (FREN) is required.

### French with K-12 Teaching Certification (B.A.) (86 Credits)

FREN 101 Fundamentals of French I (3)  
 FREN 102 Fundamentals of French II (3)  
 FREN 201 Intermediate French (3)  
 FREN 206 French Culture and Language (3)  
 LANG 493 Modern Language Seminar (3)

*27 credits from the following:*

*At least three of the following (9):*

FREN 301 Contemporary French Culture (3)  
 FREN 320 Selected Topics in French (3)  
 FREN 401 Advanced Composition and Conversation (3)  
 FREN 402 Advanced Composition and Conversation (3)

*At least 15 credits of approved French courses through the ISA Program in Paris, France.* Students may select among a variety of humanities courses that may include grammar, literature, history, art history, or political science. Students should confirm with the Department of Modern Languages that the courses that they select are approved for the French major.

Note: A minimum of 33 credits in French (FREN) is required.

EDSP 207 Introduction to Special Education (3)

EDSP 307 Inclusion Practices (3)  
 EDUC 201 Education and American Society (3)  
 EDUC 203/PSYC 203 Educational Psychology (3)  
 EDUC 308 Instruction and Assessment with English Language Learners (3)  
 EDUC 331 Instructional Design and Assessment for Middle and Secondary Grades (3)  
 ENGL 122 to ENGL 176 Literature meeting General Education (3)  
 LANG 320 Foreign Language Teaching Methodology (3)  
 MATH/CIS/STAT XXX General Education (6)  
 TEP 210 Sophomore Field Experience (0)  
 TEP 310 Junior Field Experience (0)  
 TEP 410 Secondary Pre-Student Teaching Experience (0)

**Professional Semester:**

EDUC 420 Professional Issues in Education (2)  
 LANG 407 Language Curriculum and Instruction (1)  
 PSYC 311/HDFS 311 Adolescent Development (3)  
 TEP 435 Student Teaching: Secondary (8)

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**French Minor (21 credits beyond FREN 102)**

FREN 201 Intermediate French (3)  
 FREN 206 French Culture and Language (3)

Six credits from the following (6):

FREN 301 Contemporary French Culture (3)  
 FREN 320 Selected Topics in French (3)  
 FREN 401 Advanced Composition and Conversation I (3)  
 FREN 402 Advanced Composition and Conversation II (3)

Nine additional credits fulfilled at either the Grantham Campus, or the ISA Program in Paris, France, from the approved list.

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**German Major**

The German Major encompasses a wide variety of courses to study the language itself, as well as the history, literature, culture, and civilization of German-speaking people. Introductory level courses focus on grammar, phonetics, conversation, composition and culture and are taught with an emphasis on oral proficiency. Intermediate and advanced courses are taught in German.

**German (B.A.) (36-42 credits)**

GERM 101 Fundamentals of German I (3)  
 GERM 102 Fundamentals of German II (3)  
 GERM 201 Intermediate German (3)  
 GERM 206 Contemporary German Culture (3)  
 LANG 493 Modern Languages Seminar (3)  
 27 credits of approved German courses beyond the 206 level from one of the following two options:

**Option I (Two-Semester Study Abroad)**

Three credits from the following (3):

GERM 211 Unified Germany (3)  
 GERM 301 Readings in German Literature I (3)  
 GERM 302 Readings in German Literature II (3)

24 credits of approved German courses through the Brethren Colleges Abroad Program at Philipps-Universität Marburg, Germany. Students may select among a variety of humanities courses that may include grammar, literature, history, art history, or political science. Students should confirm with the Department of Modern Languages that the courses they select are approved for the German major.

**Option II (One-Semester Study Abroad)**

GERM 211 Unified Germany (3)  
 GERM 301 Readings in German Literature I (3)  
 GERM 302 Readings in German Literature II (3)

18 credits of approved German courses through the Brethren Colleges Abroad Program at Philipps-Universität Marburg, Germany. Students may select among courses in grammar, literature, history, or political science. See the Department of Modern Languages for approved course descriptions.

Note: A minimum of 33 credits in German (GERM) is required.

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**German with K-12 Teaching Certification (B.A.) (86 Credits)**

GERM 101 Fundamentals of German I (3)  
 GERM 102 Fundamentals of German II (3)  
 GERM 201 Intermediate German (3)  
 GERM 206 Contemporary German Culture (3)  
 LANG 493 Modern Language Seminar (3)

27 credits of approved German courses beyond the 206 level from one of the following two options:

**Option I (Two-Semester Study Abroad)**

Three credits from the following (3):

GERM 211 Unified Germany (3)  
 GERM 301 Readings in German Literature I (3)  
 GERM 302 Readings in German Literature II (3)

24 credits of approved German courses through the Brethren Colleges Abroad Program at Philipps-Universität Marburg, Germany. Students may select among a variety of humanities courses that may include grammar, literature, history, art history, or political science. Students should confirm with the Department of Modern Languages that the courses that they select are approved for the German major.

**Option II (One-Semester Study Abroad)**

GERM 211 Unified Germany (3)  
 GERM 301 Readings in German Literature I (3)  
 GERM 302 Readings in German Literature II (3)

18 credits of approved German courses through the Brethren Colleges Abroad Program at Philipps-Universität Marburg, Germany. Students may select among courses in grammar, literature, history, or political science.

Note: A minimum of 33 credits in German (GERM) is required.

EDSP 207 Introduction to Special Education (3)  
 EDSP 307 Inclusion Practices (3)  
 EDUC 201 Education and American Society (3)  
 EDUC 203/PSYC 203 Educational Psychology (3)  
 EDUC 308 Instruction and Assessment with English Language Learners (3)  
 EDUC 331 Instructional Design and Assessment for Middle and Secondary Grades (3)  
 ENGL 122 to ENGL 176 Literature meeting General Education (3)  
 MATH/CIS/STAT XXX General Education Mathematics (6)  
 TEP 210 Sophomore Field Experience (0)  
 TEP 310 Junior Field Experience (0)  
 TEP 410 Secondary Pre-Student Teaching Experience (0)  
 LANG 320 Foreign Language Teaching Methodology (3)

**Professional Semester:**

EDUC 420 Professional Issues in Education (2)  
 LANG 407 Language Curriculum and Instruction (1)  
 PSYC 311/HDFS 311 Adolescent Development (3)  
 TEP 435 Student Teaching: Secondary (8)

### **German Minor (21 credits beyond GERM 102)**

GERM 201 Intermediate German (3)

GERM 206 Contemporary German Culture (3)

*Three credits from the following:*

GERM 211 Unified Germany (3)

GERM 301 Readings in German Literature I (3)

GERM 302 Readings in German Literature II (3)

Twelve additional credits fulfilled at Philipps-Universität Marburg, Germany, from the approved list.

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### **Spanish Major**

The Spanish Major encompasses a wide variety of courses to study the language itself, as well as the history, literature, culture, and civilization of the Spanish-speaking peoples. Introductory level courses focus on grammar, phonetics, conversation, composition and culture and are taught with an emphasis on oral proficiency. Intermediate and advanced courses are taught in Spanish.

#### **Spanish (B.A.) (45 credits)**

SPAN 101 Fundamentals of Spanish I (3)

SPAN 102 Fundamentals of Spanish II (3)

SPAN 201 Intermediate Spanish (3)

SPAN 206 Spanish Conversation and Composition (3)

LANG 493 Modern Language Seminar (3)

*Three credits from the following (3):*

SPAN 301 Topics in Latin American Literature (3)

SPAN 302 Culture and Identity in Latin America (3)

SPAN 305 Latin American Plays of Protest (3)

SPAN 306 Contemporary Mexico (3)

*Three credits from the following (3):*

SPAN 311 Topics in Spanish Peninsular Literature (3)

SPAN 312 Topics in Spanish Peninsular Culture (3)

SPAN 314 The Counter Reformation and the Spanish Baroque (3)

*Three credits from the following (3):*

SPAN 320 Spanish Linguistics (3)

SPAN 322 Applied Phonetics (3)

SPAN 324 Contrastive Linguistics (3)

*One of the following two options (6):*

**Option 1** (for students who take SPAN 301, SPAN 305 or SPAN 311 to fulfill credits in the categories above):

Six additional credits in Spanish electives beyond the 206-level.

**Option 2** (for students who do **not** take SPAN 301, SPAN 305 or SPAN 311 to fulfill credits in the categories above):

*Three credits from the following:*

SPAN 301 Topics in Latin American Literature (3)

SPAN 305 Latin American Plays of Protest (3)

SPAN 311 Topics in Spanish Peninsular Literature (3)

SPAN 331 Trans-Atlantic Literature (3)

*Three additional credits in Spanish elective(s) beyond the 206 level*

*Fifteen credits of the following (15):* Approved Spanish courses through the Brethren Colleges Abroad program at the University of Barcelona, Spain, or through the ISA program at the Pontificia Universidad Catolica de Valparaiso, Chile. Students must complete at least one Latin American or Spanish peninsular literature class (3). Additional courses should be selected among a variety of humanities courses that may include grammar, literature, history, art history, or political science to attain a total of 15 credits of Spanish classes. Students should confirm with the Department of

Modern Languages that the courses they select are approved for the Spanish major.

**Note:** A minimum of 33 credits in Spanish (SPAN) is required.

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#### **Spanish with K-12 Teaching Certification (B.A.) (89 credits)**

SPAN 101 Fundamentals of Spanish I (3)

SPAN 102 Fundamentals of Spanish II (3)

SPAN 201 Intermediate Spanish (3)

SPAN 206 Spanish Conversation and Composition (3)

LANG 493 Modern Language Seminar (3)

*Three credits from the following (3):*

SPAN 301 Topics in Latin American Literature (3)

SPAN 302 Culture and Identity in Latin America (3)

SPAN 305 Latin American Plays of Protest (3)

SPAN 306 Contemporary Mexico (3)

*Three credits from the following (3):*

SPAN 311 Topics in Spanish Peninsular Literature (3)

SPAN 312 Topics in Spanish Peninsular Culture (3)

SPAN 314 The Counter Reformation and the Spanish Baroque (3)

*Three credits from the following (3):*

SPAN 320 Spanish Linguistics (3)

SPAN 322 Applied Phonetics (3)

SPAN 324 Contrastive Linguistics (3)

*One of the following two options (6):*

**Option 1** (for students who take SPAN 301, SPAN 305 or SPAN 311 to fulfill credits in the categories above):

Six additional Spanish electives beyond the 206-level.

**Option 2** (for students who do **not** take SPAN 301, SPAN 305 or SPAN 311 to fulfill credits in the categories above):

*Three credits from the following:*

SPAN 301 Topics in Latin American Literature (3)

SPAN 305 Latin American Plays of Protest (3)

SPAN 311 Topics in Spanish Peninsular Literature (3)

SPAN 331 Trans-Atlantic Literature (3)

*Three additional Spanish elective(s) beyond the 206 level*

*15 credits of the Approved Spanish courses through the Brethren Colleges Abroad program at the University of Barcelona, Spain, or through the ISA program at the Pontificia Universidad Catolica de Valparaiso, Chile.* Students must complete at least one Latin American or Spanish peninsular literature class (3). Additional courses should be selected among a variety of humanities courses that may include grammar, literature, history, art history, or political science to attain a total of 15 credits of Spanish classes. Students should confirm with the Department of Modern Languages that the courses that they select are approved for the Spanish major.

EDSP 207 Introduction to Special Education (3)

EDSP 307 Inclusion Practices (3)

EDUC 201 Education and American Society (3)

EDUC 203/PSYC 203 Educational Psychology (3)

EDUC 308 Instruction and Assessment with English Language Learners (3)

EDUC 331 Instructional Design & Assessment for Middle & Secondary Grades (3)

ENGL 122 to ENGL 176 Literature meeting General Education (3)

LANG 320 Foreign Language Teaching Methodology (3)

MATH/CIS/STAT XXX General Education Mathematics (6)

TEP 210 Sophomore Field Experience (0)

TEP 310 Junior Field Experience (0)

TEP 410 Secondary Pre-Student Teaching Experience (0)

#### **Professional Semester:**

EDUC 420 Professional Issues in Education (2)

LANG 407 Language Curriculum and Instruction (1)  
PSYC 311/HDFS 311 Adolescent Development (3)  
TEP 435 Student Teaching: Secondary (8)  
**Note:** A minimum of 33 credits in Spanish (SPAN) is required.

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#### **Spanish Minor (21 credits beyond SPAN 102)**

SPAN 201 Intermediate Spanish (3)  
SPAN 206 Spanish Conversation and Composition (3)

*Six credits from the following (6):*

SPAN 211 Spanish Theatre Production (3)  
SPAN 301 Topics in Latin American Literature (3)  
SPAN 302 Culture and Identity in Latin America (3)  
SPAN 305 Latin American Plays of Protest (3)  
SPAN 306 Contemporary Mexico (3)  
SPAN 311 Topics in Spanish Peninsular Literature (3)  
SPAN 312 Topics in Spanish Peninsular Culture (3)  
SPAN 314 The Counter Reformation and the Spanish Baroque (3)  
SPAN 320 Spanish Linguistics (3)  
SPAN 322 Applied Phonetics (3)  
SPAN 324 Contrastive Linguistics (3)  
SPAN 331 Trans-Atlantic Literature (3)

Nine additional credits fulfilled at Grantham, Barcelona, Spain, or Valparaíso, Chile from the approved list on the departmental website. Students who do not study in Barcelona or Valparaíso may include a cross-cultural course IDCC 260 to a Spanish-speaking country directed by a faculty member from the Department of Modern Languages (or by approval of the Department Chair) among the nine additional credits. Students must complete assignments for the cross-cultural course in Spanish.

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#### **Spanish Business Major**

The Spanish Business Major is sponsored by the Department of Modern Languages and the Department of Management and Business. It offers a core business curriculum and weaves second language study throughout the entire four years. Special attention is given to the development of cultural understanding with direct experience in Latin America.

#### **Spanish Business (B.A.) (76–77 credits)**

SPAN 101 Fundamentals of Spanish I (3)  
SPAN 102 Fundamentals of Spanish II (3)  
SPAN 201 Intermediate Spanish (3)  
SPAN 206 Spanish Conversation and Composition (3)  
SPAN 221 Business Spanish (3)

*Nine credits from the following:*

SPAN 211 Spanish Theatre Production (3)  
SPAN 301 Topics in Latin American Literature (3)  
SPAN 302 Culture and Identity in Latin America (3)  
SPAN 305 Latin American Plays of Protest (3)  
SPAN 306 Contemporary Mexico (3)  
SPAN 311 Topics in Spanish Peninsular Literature (3)  
SPAN 312 Topics in Spanish Peninsular Culture (3)  
SPAN 314 The Counter Reformation and the Spanish Baroque (3)  
SPAN 320 Spanish Linguistics (3)  
SPAN 322 Applied Phonetics (3)  
SPAN 324 Contrastive Linguistics (3)  
SPAN 331 Trans-Atlantic Literature (3)

ACCT 141 Financial Accounting (3)  
BUSA 102 Opportunities in Business (1)

BUSA 120 Principles of Management (3)  
CIS 190 Strategic Use of Information Technology (3)  
ECON 120 Introduction to Economics – Macro Economics (3)  
ECON 220 Principles of Microeconomics (3)  
ECON 312 Economic Development (3)  
IBUS 375 International Business and World Economy (3)  
IBUS 377 Ministry in International Business (3)  
LANG 493 Modern Languages Seminar (3)

*Three to four credits from the following (3):*

MATH 107 Applied Math for Management (3)  
MATH 108 Intuitive Calculus with Applications (3)  
MATH 111 Calculus I (4)

MRKT 230 Marketing Principles (3)

STAT 281 Applied Statistics for Management (3)

*15 credits of approved Spanish courses through the ISA program at the Pontificia Universidad Católica de Valparaíso or the Universidad Adolfo Ibáñez, Vina del Mar, Chile.* Students may select two business or economics courses, and they should also select among a variety of humanities courses that may include grammar, literature, history, art history, or political science. Students should confirm with the Department of Modern Languages that the courses that they select are approved for the Spanish Major.

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## **PHILOSOPHY**

**Department Chair:** Robin A. Collins  
**Administrative Assistant:** Deborah Chopka  
**Professors:** R. Basinger, R. Collins, C. Miller  
**Associate Professors:** D. Schenk, T. Schoettle

The Department of Philosophy offers a major in Philosophy (B.A.) and a minor in Philosophy.

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#### **Program Options**

The programs in the Department of Philosophy are designed to introduce students to a careful, systematic investigation of fundamental issues of reality and human experience. By addressing such issues as whether or not we have free will, God's relation to the world and to evil, and the nature and origin of morality, philosophy equips students with the sort of background and intellectual skills that will enrich their lives, enhance their effectiveness in virtually any career, and enable them to develop a distinctively Christian view of the world.

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#### **Philosophy Major**

The major in philosophy offers intensive training in analytical and critical thinking skills, a broad historical background in Western thought, and an exposure to Non-Western philosophy. This training can serve as a valuable basis for more advanced studies in graduate, law, or divinity school, and enhance the effectiveness of graduates in other professions. Moreover the Philosophy Major serves the church and the world by equipping Christians, whether laypersons or seminary-trained leaders, with the ability to address fundamental issues of concern to every person.

#### **Philosophy (B.A.) (36 credits)**

*Three credits from the following (3):*

PHIL 101 Problems in Philosophy (3)  
PHIL 102 History of Philosophy (3)  
PHIL 220 Introduction to Logic (3)



PHIL 247 Ancient and Medieval Philosophy (3)  
PHIL 253 Modern Philosophy (3)  
PHIL 310 Contemporary Continental Philosophy (3)  
PHIL 318 Asian Philosophy (3)  
*Three credits from the following (3):*  
    PHIL 325 Moral Problems (3)  
    PHIL 382 Ethics (3)  
PHIL 341 Epistemology and Metaphysics (3)  
PHIL 345 Philosophy of Religion (3)  
PHIL 460 Philosophy Seminar (3)  
Six credits from 300-level PHIL electives (6)

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## Philosophy Minor

The Philosophy Minor is designed for students who wish to supplement their primary education in another field with the study of philosophy. It also allows great flexibility to explore those areas of philosophy that are of the most interest and benefit to the individual student.

### Philosophy Minor (18 credits)

*Three credits from the following (3):*  
    PHIL 101 Problems in Philosophy (3)  
    PHIL 102 History of Philosophy (3)  
Five additional PHIL electives (15)

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# POLITICS and INTERNATIONAL RELATIONS

**Department Chair:** Paul Rego  
**Administrative Assistant:** Christine Walter  
**Professors:** D. Curry, J. Harles, R. Lauermann  
**Associate Professor:** P. Rego

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## Majors and Minors

The Department of Politics and International Relations offers the following majors:

- Politics (B.A.) *with concentrations in:*
  - International Relations
  - Political Studies
- Politics (B.A.) with an M.S. in Public Policy and Management (joint degree offered with Carnegie Mellon University)
- Sustainability Studies (B.A.) *Concentration:* Sustainability Public Policy (see Interdisciplinary section for details)

The Department of Politics and International Relations offers minors in Politics and Pre-Law.

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## Curricular Opportunities

The Department of Politics and International Relations introduces students to the major sub-fields of this discipline—American and comparative politics, international politics, and political theory—all within the context of a rigorous liberal arts education. By creating an intimate and collegial learning environment, one placing a premium on individual student initiative, the Department of Politics and International Relations produces intellectually agile, socially fluent, and self-confident graduates.

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## Politics Major

Politics Majors nurture the analytical, verbal, and written abilities that are the hallmark of the liberal arts. Our faculty encourage students to think independently, to engage opposing points of view, and to develop an abiding concern for public life in the interest of social justice. Moreover, the study of politics is an especially useful means of understanding the forces of globalization—the power relationships responsible for an increasingly integrated world. The Department of Politics and International Relations aims to educate students for democracy and for thoughtful and meaningful participation in the political process. As students of politics our task is to interpret the world and to change it.

### Politics (B.A.) (45 credits)

#### Core Curriculum (18 credits)

POLI 113 American Government (3)  
POLI 204 History of Political Thought (3)  
POLI 212 International Politics (3)  
POLI 213 Comparative Politics (3)  
POLI 243 Political Research Methods (3)  
POLI 494 Politics Seminar (3)

*One of the following concentrations:*

#### Political Studies Concentration (27 credits)

*27 credits\* from the following:*

    HIST 362 United States Foreign Policy (3)  
    POLI xxx Politics electives

#### International Relations Concentration (27 credits)\*

POLI 362 Theories of International Relations (3)  
POLI xxx Politics elective (3)  
ECON 120 Introduction to Economics – Macro Economics (3)  
ECON 220 Principles of Microeconomics (3)

*Four of the following (12 credits):*

    HIST 362 U.S. Foreign Policy (3)  
    POLI 222 Politics in Latin America (3)  
    POLI 342 Politics in Canada (3)  
    POLI 346 Russia After Communism (3)  
    POLI 348 Politics of the United Kingdom (3)  
    POLI 370 Topics in International Relations (3)

Any other approved POLI course or European or non-Western HIST course (3)

*Three credits from the following (3):*

    ECON 312 Economic Development (3)  
    IBUS 375 International Business and World Economy (3)

\*Nine credits is the maximum number of internship/practica credits that can apply toward the Politics Major. This maximum includes any courses or experiential credit earned as a part of a semester-long off-campus program.

### Politics with Political Studies (B.A.)/Public Policy and Management (M.S) – Messiah College and Carnegie Mellon University

Qualified students interested in pursuing graduate school in public policy are eligible to participate in an accelerated 32 program in conjunction with Carnegie Mellon University's Heinz School of Public Policy and Management. Students participating in this program complete three years of academic work at Messiah College followed by two years of graduate work at the Heinz School. At the end of the five year program the student receives a B.A. in Politics from Messiah College and a Master of Science in Public Policy and Management from Carnegie Mellon University. Students applying to this program must be approved by the Messiah program

coordinator and meet all Carnegie Mellon Heinz School admission requirements.

**Messiah College Courses (3 years)**

ECON 120 Introduction to Economics – Macro Economics (3)

POLI 113 American Government (3)

POLI 204 History of Political Thought (3)

POLI 212 International Politics (3)

POLI 213 Comparative Politics (3)

POLI 243 Political Research Methods (3)

POLI 323 Public Policy (3)

*15 credits from the following:*

HIST 362 United States Foreign Policy (3)

POLI xxx Politics elective courses (15)

**Note:** The submission of a five to seven page faith-politics integration paper under the direction of the Program Coordinator will be required for admission into the Public Policy and Management program.

**Carnegie Mellon University Courses (2 years)**

Four 12-unit courses (Carnegie Mellon University defines a 12-unit course as the equivalent of a three-semester-hour course) in public policy, political science, and/or methodology from Carnegie Mellon University's MS in Public Policy and Management curriculum

MS Public Policy and Management Capstone Course (3)

**Politics Minor (18 credits)\***

*Six credits from the following (6):*

POLI 113 American Government (3)

POLI 204 History of Political Thought (3)

POLI 212 International Politics (3)

POLI 213 Comparative Politics (3)

12 credits POLI courses (12)

\*No more than 3 credits from approved internships or practica

**Pre-Law Minor (21 credits)**

POLI 113 American Government (3)

POLI 214 Constitutional Law: Governmental Powers and Constraints (3)

PHIL 220 Introduction to Logic (3)

Three credit 300-level ENGL literature elective (3)

Three credit 300-level HIST elective (3)

*Six credits from the following (6):*

BUSA 381 Business Law I (3)\*

BUSA 382 Business Law II (3)

POLI 316 Constitutional Law: Civil Liberties (3)

POLI 392 Pre-Law Practicum (3)

\*BUSA 381 Business Law I is a prerequisite for BUSA 382 Business Law II.

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# School of Science, Engineering and Health

Dean: W. Ray Norman, Ph.D.

Administrative Assistant: Lori Zimmerman

The School of Science, Engineering and Health seeks to embody the mission of Messiah College by providing:

- Premier programs that are intellectually robust, experientially rich, and faith affirming;
- Cognitive, technical, and professional competencies required to excel in vocations related to our disciplines;
- Experience in applying academic knowledge to real-world challenges, in both local and global settings through service-oriented initiatives;
- An understanding of how our disciplines can support our Christian calling to be agents of redemption, peace, reconciliation, and justice in a fallen world.

The School of Science, Engineering and Health includes the following academic departments and programs:

- Department of Biological Sciences
- Department of Chemistry and Biochemistry
- Department of Engineering
- Department of Health and Human Performance
- Department of Information and Mathematical Sciences
- Department of Nursing
- Department of Nutrition and Dietetics
- Graduate Program of Nursing
- Pre-Professional Health Programs
  - Pre-Medical Programs
  - Pre-Allied Health Programs
  - Pre-Physical Therapy Programs
- The Collaboratory for Strategic Partnerships and Applied Research
- The Oakes Museum

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## BIOLOGICAL SCIENCES

Department Chair: Sheri L. Boyce

Administrative Assistant: Cynthia Steffan

Professors: S. Boyce, E. Davis, G. Emberger,  
D. Foster, E. Lindquist, J. Makowski,  
L. Mylin

Associate Professors: J. Harms, M. Shin

Assistant Professor: J. Erikson

Research Fellow: P. Thuma

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### Majors and Minors

The Department of Biological Sciences offers the following majors:

Biology (B.S.) *with concentrations in:*

Biomedical  
Cellular  
Ecological  
General  
Organismal

Biology with Secondary Teaching Certification (B.S.)

Biopsychology (B.S.) (see Interdisciplinary section)

Biopsychology (B.S.)/MSOT in Occupational Therapy –  
Thomas Jefferson University (see Interdisciplinary section)

Environmental Science (B.S.)

Molecular Biology (B.S.)

Sustainability Studies (B.A.) (see Interdisciplinary section) *with concentrations in:*

Community and Urban Development

Sustainable Agriculture

Sustainability Public Policy

The Department of Biological Sciences also offers a dual certification program wherein students major in Biology and complete certification requirements for both Biology (Secondary) and Environmental Education (K-12).

The Department of Biological Sciences offers the following minors:

Biology

Biology for Environmental Science Majors

Environmental Science

Environmental Science for Biology Majors

Sustainability Studies (see Interdisciplinary section)

Pre-Professional Health Programs

Pre-Medical

Pre-Allied Health

Pre-Physical Therapy

Special Program: AuSable Institute of Environmental Studies

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### Program Options

The Department of Biological Sciences seeks to provide students with an understanding of the sciences that will enable them to continue study in graduate school, medical school, the allied health field, or immediately seek employment in a variety of settings in industry, business, education, and government. The unique advantage of studying biological science at Messiah is that students work in the context of a Christian liberal arts education. Thus, while investigating the world around them, they also study themselves and their Creator. The Department places special emphasis on integrating the knowledge and methods of the sciences with what Christian faith teaches about people and their place in the universe.

Messiah College has outstanding facilities for the study of the biological sciences. The Jordan Science Center together with the Kline Hall of Science offers well-equipped laboratories, research facilities, computer facilities, much instrumentation including a scanning electron microscope, an NMR and HPLC, a greenhouse, and The Oakes Museum. The 400-acre campus includes woodlands, fields, and the Yellow Breeches Creek, affording excellent opportunities for field experiences. Field trips are a regular part of many courses, and special science courses have been offered in places such as Florida, Zambia, New Zealand, Patagonia, Belize, and the American Southwest Desert.

Biological Science Majors find a variety of research opportunities available. These enable students to combine theory with different experimental techniques both in the lab and the field. Internships are available which give students practical experience in their selected profession. Seniors are strongly encouraged to complete a “professional” experience prior to graduation. In most cases this will involve a field or laboratory research project or honors project under the direction of a faculty member. Other students will do an off-campus research internship or serve as senior laboratory assistants. For program assessment, all majors are required to take an internal assessment exam during their sophomore year and the Educational Testing Services Major Field Test during their senior year.

Messiah College is affiliated with AuSable Institute of Environmental Studies in Mancelona, Michigan. The Department encourages science students to participate in the various programs offered by the Institute near the Great Lakes in Michigan; South Florida; and in south India. Financial assistance is available to students wishing to study at AuSable during the summer.

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## Departmental Honors

The purpose of Departmental Honors is to encourage scholarly initiative and in-depth investigation within a limited area of study in the student's major. In the Department of Biological Sciences, students work under the direction of a faculty member to plan and carry out scientific research that culminates in both written and oral presentations of the project. To graduate with Departmental Honors, students must apply during the junior year and enroll in BIOL 393/CHEM 393 Research Methods, followed by five to six credits of BIOL 497, 498 Major Honors during the senior year. Detailed information can be obtained from the student's academic advisor.

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## Pre-Medical, Pre-Allied Health, and Pre-Physical Therapy Programs

Many students preparing for careers in health care professions choose to major in the biological sciences, where there is excellent overlap with the requirements of health care programs. For more information about the Pre-Medical, Pre-Allied Health, or Pre-Physical Therapy Programs at Messiah College, please refer to the Pre-Professional Health Programs section of this Catalog.

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## Biology Major

The Biology major provides a strong foundation in biology, from the molecular to the ecological level. The major includes a choice of five different concentrations:

**Biomedical:** Preparation for graduate and professional programs in research and health (medical, dental, veterinary, physician's assistant, optometry, etc.)

**Cellular:** Emphasizes study of biomolecules, cellular processes, molecular genetics and biotechnology

**Ecological:** Focuses on the interactions of organisms and their environment, and the tools to quantify those relationships

**Organismal:** Emphasizes the study of the diversity, structure, function, and behavior of living organisms

**General:** Provides broad exposure to all aspects of biology

The major also includes supporting courses in chemistry and mathematics. Graduates with a biology degree will be well-prepared for further studies and specialization in graduate schools, medical and veterinary schools, and other health career programs. Students following this major are also prepared to seek immediate employment in a variety of settings requiring the skills and knowledge of a biology major.

Biology majors interested in a teaching career should follow the secondary teaching certification curriculum for biology. This highly recognized curriculum is excellent preparation for teaching biology in grades 7 to 12 and for earning Pennsylvania State Certification. Biology, chemistry, and a physics course provide a sound basis for teaching biology, and education courses provide the tools needed

for teaching. The program culminates in a 12-week student teaching experience in a selected public school.

### Biology (B.S.) (Core requirements 49–50 credits)

\*Biology majors must have three 300/400 level lab courses **OR** two 300/400 level lab courses and one 200/300/400 BIOL course with extensive field experience (BIOL 218, 269, 290, 297).

BIOL 160 Molecular and Cellular Biology (4)

BIOL 161 Animal Form and Function (3)

BIOL 162 Plant Form and Function (3)

BIOL 260 Genetics and Development (3)

BIOL 262 Ecology and Adaptation (4)

BIOL 495/CHEM 495 Capstone: Natural Sciences (3)

CHEM 105 General Chemistry I (4)

CHEM 106 General Chemistry II (4)

CHEM 309 Organic Chemistry I (4)

CHEM 310 Organic Chemistry II (4)

*Three to four credits from the following (3-4):*

MATH 108 Intuitive Calculus with Applications (3)

MATH 111 Calculus I (4)

*Three credits from the following (3):*

PHIL 101 History of Philosophy (3)

PHIL 102 Problems in Philosophy (3)

PHYS 201 Introductory Physics I (4)

STAT 269 Introductory Statistics (3)

*One of the following concentrations, minimum of 17 credits:*

### Biomedical Concentration (17-18 credits)

BIOL 385 Physiology (4)

*Four credits from the following (4)\*:*

BIOL 381 Microbiology (4)

BIOL 382 Microbiology for Health Professions (4)

*Three to four credits from the following (3-4)\*:*

BIOL 321 Mycology (4)

BIOL 325 Medicinal Botany (3)

BIOL 332 Plant Taxonomy (4)

BIOL 334 Plant Ecology (4)

BIOL 335 Plant Propagation (3)

BIOL 356 Ornithology (4)

BIOL 358 Herpetology (4)

BIOL 362 Aquatic Zoology (4)

*Five to six credits from the following (5-6)\*:*

BIOL 218 Health Care in the Developing World (3)

BIOL 313 Developmental Biology (3)

BIOL 317 Bioethics (3)

BIOL 386 Human Anatomy (4)

BIOL 387 Neuroscience (3)

BIOL 391 Biology Practicum (1-3)

BIOL 393/CHEM 393 Research Methods (1) and one of the following:

BIOL 422/CHEM 422/NUTR 422 Senior Research (1-3)

BIOL 497 and BIOL 498 Major Honors (2-3, 2-3)

BIOL 418 Immunology (4)

CHEM 410 Biochemistry I (4)

*Au Sable Institute Option: ASI 452 Environmental Health (4)*

**Cellular Concentration (17-20)**

BIOL 413 Molecular Biology (4)

*Four credits from the following (4)\*:*

BIOL 412 Cell Biology (4)

BIOL 417 Molecular Genetics (4)

*Three to four credits from the following (3-4)\*:*

BIOL 313 Developmental Biology (3)

BIOL 385 Physiology (4)

BIOL 418 Immunology (4)

*Three to four credits from the following (3-4)\*:*

BIOL 321 Mycology (4)

BIOL 325 Medicinal Botany (3)

BIOL 332 Plant Taxonomy (4)

BIOL 334 Plant Ecology (4)

BIOL 335 Plant Propagation (3)

BIOL 356 Ornithology (4)

BIOL 358 Herpetology (4)

BIOL 362 Aquatic Zoology (4)

*One to four credits from the following (1-4)\*:*

BIOL 313 Developmental Biology (3)

BIOL 381 Microbiology (4)

BIOL 382 Microbiology for Health Professions (4)

BIOL 385 Physiology (4)

BIOL 387 Neuroscience (3)

BIOL 391 Biology Practicum (1-3)

BIOL 393/CHEM 393 Research Methods (1) and one of the following:

BIOL 422/CHEM 422/NUTR 422 Senior Research (1-3)

BIOL 497 and BIOL 498 Major Honors (2-3, 2-3)

BIOL 412 Cell Biology (4)

BIOL 417 Molecular Genetics (4)

BIOL 418 Immunology (4)

CHEM 410 Biochemistry I (4)

*Au Sable Institute Options:*

ASI 360 Molecular Tools for the Field Biologist (4)

**Ecological Concentration (17-18 credits)**

*Four credits from the following (4)\*:*

BIOL 381 Microbiology (4)

BIOL 382 Microbiology for Health Professions (4)

*Three credits from the following (3)\*:*

BIOL 313 Developmental Biology (3)

BIOL 348 Animal Behavior (3)

*Four credits from the following (4)\*:*

BIOL 321 Mycology (4)

BIOL 332 Plant Taxonomy (4)

BIOL 356 Ornithology (4)

BIOL 358 Herpetology (4)

BIOL 362 Aquatic Zoology (4)

*Three credits from the following (3)\*:*

BIOL 269 Ecology of Florida (3)

BIOL 290 Topics in Field Biology (3)

BIOL 297 Tropical Biology- Latin America (3)

*Three to four credits from the following (3-4)\*:*

BIOL 271 Ecological Field Techniques (2)

BIOL 274 Environmental Science (3)

BIOL 334 Plant Ecology (4)

BIOL 391 Biology Practicum (1-3)

BIOL 393/CHEM 393 Research Methods (1) and one of the following:

BIOL 422/CHEM 422/NUTR 422 Senior Research (1-3)

BIOL 497 and BIOL 498 Major Honors (2-3, 2-3)

BIOL 413 Molecular Biology (4)

*Au Sable Institute Options:*

ASI 302 Limnology (4)

ASI 318 Marine Biology (4)

ASI 321 Animal Ecology (4)

ASI 345 Wildlife Ecology (4)

ASI 355 Watershed Stewardship (4)

ASI 359 Marine Mammals (4)

ASI 360 Molecular Tools for the Field Biologist (4)

ASI 427 Ecology of the Indian Tropics (4)

ASI 471 Conservation Biology (4)

ASI 478 Alpine Ecology (4)

ASI 482 Restoration Ecology (4)

**General Concentration (17-19)**

*Four credits from the following (4)\*:*

BIOL 381 Microbiology (4)

BIOL 382 Microbiology for Health Professions (4)

BIOL 412 Cell Biology (4)

BIOL 413 Molecular Biology (4)

*Three to four credits from the following (3-4)\*:*

BIOL 313 Developmental Biology (3)

BIOL 348 Animal Behavior (3)

BIOL 385 Physiology (4)

BIOL 387 Neuroscience (3)

BIOL 418 Immunology (4)

*Three to four credits from the following (3-4)\*:*

BIOL 321 Mycology (4)

BIOL 325 Medicinal Botany (3)

BIOL 332 Plant Taxonomy (4)

BIOL 334 Plant Ecology (4)

BIOL 335 Plant Propagation (3)

*Five to seven credits from the following (5-7)\*:*

BIOL 218 Health Care in the Developing World (3)

BIOL 269 Ecology of Florida (3)

BIOL 271 Ecological Field Techniques (2)

BIOL 274 Environmental Science (3)

BIOL 290 Topics in Field Biology (3)

BIOL 297 Tropical Biology: Latin America (3)

Any BIOL 300/400 level course approved for biology majors, excluding BIOL 495

BIOL 391 Biology Practicum (1-3)

BIOL 393/CHEM 393 Research Methods (1) and one of the following:

BIOL 422/CHEM 422/NUTR 422 Senior Research (1-3)

BIOL 497 and BIOL 498 Major Honors (2-3, 2-3)

CHEM 410 Biochemistry I (4)

*Au Sable Institute Options:*

ASI 302 Limnology (4)

ASI 318 Marine Biology (4)

ASI 321 Animal Ecology (4)

ASI 345 Wildlife Ecology (4)

ASI 359 Marine Mammals (4)

ASI 360 Molecular Tools for the Field Biologist (4)

ASI 427 Ecology of the Indian Tropics (4)

ASI 471 Conservation Biology (4)

ASI 478 Alpine Ecology (4)

ASI 482 Restoration Ecology (4)

**Organismal Concentration (17-20 credits)**

*Four credits from the following (4)\*:*

BIOL 381 Microbiology (4)

BIOL 382 Microbiology for Health Professions (4)

Three to four credits from the following (3-4)\*:

- BIOL 313 Developmental Biology (3)
- BIOL 348 Animal Behavior (3)
- BIOL 385 Physiology (4)

Four credits from the following (4)\*:

- BIOL 356 Ornithology (4)
- BIOL 358 Herpetology (4)
- BIOL 362 Aquatic Zoology (4)

Four credits from the following (4)\*:

- BIOL 321 Mycology (4)
- BIOL 332 Plant Taxonomy (4)

One to four credits from the following (1-4)\*:

- BIOL 269 Ecology of Florida (3)
- BIOL 290 Topics in Field Biology (3)
- BIOL 297 Tropical Biology- Latin America (3)
- BIOL 313 Developmental Biology (3)
- BIOL 334 Plant Ecology (4)
- BIOL 348 Animal Behavior (3)
- BIOL 385 Physiology (4)
- BIOL 391 Biology Practicum (1-3)
- BIOL 393/CHEM 393 Research Methods (1) and one of the following:

- BIOL 422/CHEM 422/NUTR 422 Senior Research (1-3)
- BIOL 497 and BIOL 498 Major Honors (2-3, 2-3)

BIOL 413 Molecular Biology (4)

*Au Sable Institute Options:*

- ASI 318 Marine Biology (4)
- ASI 321 Animal Ecology (4)
- ASI 345 Wildlife Ecology (4)
- ASI 359 Marine Mammals (4)
- ASI 360 Molecular Tools for the Field Biologist (4)

\*Biology majors must have three 300/400 level lab courses **OR** two 300/400 level lab courses and one 200/300/400 BIOL course with extensive field experience (BIOL 218, 269, 290, 297).

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#### **Biology with Secondary Teaching Certification (B.S.) (94-97 credits)**

- BIOL 160 Molecular and Cellular Biology (4)
- BIOL 161 Animal Form and Function (3)
- BIOL 162 Plant Form and Function (3)
- BIOL 260 Genetics and Development (3)
- BIOL 262 Ecology and Adaptation (4)

Three to four credits from the following (Integrative Biology) (3-4):

- BIOL 313 Developmental Biology (3)
- BIOL 385 Physiology (4)
- BIOL 386 Human Anatomy (4)
- BIOL 387 Neuroscience (3)
- BIOL 418 Immunology (4)

Four credits from the following (Cellular Biology) (4):

- BIOL 382 Microbiology for Health Professions (4)
- BIOL 412 Cell Biology (4)
- BIOL 413 Molecular Biology (4)
- CHEM 410 Biochemistry I (4)

Three to four credits from the following (Plant Biology) (3-4):

- BIOL 321 Mycology (4)
- BIOL 325 Medicinal Botany (3)
- BIOL 332 Plant Taxonomy (4)
- BIOL 334 Plant Ecology (4)
- BIOL 335 Plant Propagation (3)

BIOL 495/CHEM 495 Capstone: Natural Sciences (3)

CHEM 105 General Chemistry I (4)

CHEM 106 General Chemistry II (4)

CHEM 204 Introduction to Organic Chemistry (4)

ESS 201 Earth and Space Science (3)

EDSP 207 Introduction to Special Education (3)

EDSP 307 Inclusion Practices (3)

EDUC 201 Education and American Society (3)

EDUC/PSYC 203 Educational Psychology (3)

EDUC 308 Instruction and Assessment with English Language Learners (3)

EDUC 331 Instructional Design and Assessment for Middle and Secondary Grades (3)

ENGL 122 to ENGL 176 Literature meeting General Education (3)

Three to four credits from the following (3-4):

- MATH 108 Intuitive Calculus with Applications (3)
- MATH 111 Calculus I (4)

Three credits from the following (3):

- PHIL 101 Problems in Philosophy (3)
- PHIL 102 History of Philosophy (3)

PHYS 201 Introductory Physics I (4)

STAT 269 Introductory Statistics (3)

TEP 210 Sophomore Field Experience (0)

TEP 310 Junior Field Experience (0)

TEP 410 Secondary Pre-Student Teaching Experience (0)

#### **Professional Semester:**

BIOL 407/CHEM 407 Secondary Science Curriculum and Instruction (2)

EDUC 420 Professional Issues in Education (2)

PSYC 311/HDFS 311 Adolescent Development (3)

TEP 435 Student Teaching: Secondary (8)

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#### **Biology (Secondary) and Environmental Education (K-12) with Dual Teaching Certification (B.S.) (109-112 credits).** (Dual certification program - only completed in conjunction with Biology Teaching Certification)

BIOL 160 Molecular and Cellular Biology (4)

BIOL 161 Animal Form and Function (3)

BIOL 162 Plant Form and Function (3)

BIOL 260 Genetics and Development (3)

BIOL 262 Ecology and Adaptation (4)

BIOL 495/CHEM 495 Capstone: Natural Sciences (3)

Three to four credits from the following (Integrative Biology) (3-4):

- BIOL 313 Developmental Biology (3)
- BIOL 385 Physiology (4)
- BIOL 386 Human Anatomy (4)
- BIOL 387 Neuroscience (3)
- BIOL 418 Immunology (4)

Four credits from the following (Cellular Biology) (4):

- BIOL 382 Microbiology for Health Professions (4)
- BIOL 412 Cell Biology (4)
- BIOL 413 Molecular Biology (4)
- CHEM 410 Biochemistry I (4)

Three to four credits from the following (Plant Biology) (3-4):

- BIOL 321 Mycology (4)
- BIOL 325 Medicinal Botany (3)
- BIOL 332 Plant Taxonomy (4)
- BIOL 334 Plant Ecology (4)
- BIOL 335 Plant Propagation (3)

CHEM 105 General Chemistry I (4)

CHEM 106 General Chemistry II (4)

CHEM 204 Introduction to Organic Chemistry (4)

Three credits from the following (3):

- PHIL 101 Problems in Philosophy (3)
- PHIL 102 History of Philosophy (3)

EDSP 207 Introduction to Special Education (3)  
 EDSP 307 Inclusion Practices (3)  
 EDUC 201 Education and American Society (3)  
 EDUC/PSYC 203 Educational Psychology (3)  
 EDUC 308 Instruction and Assessment with English Language Learners (3)  
 EDUC 331 Instructional Design and Assessment for Middle and Secondary Grades (3)  
 ENGL 122 to ENGL 176 Literature meeting General Education (3)  
*Three to four credits from the following (3-4):*  
 MATH 108 Intuitive Calculus with Applications (3)  
 MATH 111 Calculus I (4)  
 PHYS 201 Introductory Physics I (4)  
 STAT 269 Introductory Statistics (3)  
 TEP 210 Sophomore Field Experience (0)  
 TEP 310 Junior Field Experience (0)  
 TEP 410 Secondary Pre-Student Teaching Experience (0)  
 BIOL 271 Ecological Field Techniques (2)  
 BIOL 274 Environmental Science (3)  
 BIOL 315 Environmental Ethics (3)  
 BIOL 392 Environmental Education Practicum (3)  
*Four credits from the following (4):*  
 BIOL 356 Ornithology (4)  
 BIOL 358 Herpetology (4)  
 ESS 201 Earth and Space Science (3)

#### **Professional Semester:**

BIOL 407/CHEM 407 Secondary Science Curriculum and Instruction (2)  
 PSYC 311/HDFS 311 Adolescent Development (3)  
 EDUC 420 Professional Issues in Education (2)  
 TEP 435 Student Teaching: Secondary (8)

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#### **Biology Minor (20 credits)**

BIOL 160 Molecular and Cellular Biology (4)  
 BIOL 161 Animal Form and Function (3)  
 BIOL 162 Plant Form and Function (3)  
 Ten credits of BIOL courses approved for the Biology Major\* (10)  
 \*Certain courses within this range may require additional prerequisites, which would increase the total credits required for the minor.

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#### **Biology Minor for Environmental Science Majors (18 credits)**

*Three to four credits from the following (Integrative Biology) (3-4):*

BIOL 313 Developmental Biology\* (3)  
 BIOL 385 Physiology\* (4)  
 BIOL 386 Human Anatomy\* (4)  
 BIOL 387 Neuroscience\* (3)  
 BIOL 418 Immunology\* (4)

*Four credits from the following the following (Cellular Biology) (4):*

BIOL 382 Microbiology for Health Professions\* (4)  
 BIOL 412 Cell Biology\* (4)  
 BIOL 413 Molecular Biology\* (4)  
 CHEM 410 Biochemistry I\* (4)

*Two to four credits of BIOL (or other) courses approved for the Biology Major\*\* (2-4)*

\*This course requires prerequisite(s), which may increase the total credits required for the minor.

\*\*Certain courses within this range may require additional prerequisites, which would increase the total credits required for the minor.

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## **Molecular Biology Major**

The Molecular Biology Major integrates studies in biology and chemistry for a strong foundation in the structure and function of macromolecules and an understanding of fundamental molecular processes of life. A common core of foundational courses from the traditional disciplines of chemistry and biology prepares the student for advanced coursework. Supporting courses in mathematics and physics are included in the major. Laboratory components common to most of the courses will provide opportunities to manipulate and analyze genes and their protein products. Computers and specialized software allow the student to visualize complex molecular structures such as proteins and DNA or to simulate experiments to compare with results obtained in the laboratory.

The Molecular Biology Major emphasizes the study of genes and how their products control and organize living systems (single cells to whole organisms) and allow organisms to adapt to their environment. The structure and function of informational, enzymatic and structural macromolecules will be studied with respect to how genes are regulated and how their products catalyze and control metabolic processes needed to sustain life. Students completing this major will be well prepared to continue their education in graduate programs or medical school, or to seek immediate employment in a variety of settings.

#### **Molecular Biology (B.S.) (71-74 Credits)**

BIOL 160 Molecular and Cellular Biology (4)  
 BIOL 161 Animal Form and Function (3)  
 BIOL 162 Plant Form and Function (3)  
 BIOL 260 Genetics and Development (3)  
 BIOL 412 Cell Biology (4)  
 BIOL 413 Molecular Biology (4)  
 BIOL 417 Molecular Genetics (4)  
 BIOL 495/CHEM 495 Capstone: Natural Sciences (3)

*Six to eight credits from the following (6-8):*

BIOL 348 Animal Behavior (3)  
 BIOL 262 Ecology and Adaptation (4)  
 BIOL 313 Developmental Biology (3)  
 BIOL 321 Mycology (4)  
 BIOL 325 Medicinal Botany (3)  
 BIOL 332 Plant Taxonomy (4)  
 BIOL 356 Ornithology (4)  
 BIOL 358 Herpetology (4)  
 BIOL 382 Microbiology for Health Professions (4)  
 BIOL 385 Physiology (4)  
 BIOL 386 Human Anatomy (4)  
 BIOL 387 Neuroscience (3)  
 BIOL 418 Immunology (4)  
 BIOL 422/CHEM 422/NUTR 422 Senior Research (2-3)  
 CHEM 221 Chemical Analysis I (4)  
 CHEM 321 Chemical Analysis II (4)  
 CHEM 337 Physical Chemistry I (3)  
 CHEM 409 Advanced Organic Chemistry (3)  
 PHYS 202 Intro Physics II or PHYS 212 General Physics II (4)

CHEM 105 General Chemistry I (4)  
 CHEM 106 General Chemistry II (4)  
 CHEM 309 Organic Chemistry I (4)  
 CHEM 310 Organic Chemistry II (4)  
 CHEM 410 Biochemistry I (4)  
 CHEM 412 Biochemistry II (4)

Three to four credits from the following (3-4):

MATH 108 Intuitive Calculus with Applications (3)  
MATH 111 Calculus I (4)

Three credits from the following (3):

PHIL 101 Problems in Philosophy (3)  
PHIL 102 History of Philosophy (3)

Four credits from the following (4):

PHYS 201 Introductory Physics I (4)  
PHYS 211 General Physics I (4)

STAT 269 Introductory Statistics (3)

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## Environmental Science

The environmental science curriculum provides a strong background for students planning a career in the environmental field. It is the recommended major for students who will enter graduate programs in such fields as ecology, environmental science, environmental law, environmental public policy, regional planning, landscape architecture, conservation biology, the marine sciences, etc.

It also provides an excellent background for those planning to directly enter the rapidly expanding environmental job market after college. Environmental science is an interdisciplinary curriculum drawing heavily from biology and chemistry with important contributions also from ethics, theology, economics, and mathematics.

The recommended first-year curriculum for the environmental science major is identical to the biology major in order to provide maximum flexibility for students. An important feature included in the environmental science curriculum is the encouraged participation at AuSable Institute of Environmental Studies, located in northern Michigan. Information on the AuSable program is available from the Department Office or your environmental science advisor.

### Environmental Science (B.S.) (70 – 71 credits)

BIOL 160 Molecular and Cellular Biology (4)  
BIOL 161 Animal Form and Function (3)  
BIOL 162 Plant Form and Function (3)  
BIOL 260 Genetics and Development (3)  
BIOL 262 Ecology and Adaptation (4)  
BIOL 271 Ecological Field Techniques (2)  
BIOL 274 Environmental Science (3)  
BIOL 315 Environmental Ethics (3)  
BIOL 321 Mycology (4) **or**  
    BIOL 332 Plant Taxonomy (4)  
BIOL 356 Ornithology (4) **or**  
    BIOL 358 Herpetology (4)  
BIOL 495 Capstone: Natural Sciences (3) **or**  
    SUST 495 Capstone: Sustainability Studies (3)  
CHEM 105 General Chemistry I (4)  
CHEM 106 General Chemistry II (4)  
CHEM 204 Introduction to Organic Chemistry (4)\*  
CHEM 340 Environmental Chemistry (4)\*  
Six credits approved electives (6)\*\*  
GIS 245 Introduction to Geographical Information Systems (3)  
MATH 108 Intuitive Calculus with Applications (3) **or**  
    MATH 111 Calculus I (4)  
PHIL 101 Problems in Philosophy (3) **or**  
    PHIL 102 History of Philosophy (3)  
STAT 269 Introductory Statistics (3)

\*All Environmental Science Majors must take CHEM 204 and CHEM 340. Those students intending to enter graduate school and whose work will involve a significant amount of chemical emphasis should substitute CHEM 309, 310 for CHEM 204.

\*\*All Environmental Science Majors are encouraged to complete one course at AuSable Institute. AuSable courses can count only as elective credit. Majors are also encouraged to do an internship and/or research experience.

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### Environmental Science Minor (20–21 credits)

BIOL 160 Molecular and Cellular Biology (4)  
BIOL 161 Animal Form and Function (3)  
BIOL 162 Plant Form and Function (3)  
BIOL 262 Ecology and Adaptation (4)  
BIOL 274 Environmental Science (3)  
Three to four credits of BIOL (or other) courses approved for the Environmental Science Major\* (3-4)  
\*Certain courses within this range may require additional prerequisites, which would increase the total credits required for the minor.

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### Environmental Science Minor for Biology Majors (18 credits)

BIOL 271 Ecological Field Techniques\* (2)  
BIOL 274 Environmental Science\* (3)  
BIOL 321 Mycology\* (4) **or**  
    BIOL 332 Plant Taxonomy\* (4)  
BIOL 356 Ornithology\* (4) **or**  
    BIOL 358 Herpetology\* (4)  
BIOL xxx (or other) courses approved for the Environmental Science Major (5)\*\*  
\*This course requires prerequisite(s), which may increase the total credits required for the minor.  
\*\*Certain courses within this range may require additional prerequisites, which would increase the total credits required for the minor.

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## AuSable Campus

Messiah College has a formal affiliation with AuSable Institute of Environmental Studies; it functions as Messiah College's field station. Students pay Messiah's tuition rate. Each year between 10 and 20 Messiah students participate in AuSable courses. Students seeking more information should consult the AuSable Catalog or their web page at [www.AuSable.org](http://www.AuSable.org).

Advanced Field Botany	Alpine Ecology
Animal Ecology	Aquatic Biology
Bioregional Models for Environmental Stewardship	
Ecological Agriculture	Environmental Chemistry
Field Botany	Field Geology
Fish Biology	Global Development
Insect Biology and Ecology	Land Resources
Limnology	Marine Invertebrates
Marine Mammals	Marine Stewardship (ecology)
Natural History in Spring	Ornithology
Restoration Ecology	Woody Plants



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# CHEMISTRY AND BIOCHEMISTRY

Department Chair:	Roseann K. Sachs
Administrative Assistant:	Cynthia Steffan
Professors:	R. Sachs, R. Schaeffer
Associate Professors:	J. Melton, A. Reeve
Assistant Professors:	A. Noble, H. Tims
Senior Lecturer:	J. Noble

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## Majors and Minors

The Department of Chemistry and Biochemistry offers the following majors:

- Biochemistry (B.A.)
- Biochemistry (B.A.)/Doctor of Pharmacy (PharmD) -  
University of the Sciences in Philadelphia
- Biochemistry (B.S.)
- Chemistry (B.A.) or (B.S.)
- Chemistry with Secondary Teaching Certification (B.A.)

The Department of Chemistry and Biochemistry offers a minor in Chemistry and Pre-Professional Health Programs in Pre-Medical, Pre-Allied Health and Pre-Physical Therapy.

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## Program Options

The Department of Chemistry and Biochemistry seeks to provide students with an understanding of the chemical sciences that will enable them to continue study in graduate school, medical school, the allied health field, or immediately enter a profession in teaching or in the chemical or pharmaceutical industry. A major in chemistry or biochemistry is ideal for students who thrive with a problem-solving approach to learning and doing science. The unique advantage of studying chemistry at Messiah is that students work in the context of a Christian liberal art education. Thus, while investigating the world around them, they also study themselves and their Creator. The Department places special emphasis on integrating the knowledge and methods of the sciences with what Christian faith teaches about people and their place in the universe.

Messiah College has outstanding facilities for the study of the chemistry and biochemistry. The Jordan Science Center together with the Kline Hall of Science offers well-equipped laboratories, research facilities, computer facilities, much instrumentation including an NMR, IR, GC-MS, HPLC, AA and several computational chemistry workstations.

Chemistry and Biochemistry majors are encouraged to take advantage of research opportunities available to them at the College. Involvement in a research project allows a student to apply the theory and skills that have been learned in earlier courses to the exploration of something new and is often the highlight of a student's academic work. Internships are available that give students practical experience in their selected profession. All majors are required to take the Educational Testing Service's Major Field Test during their senior year.

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## Pre-Medical and Pre-Allied Health Programs

Many students preparing for careers in health care professions choose to major in Chemistry or Biochemistry. For more information about the Pre-Medical or Pre-Allied Health Programs at

Messiah College, please refer to the Pre-Health Programs section of this catalog.

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## Biochemistry Major

The Biochemistry Major emphasizes a molecular understanding of biological processes. A fascination with atomic and molecular structure and function, as it controls the processes of life itself, is a sure indication that this major may be the one for you. Courses in this major explore the structure and function of nucleic acids, proteins, lipids, and carbohydrates, and how these molecules mediate chemical processes in the cell. In addition, biochemistry majors will learn both qualitative and quantitative methodologies needed to fully probe how molecular structure causes changes in biological processes. A thorough understanding of the biology of microorganisms, the application of both classical and modern genetics to living systems, and the transformation of molecular information in biological systems completes this major.

This major provides considerable versatility to a student, who will be well qualified to work in any area of biochemistry, molecular biology, or biotechnology.

In addition, the hands-on use of analytical instrumentation throughout this program will allow a student to easily succeed in a career in chemical analysis. These positions are abundant for Bachelor's level scientists and include applications in environmental chemistry and forensic science. Furthermore, this major is well suited for students planning to pursue a career in medical school or some other allied health profession. Finally, the Biochemistry major is outstanding preparation for a student planning to attend graduate school in biochemistry or molecular biology, as well as in interdisciplinary areas such as biophysics, neuroscience, genetics, cell biology and immunology.

### Biochemistry (B.S.) (71 credits)

BIOL 160 Molecular and Cellular Biology (4)

BIOL 260 Genetics and Development

BIOL 413 Molecular Biology (4)

*Four credits from the following:*

BIOL 382 Microbiology for Health Professions (4)

BIOL 412 Cell Biology (4)

BIOL 417 Molecular Genetics (4)

CHEM 105 General Chemistry I (4)

CHEM 106 General Chemistry II (4)

CHEM 309 Organic Chemistry I (4)

CHEM 310 Organic Chemistry II (4)

CHEM 410 Biochemistry I (4)

CHEM 412 Biochemistry II (4)

CHEM 221 Chemical Analysis I (4)

CHEM 321 Chemical Analysis II (4)

CHEM 337 Physical Chemistry I (3)

CHEM 390 Junior Chemistry Seminar (1)

CHEM 490 Senior Chemistry Seminar (1)

CHEM 495/BIOL 495 Capstone: Natural Sciences (3)

MATH 111 Calculus I (4)

MATH 112 Calculus II (4)

*Three credits from the following:*

PHIL 101 Problems in Philosophy (3)

PHIL 102 History of Philosophy (3)

PHYS 211 General Physics I (4)

PHYS 212 General Physics II (4)

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**Biochemistry (B.A.) (61-64 Credits)**

BIOL 160 Molecular and Cellular Biology (4)  
CHEM 105 General Chemistry I (4)  
CHEM 106 General Chemistry II (4)  
CHEM 309 Organic Chemistry I (4)  
CHEM 310 Organic Chemistry II (4)  
CHEM 410 Biochemistry I (4)  
CHEM 412 Biochemistry II (4)  
CHEM 221 Chemical Analysis I (4)  
CHEM 390 Junior Chemistry Seminar (1)  
CHEM 490 Senior Chemistry Seminar (1)

*Three credits from the following (3):*

CHEM 337 Physical Chemistry I (3)  
CHEM 409 Advanced Organic Chemistry (3)

CHEM 495/BIOL 495 Capstone: Natural Sciences (3)  
MATH 111 Calculus I (4)

*Three to four credits from the following (3-4):*

MATH 112 Calculus II (4)  
STAT 269 Introductory Statistics (3)

*Three credits from the following (3):*

PHIL 101 Problems in Philosophy (3)  
PHIL 102 History of Philosophy (3)

*One set of the following (8):*

PHYS 201 and PHYS 202 Introductory Physics I and II (8)  
PHYS 211 and PHYS 212 General Physics I and II (8)

*Six to eight credits from the following (6-8):*

BIOL 260 Genetics and Development (3)  
BIOL 325 Medicinal Botany (3)  
BIOL 382 Microbiology for Health Professions (4)  
BIOL 385 Physiology (4)  
BIOL 386 Human Anatomy (4)  
BIOL 387 Neuroscience (3)  
BIOL 412 Cell Biology (4)  
BIOL 413 Molecular Biology (4)  
BIOL 417 Molecular Genetics  
BIOL 418 Immunology (4)  
NUTR 222 Nutrition Theory (3)  
NUTR 322 Nutrition through the Life Cycle (3)  
HEXS 215 Chronic Disease and Exercise (3)  
HPED 322 Exercise Physiology (3)  
HEXS 415 Advanced Exercise Physiology (3)  
CHEM 321 Chemical Analysis II (4)

**Biochemistry (B.A.)/Doctor of Pharmacy (PharmD) – University of the Sciences in Philadelphia.** Contact the Department Chair for more information about this program.

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**Chemistry Major**

With many sciences such as ecology, medicine, material science, and food science turning increasingly to chemistry for explanations and understanding of their disciplines, many students are looking at careers in chemistry. The Chemistry Major curriculum includes courses in general chemistry, organic chemistry, chemical analysis, physical, and inorganic chemistry, and offers a variety of electives making it possible to tailor the program to the individual's interests and needs. Students not only learn the theory of instrumentation used in chemical research, but have hands-on experiences in the laboratory in which they become familiar with these techniques.

For students interested in teaching chemistry in grades seven to twelve, the chemistry secondary teaching curriculum should be

followed. Upon successful completion of this program and a 12-week student teaching experience, students receive certification by the Pennsylvania Department of Education.

**Chemistry Major (B.S.) (69 credits)**

CHEM 105 General Chemistry I (4)  
CHEM 106 General Chemistry II (4)  
CHEM 221 Chemical Analysis I (4)  
CHEM 309 Organic Chemistry I (4)  
CHEM 310 Organic Chemistry II (4)  
CHEM 321 Chemical Analysis II (4)  
CHEM 337 Physical Chemistry I (3)  
CHEM 338 Physical Chemistry II (4)  
CHEM 342 Advanced Synthesis and Spectroscopy (3)  
CHEM 361 Inorganic Chemistry (4)  
CHEM 390 Junior Chemistry Seminar (1)  
CHEM 490 Senior Chemistry Seminar (1)  
CHEM 495/BIOL 495 Capstone: Natural Sciences (3)  
CHEM xxx Chemistry elective (3)\*  
MATH 111 Calculus I (4)  
MATH 112 Calculus II (4)

*Four credits of the following:*

MATH 211 Calculus III (4) –or–  
MATH 210 Fundamentals of Vector Calculus (1) *and*  
MATH 270 Advanced Math for Sciences (3)

*Three credits from the following (3):*

PHIL 101 Problems in Philosophy (3)  
PHIL 102 History of Philosophy (3)  
PHYS 211 General Physics I (4)  
PHYS 212 General Physics II (4)

\*Approved Chemistry electives include any Chemistry course at the 200-level or above, excluding CHEM 391.

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**Chemistry (B.A.) (57-59 Credits)**

CHEM 105 General Chemistry I (4)  
CHEM 106 General Chemistry II (4)  
CHEM 221 Chemical Analysis I (4)  
CHEM 309 Organic Chemistry I (4)  
CHEM 310 Organic Chemistry II (4)  
CHEM 337 Physical Chemistry I (3)  
CHEM 390 Junior Chemistry Seminar (1)  
CHEM 490 Senior Chemistry Seminar (1)  
CHEM xxx Chemistry electives (10-12)\*  
CHEM 495/BIOL 495 Capstone: Natural Sciences (3)  
MATH 111 Calculus I (4)  
MATH 112 Calculus II (4)

*Three credits from the following (3):*

PHIL 101 Problems in Philosophy (3)  
PHIL 102 History of Philosophy (3)  
PHYS 211 General Physics I (4)  
PHYS 212 General Physics II (4)

\*Approved Chemistry electives include any Chemistry course at the 200-level or above, excluding CHEM 391.

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**Chemistry with Secondary Teaching Certification (B.A.) (95-97 credits)**

CHEM 105 General Chemistry I (4)  
CHEM 106 General Chemistry II (4)  
CHEM 221 Chemical Analysis I (4)  
CHEM 309 Organic Chemistry I (4)  
CHEM 310 Organic Chemistry II (4)

CHEM 337 Physical Chemistry I (3)  
 CHEM 390 Junior Chemistry Seminar (1)  
 CHEM xxx Chemistry electives\* (10-12)  
 CHEM 495/BIOL 495 Capstone: Natural Sciences (3)  
 EDSP 207 Introduction to Special Education (3)  
 EDSP 307 Inclusion Practices (3)  
 EDUC 201 Education and American Society (3)  
 EDUC/PSYC 203 Educational Psychology (3)  
 EDUC 308 Instruction and Assessment with English Language Learners (3)  
 EDUC 331 Instructional Design and Assessment for Middle and Secondary Grades (3)  
 ESS 201 Earth and Space Science (3)  
 ENGL 122 to ENGL 176 Literature meeting General Education (3)  
 MATH 111 Calculus I (4)  
 MATH 112 Calculus II (4)  
*Three credits from the following (3):*  
     PHIL 101 Problems in Philosophy (3)  
     PHIL 102 History of Philosophy (3)  
 PHYS 211 General Physics I (4)  
 PHYS 212 General Physics II (4)  
 TEP 210 Sophomore Field Experience (0)  
 TEP 310 Junior Field Experience (0)  
 TEP 410 Secondary Pre-Student Teaching Experience (0)

#### **Professional Semester:**

CHEM 407/BIOL 407 Secondary Science Curriculum and Instruction (2)  
 EDUC 420 Professional Issues in Education (2)  
 PSYC 311/HDFS 311 Adolescent Development (3)  
 TEP 435 Student Teaching: Secondary (8)

\*Approved Chemistry electives include any Chemistry course at the 200-level or above, excluding CHEM 391.

The general education Non-Western requirement will be waived for students taking Global Christian Theology (THEO 223) as their Christian Beliefs course. (See Teacher Education Program for specific policies).

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#### **Chemistry Minor (23-24 credits)**

CHEM 105 General Chemistry I (4)  
 CHEM 106 General Chemistry II (4)  
 CHEM 309 Organic Chemistry I (4)  
 CHEM 310 Organic Chemistry II (4)  
 CHEM xxx Chemistry courses approved for the Chemistry major\*\* (7-8)

**Note:** CHEM 410 and 412 cannot be counted in the Biology Major or Molecular Biology Major and the Chemistry Minor. CHEM 340 cannot be counted in both the Environmental Science Major and the Chemistry Minor. CHEM 495 cannot count toward a Chemistry minor.

\*\*Certain courses within this range may require additional prerequisites, which would increase the total credits required for the minor.

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## ENGINEERING

<b>Department Chair:</b>	Randall K. Fish
<b>Administrative Assistant:</b>	Jean McCauslin
<b>Professors:</b>	R. Fish, D. Pratt, D. Vader
<b>Associate Professors:</b>	T. Soerens, H. Underwood, T. VanDyke, T. Whitmoyer
<b>Assistant Professor:</b>	B. Swartz

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### Major

The Department of Engineering offers the following concentrations within the Engineering (B.S.E.) major:

Biomedical	Civil
Computer	Electrical
Environmental	Mechanical

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### Mission

Graduates of the Engineering Program will be technically **competent** and broadly **educated**, prepared for interdisciplinary work in the global workplace. The character and conduct of Messiah engineering graduates will be **consistent** with Christian faith commitments. We accomplish this mission through engineering instruction and experiences, an education in the liberal arts tradition and mentoring relationships with students.

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### Program Educational Objectives

- Graduates will be successful in engineering practice or other diverse fields that require analytical and/or professional skills
- Graduates will contribute to their fields or professions and society

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### Student Outcomes

Prior to graduation Messiah College Engineering students will demonstrate the ability to:

- a) Apply mathematics, science and engineering principles to real world engineering problems.
- b) Design and conduct experiments, analyze and interpret data.
- c) Design and use engineering systems, components, or processes to help solve practical problems within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- d) Work productively on multidisciplinary teams.
- e) Identify, formulate and solve engineering problems.
- f) Describe and purpose to keep a personal and professional ethical lifestyle consistent with the Christian faith.
- g) Use written and oral communication effectively.
- h) Possess the broad education necessary to understand the impact of engineering solutions in a global and societal context.
- i) Recognize of the need for and engage in life-long learning.
- j) Identify contemporary issues relevant to engineering solutions.
- k) Use the techniques, skills and modern engineering tools necessary for engineering research and practice.
- l) Work toward the integration of Christian faith, learning, and professional life.

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### Engineering Major

Messiah College awards a Bachelor of Science in Engineering (BSE) with a concentration in one or more of six concentrations: Biomedical, Civil, Computer, Electrical, Environmental and Mechanical. The Bachelor of Science in Engineering (BSE) degree is

accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

Messiah's engineering students explore both the art and science of engineering in preparation for creative professional practice. Building on a foundation of mathematics and the basic sciences, the engineering faculty use courses and customer-defined projects to ready students for entry-level engineering employment and/or advanced studies.

Engineering students at Messiah also consider the value and social impact of technology. Students are encouraged to explore service and missions opportunities for engineers, and to participate in activities that build leadership skills under the guidance of faculty members.

The following are recommended for prospective students in addition to the standard admissions requirements of the College:

1. Rank in the top 20% of high school class.
2. Complete four units or more of college preparatory mathematics, one unit of chemistry, and one unit of physics. A course or other preparation in computer programming is also helpful.
3. Earn a combined SAT score (Math, Verbal) of 1200 or higher or a composite ACT score of 27 or higher. A minimum mathematics SAT score of 600 or ACT score of 25 is highly desirable.

#### **Admission to the Engineering Major**

Admission to the Engineering major is a two-step process. First, a student must declare a Pre-Engineering major as a first-year student, transfer student, or change of major.

Pre-Engineering majors are eligible to enroll in the lower division engineering courses subject to the normal prerequisites. Second, to advance to upper division courses in the engineering curriculum, Pre-engineering students are required to apply for admission into the engineering major by declaring a concentration (Biomedical, Civil, Computer, Electrical, Environmental, or Mechanical) and by completing the following prerequisite courses (or the equivalents) with a grade of "C" or higher: MATH 111, MATH 112, MATH 211, PHYS 211, PHYS 212, ENGR 231, and ENGR 236.

The student begins the application process by completing items one through three of the "Application for Admission to Engineering Major (BSE) Program" form and submitting the form to her or his academic advisor. The academic advisor forwards the application to the Chair of the Department of Engineering. The Department Chair's approval and signature on this document admit the student to the Engineering major. The Department Chair will notify the applicant and her or his academic advisor of the decision in writing by the specified deadlines. Pre-Engineering students are strongly encouraged to apply for admission to the Engineering major as soon as eligible. The typical student who begins first-year studies as a Pre-Engineering major will complete all prerequisite courses by the end of the third semester. **Students who have not been admitted into the Engineering major will NOT be allowed to take 300-level or higher classes offered by the Department of Engineering.**

#### **Engineering (B.S.E.) Core Courses (30 credits)**

ENGR 101 Engineering Graphics (2)  
ENGR 102 Introduction to Engineering (2)  
ENGR 201 Group Orientation (1)  
ENGR 231 Engineering Statics (3)  
ENGR 236 Circuits I (4)  
ENGR 254 Materials Engineering (4)  
ENGR 288 Project I (1)  
ENGR 290 Engineering Economics (2)  
ENGR 301 Seminar I (1)  
ENGR 302 Seminar II (1)  
ENGR 366 Control Systems (4) (Not required for Civil Concentration)  
ENGR 388 Project II (1)  
ENGR 488 Project III (2)  
ENGR 489 Project IV (2)

#### **Required Supporting Courses (30 credits)**

CHEM 105 General Chemistry I (4)  
MATH 111 Calculus I (4)  
MATH 112 Calculus II (4)  
MATH 211 Calculus III (4)  
MATH 261 Linear Algebra (3)  
MATH 308 Differential Equations (3)  
PHYS 211 General Physics I (4)  
PHYS 212 General Physics II (4)  
***One of the following concentrations:***  
**Biomedical Concentration (29-30)**  
ENGR 232 Engineering Dynamics (3)  
ENGR 242 Experimental Methods (3)  
ENGR 333 Mechanics of Materials (3)  
ENGR 371 Thermodynamics (3)  
ENGR 372 Fluid Mechanics (4)  
ENGR 375 Bio-Instrumentation and Measurement (3)  
ENGR 410 BME Design (3)  
BIOL 160 Molecular and Cellular Biology or  
BIOL 161 Animal Form and Function (3-4)  
BIOL 385 Physiology (4)

#### **Civil Concentration (33 credits)**

ENGR 232 Engineering Dynamics (3)  
ENGR 242 Experimental Methods (3)  
ENGR 321 Environmental Engineering (4)  
ENGR 333 Mechanics of Materials (3)  
ENGR 351 Structural Analysis (3)  
ENGR 352 Structural Design (4)  
ENGR 371 Thermodynamics (3)  
ENGR 372 Fluid Mechanics (4)  
*Six credits from the following (6):*  
ENGR 322 Water Resources Engineering (3)  
ENGR 355 Soil Mechanics and Foundation Design (3) or  
ENGR 358 Construction Engineer Management (3)  
ENGR 357 Introduction to Traffic Engineering (3)

#### **Computer Concentration (28 credits)**

CIS 181 Computer Programming I (3)  
CIS 284 Computer Programming II (3)  
CIS 384 Elements of Computing Systems (3)  
CIS 385 Data Structures and Algorithms (3)  
ENGR 242 Experimental Methods (3)  
ENGR 336 Circuits II (3)  
ENGR 340 Analog Electronics (3)  
ENGR 342 Microprocessor Applications (4)

*Three credits from the following (3):*

CIS 332 Database Concepts (3)  
CIS 415 Data Communications and Networking (3)  
CIS 416 Operating Systems & Computer Architecture (3)  
CIS 432 Database Applications (3)  
CIS 482 Organization of Programming Languages (3)  
CIS 487 Interactive 3D Graphics (3)  
ENGR 364 Electrical Devices (4)  
ENGR 365 Linear Systems (3)  
ENGR 367 Electromagnetics (3)  
ENGR 369 Communications Systems (3)

#### **Electrical Concentration (29 credits)**

CIS 181 Computer Programming I (3)  
ENGR 242 Experimental Methods (3)  
ENGR 336 Circuits II (3)  
ENGR 340 Analog Electronics (3)  
ENGR 342 Microprocessor Applications (4)  
ENGR 364 Electrical Devices (4)  
ENGR 365 Linear Systems (3)  
ENGR 367 Electromagnetics (3)  
ENGR 369 Communications Systems (3)

#### **Environmental Concentration (31-32)**

ENGR 232 Engineering Dynamics (3)  
ENGR 242 Experimental Methods (3)  
ENGR 321 Environmental Engineering (3)  
ENGR 333 Mechanics of Materials (3)  
ENGR 371 Thermodynamics (3)  
ENGR 372 Fluid Mechanics (4)  
ENGR 440 Environmental Hydrology (3)

*Three to four credits from the following (3-4):*

BIOL 160 Molecular and Cellular Biology (4)  
BIOL 162 Plant Form and Function (3)

*Three credits from the following (3):*

BIOL 315 Environmental Ethics (3)  
ECON 117 Issues in Environmental Economics (3)  
GIS 245 Intro to Geographic Information Systems (3)

#### **Mechanical Concentration (29 credits)**

ENGR 232 Engineering Dynamics (3)  
ENGR 242 Experimental Methods (3)  
ENGR 333 Mechanics of Materials (3)  
ENGR 371 Thermodynamics (3)  
ENGR 372 Fluid Mechanics (4)  
ENGR 373 Instrumentation and Measurement (3)  
ENGR 374 Heat Transfer Analysis and Design (4)  
ENGR 381 Mechanical Design (3)  
ENGR 384 Manufacturing Process (3)

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## **HEALTH and HUMAN PERFORMANCE**

<b>Department Chair:</b>	Jodie Haak
<b>Assistant Chair:</b>	Scott Kieffer
<b>Administrative Assistant:</b>	Gina Jablonski
<b>Professors:</b>	S. Kieffer, D. Miller, S. Wentzell
<b>Associate Professors:</b>	J. Gustafson, J. Haak
<b>Assistant Professors:</b>	K. Hansen-Kieffer, R. Murray, M. Lewis, A. Poxes
<b>Senior Lecturers:</b>	S. Bush, W. Cheesman, D. Tanis
<b>Lecturer:</b>	J. Kauffman

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### **Majors and Minors**

The Department of Health and Human Performance offers the following majors:

Adventure Education (B.A.)  
Athletic Training (B.A.)  
Health and Exercise Science (B.A.) *with optional concentration in*  
Pre-Physical Therapy  
Health and Exercise Science (B.A.)/ MSOT in Occupational  
Therapy – Thomas Jefferson University  
Health and Physical Education with Teaching Certification K-  
12 (B.A.)  
Health and Physical Education Studies (B.A.)  
Sport Management (B.A.)

The Department of Health and Human Performance offers the following minors:

Adventure Education  
Athletic Training  
Health and Exercise Science  
Sport Management

#### **Pre-Professional Health Programs**

Pre-Medical  
Pre-Physical Therapy  
Pre-Allied Health

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### **Health and Human Performance Majors**

Majors in this department are designed to accommodate a variety of interests and vocational choices. The options include the following:

1. Health and Physical Education (Teacher Certification, Grades K-12)
2. Health and Exercise Science (for those desiring careers in corporate fitness, exercise physiology, cardiac rehabilitation, physical therapy, medicine, health promotion, etc.)
3. Athletic Training (for those desiring to pursue certification/licensure in athletic training)
4. Adventure Education (for those desiring to work as an adventure educator in an outdoor setting such as camps, college programs, ropes courses, or youth at risk programs)
5. Sport Management (for those desiring careers in the sports industry)

In addition to the above, four minors are available: Athletic Training; Adventure Education; Health and Exercise Science; and Sport Management. All Health and Human Performance Majors must satisfy standards of physical and motor fitness as prescribed by the department.

All Health and Physical Education Teaching Certification Majors and Athletic Training Majors must be formally approved for acceptance into their major programs. During the second semester of the sophomore year all students must make a formal application to be approved by the Department faculty. Athletic Training majors are required to join state and national professional organizations.

Additionally, students are expected to meet the following requirements:

1. Students must achieve the following GPA prior to senior class standing: Health and Physical Education—refer to Student Teaching Handbook.
2. Current certification in CPR/First Aid prior to the Professional Semester for Health and Physical Education Majors.
3. Provide own transportation for the Health and Exercise Science and Sport Management Practicum and Internship, Athletic Training practicum, Health and Physical Education student teaching experience or Adventure Education Internship.
4. Show proof of certain immunizations and background checks when necessary.

The facilities to support these majors are both modern and convenient. Indoor facilities include a natatorium, a weight training center, racquetball courts, indoor running track, fitness facility, and two large gymnasiums. Outdoor facilities include fields for both intramural and intercollegiate athletics, an eight-lane, all-weather, metric track, ten all-weather tennis courts, fitness trail, high ropes course, and low initiatives.

A variety of career and professional options are available to students selecting these majors, including but not limited to the following: public and private school teaching, athletic training, sports industry, exercise specialist, corporate fitness, cardiac rehabilitation, exercise physiologist, private club operations, health club instruction, outdoor adventure activities.

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## Adventure Education

This major will prepare the individual for a career as an adventure educator. The student will gain the theory, knowledge, skills, and experience necessary to successfully plan, implement, administer, and supervise educational experiences in the outdoor setting. Adventure education programs focus on the interpersonal relationships and personal growth that can occur during outdoor adventure activities and include challenge course experiences, extended wilderness trips, day activities such as rock climbing, caving, and canoeing. Students have the option of spending a semester on a National Outdoor Leadership School (NOLS) course in the Pacific Northwest, Rocky Mountains, or desert southwest. There are additional fees for courses that involve certifications and/or travel.

### Adventure Education (B.A.) (63-67 credits)

*Two credits of the following (2):*

AEDE 114 Canoeing (1)

AEDE 181 Caving (1)

AEDE 182 Rock Climbing (1)

AEDE 137 Challenge Course Experience (1)

AEDE 139 Wilderness Encounter (3)

AEDE 180 Wilderness First Responder (3)

AEDE 188 Challenge Course Facilitation (1)

AEDE 250 Foundations of Adventure Education (3)  
AEDE 251 Wilderness Education Assoc. Certification Course (3)  
AEDE 301 Leadership, Facilitation, and Group Dynamics (3)  
AEDE 351 Programming and Trip Design (3)  
AEDE 352 Trip Implementation and Evaluation (3)  
AEDE 401 Advanced Technical Skills (3)  
AEDE 411 Senior Seminar for Adventure Education Majors (3)

AEDE 485 Internship (4-8)

BIOL 117 Field Biology (3)

BIOL 258 Human Biology (4)

EDUC 203/PSYC 203 Educational Psychology (3)

HPED 170 Concepts of Conditioning (2)

HDFS 209/PSYC 209 Life Span Development (3)

*Three credits from the following (3):*

HPED 223 Community Health Strategies (3)

HPED 224 Personal Health Strategies (3)

HPED 322 Exercise Physiology (3)

HPED 332 Teaching Adapted Physical Education (3)

HPED 423 Principles of Administration (3)

PHED 127 Aquatics (1)

**Note:** The Adventure Education major does not lead to teacher certification.

### Adventure Education Minor (18–20 credits)

AEDE 137 Challenge Course Experience (1)

AEDE 139 Wilderness Encounter (3)

AEDE 180 Wilderness First Responder (3)

AEDE 188 Challenge Course Facilitation (1)

AEDE 250 Foundations of Adventure Education (3)

AEDE 301 Leadership, Facilitation, and Group Dynamics (3)

AEDE 351 Programming and Trip Design (3)

*One to three credits from the following (1-3):*

AEDE 114 Canoeing (1)

AEDE 181 Caving (1)

AEDE 182 Rock Climbing (1)

AEDE 251 Wilderness Education Association Certification Course (3)

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## Athletic Training

Upon completion of all program requirements, students are eligible to take the Board of Certification (BOC) exam for certification. Once BOC certified, students are eligible to make application for Pennsylvania state certification.

Sports participation is allowed by approval of the Athletic Training Program Director.

Students beginning in Athletic Training go through a formal screening and application process for official admission to the major (curriculum and clinical program) after three semesters. The following criteria must be met:

1. Completion of 45 credits with a minimum GPA of 2.50. Also completing the following: required courses: ATED 102, 136, 137, 180, HPED 170, BIOL 185 and 186.
2. Documentation of 25-40 directed, observation clinical hours.
3. Submission of formal application, a letter of personal interest, an interview with faculty athletic trainers, submission of two formal recommendations, provide copies of the College Health Center's required entrance health forms (physical exam, health history and immunizations), a signature indicating the applicant understands/agrees to comply with all requirements, documentation of NATA membership, and documentation

that the student meets all Athletic Training Education Program (ATEP) technical standards.

- Students are admitted to the formal major (curriculum and clinical program) upon approval of the Faculty Athletic Trainer Selection Committee and the Department of Health and Human Performance. Entry is limited on a space-available basis and meeting of all requirements.

Students admitted into the Athletic Training Major must maintain the minimum standards required for admission to the program. Students falling below these levels will be reviewed by the Athletic Training Program Director and may be placed on probation or suspension or be dismissed from the program. Appeals to reviews may be made to the Chair of the Department of Health and Human Performance. Students must maintain a 2.50 cumulative GPA to graduate with a degree in Athletic Training.

Upon official admission to the Athletic Training Major, students are required to meet the following requirements:

- Maintain current certifications in CPR for the Professional Rescuer (American Red Cross or equivalent), A.E.D. and Disease Transmission (B.B.P.) and provide certification card copies yearly.
- Maintain current certification in Emergency Care/First Aid (American Red Cross or equivalent) and provide a current copy.
- Attend one athletic training professional convention or educational meeting each year after being officially admitted into the major.
- Pass background checks for work with youth.

#### **Athletic Training (B.A.) (74-77 credits)**

ATED 102 Introduction to Athletic Training (1)  
 ATED 136 Prevention and Risk Management (3)  
 ATED 137 Prevention and Risk Management Lab (1)  
 ATED 180 First Aid and Emergency Care (3)  
 ATED 203 Medical Terminology and Topics (2)  
 ATED 231 Injury Assessment I (2)  
 ATED 232 Injury Assessment II (2)  
 ATED 233 Injury Assessment III (2)  
 ATED 246 Practicum in Athletic Training I (2)  
 ATED 330 Pharmacology in Athletic Training (2)  
 ATED 335 Therapeutic Exercise (4)  
 ATED 337 Therapeutic Modalities and Treatment Techniques (4)  
 ATED 346 Practicum in Athletic Training II (2)  
 ATED 348 Practicum in Athletic Training III (2)  
 ATED 442 Administration of Athletic Training (3)  
 ATED 446 Collision Sport in Athletic Training (2)  
 ATED 447 Clinical Athletic Training (2)  
 ATED 449 Clinical Experience in Athletic Training (1)  
 ATED 450 Collision Sport Experience (1-3)  
 ATED 480 Senior Seminar in Athletic Training (4)  
 BIOL 185 Human Anatomy and Physiology I (4)  
 BIOL 186 Human Anatomy and Physiology II (4)  
 CHEM 105 General Chemistry I or  
 CHEM 103 Chemical Science (4)  
 HPED 170 Concepts of Conditioning (2)  
 HPED 321 Kinesiology (3)  
 HPED 322 Exercise Physiology (3)  
 HPED 360 Exercise Testing and Prescription (3)  
 NUTR 222 Nutrition Theory (3)  
 PSYC 101 Introduction to Psychology (3)

#### **Athletic Training Minor (17-19 credits)**

ATED 102 Introduction to Athletic Training (1)  
 ATED 180 First Aid and Emergency Care (3)

*Two to four credits from the following (2-4):*

ATED 136 Prevention and Risk Management (3) and  
 ATED 137 Prevention and Risk Management Lab (1)  
 HPED 236 Medical Aspects of Sport (2)

*Four credits from the following (4):*

ATED 231 Injury Assessment I (2)  
 ATED 232 Injury Assessment II (2)  
 ATED 233 Injury Assessment III (2)

ATED 335 Therapeutic Exercise (4)

ATED 337 Therapeutic Modalities and Treatment Techniques (4)

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### **Health and Exercise Science**

#### **Health and Exercise Science (B.A.) (52 – 53 credits)**

CHEM 105 General Chemistry I (4)  
 HEXS 101 Introduction to Health and Exercise Sciences (1)  
 HEXS 215 Chronic Disease and Exercise (3)  
 HEXS 412 Senior Seminar for Health and Exercise Science (3)  
 HPED 170 Concepts of Conditioning (2)  
 HPED 321 Kinesiology (3)  
 HPED 322 Exercise Physiology (3)  
 HPED 323 Exercise Physiology Lab (1)  
 PSYC 101 Introduction to Psychology (3)  
*Three to four credits from the following (3-4)*  
 BIOL 189 Genetics for Health Professions  
 CHEM 106 General Chemistry II (4)

*Three credits from the following (3):*

HEXS 225 Research Methods and Statistical Analysis (3)  
 STAT 269 Introductory Statistics (3)

*Three credits from the following (3):*

PSYC 310/HDFS 310 Child Development (3)  
 PSYC 311/HDFS 311 Adolescent Development (3)  
 PSYC 312 Adult Development (3)

*At least eight credits from the following biology courses in consultation with the student's major advisor (8)*

BIOL 160 Molecular and Cellular Biology (4)  
 BIOL 161 Animal Form and Function (3)  
 BIOL 185 Human Anatomy and Physiology I (4)  
 BIOL 186 Human Anatomy and Physiology II (4)  
 BIOL 189 Genetics for Health Profession (3)  
 BIOL 218 Health Care in the Developing World (3)  
 BIOL 258 Human Biology (4)  
 BIOL 260 Genetics and Development (3)  
 BIOL 313 Developmental Biology (3)  
 BIOL 382 Microbiology for Health Professions (4)  
 BIOL 385 Physiology (4)  
 BIOL 386 Human Anatomy (4)  
 BIOL 387 Neuroscience (3)  
 BIOL 412 Cell Biology (4)  
 BIOL 413 Molecular Biology (4)  
 BIOL 417 Molecular Genetics (4)  
 BIOL 418 Immunology (4)

*At least 12 credits from the following:*

HEXS 210 Exercise Psychology (3)  
 HEXS 220 Health Promotion Management (3)  
 HEXS 310 Elite Athletic Performance (3)  
 HEXS 315 Stress Testing and ECG Interpretation (3)  
 HEXS 330 Advanced Research Methods (3)  
 HEXS 360 Exercise Testing and Prescription (3)  
 HEXS 410 Topics in Health and Exercise Science (3)

HEXS 415 Advanced Exercise Physiology (3)  
HPED 305 Contemporary Issues in Health (3)  
HPED 423 Principles of Administration (3)

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#### **Health and Exercise Science with Pre-Physical Therapy**

##### **Concentration (72-73 credits)**

BIOL 160 Molecular and Cellular Biology (4)  
BIOL 382 Microbiology for Health Professions (4)  
BIOL 385 Physiology (4)  
BIOL 386 Human Anatomy (4)  
CHEM 105 General Chemistry I (4)  
CHEM 106 General Chemistry II (4)  
HEXS 101 Introduction to Health and Exercise Sciences (1)  
HEXS 215 Chronic Disease and Exercise (3)  
HEXS 412 Senior Seminar for Health and Exercise Science (3)  
HPED 170 Concepts of Conditioning (2)  
HPED 321 Kinesiology (3)  
HPED 322 Exercise Physiology (3)  
HPED 323 Exercise Physiology Lab (1)  
PSYC 101 Introduction to Psychology (3)

*Three credits from the following (3):*

GERO 251 Biology, Nutrition and Healthy Aging (3)  
PSYC 310/HDFS 310 Child Development (3)  
PSYC 311/HDFS 311 Adolescent Development (3)  
PSYC 312 Adult Development (3)

*Three credits from the following (3):*

HEXS 225 Research Methods and Statistical Analysis (3)  
STAT 269 Introductory Statistics (3)

*Three to four credits from the following: (3-4)*

MATH 102 Mathematics of Growth (3)  
MATH 108 Intuitive Calculus with Applications (3)  
MATH 111 Calculus I (4)

PHYS 201 Introductory Physics I (4)  
PHYS 202 Introductory Physics II (4)

*At least 12 credits from the following:*

ATED 203 Medical Terminology and Topics (2)  
ATED 231 Injury Assessment I (2)  
ATED 232 Injury Assessment II (2)  
ATED 233 Injury Assessment III (2)  
ATED 335 Therapeutic Exercise (4)  
ATED 337 Therapeutic Modalities (4)  
HEXS 210 Exercise Psychology (3)  
HEXS 220 Health Promotion Management (3)  
HEXS 310 Elite Athletic Performance (3)  
HEXS 315 Stress Testing and ECG Interpretation (3)  
HEXS 330 Advanced Research Methods (3)  
HEDS 360 Exercise Testing and Prescription (3)  
HEXS 410 Topics in Health and Exercise Science (2-3)  
HEXS 415 Advanced Exercise Physiology (3)  
HPED 305 Contemporary Issues in Health (3)  
HPED 332 Teaching Adapted Physical Education (3)

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#### **Health and Exercise Science (B.A.)/MSOT in Occupational Therapy – Thomas Jefferson University (66 credits)**

BIOL 185 Human Anatomy and Physiology I (4)  
BIOL 186 Human Anatomy and Physiology II (4)  
BIOL 189 Genetics for Health Profession (3)  
CHEM 105 General Chemistry I (4)  
HEXS 101 Introduction to Health and Exercise Science (1)  
HEXS 215 Chronic Disease and Exercise (3)  
HEXS 360 Exercise Testing and Prescription (3)  
HEXS 412 Senior Seminar for Health and Exercise Science (3)

*Six credits from the following (alternate year courses) (6):*

HEXS 210 Exercise Psychology (3)  
HEXS 310 Elite Athletic Performance (3)  
HEXS 315 Stress Testing and ECG Interpretation (3)  
HEXS 415 Advanced Exercise Physiology (3)  
HPED 170 Concepts of Conditioning (2)  
HPED 322 Exercise Physiology (3)  
HPED 329 Sport in Society (3)  
HPED 423 Principles of Administration (3)  
NUTR 222 Nutrition Theory (3)  
PSYC 101 Introduction to Psychology (3)  
PSYC 209/HDFS 209 Lifespan Development (3)  
PSYC 319 Abnormal Psychology (3)  
SOAN 101 Introduction to Sociology (3)  
STAT 269 Introduction to Statistics (3)

#### **Jefferson University Course Requirements (2 years)**

OC 302 Applied Anatomy and Kinesiology (4)  
OT 467 Health Services Administration and Professional Development (2)

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#### **Health and Exercise Science Minor (19 credits)**

HEXS 101 Introduction to Health and Exercise Science (1)  
HEXS 215 Chronic Disease and Exercise (3)  
HPED 322 Exercise Physiology (3)  
HEXS 360 Exercise Testing and Prescription (3)

*Six credits from the following (6):*

HEXS 210 Exercise Psychology (3)  
HEXS 310 Elite Athletic Performance (3)  
HEXS 315 Stress Testing and ECG Interpretation (3)  
HEXS 415 Advanced Exercise Physiology (3)

Three credits from upper level ATED, HPED, or HEXS (3)\*

\*Certain courses within this range may require additional prerequisites, which would increase the total credits required for the minor.

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#### **Health and Physical Education**

##### **Health and Physical Education with K-12 Teacher Certification (B.A.) (93-96 credits)**

ADED 137 Challenge Course Experience (1) **OR**  
ADED 188 Challenge Course Facilitation (1)  
PHED 114 Dance (1)  
PHED 118 Creative and Expressive Movement (1)  
PHED 120 Golf and Badminton (1)  
PHED 121 Softball and Soccer (1)  
PHED 122 Flag Football and Basketball (1)  
PHED 126 Tennis and Volleyball (1)  
PHED 128 Developmental Gymnastics/Recreational and Rhythmical Activities (1)

*Students must fulfill one of the following sets of requirements:*

- A. HPED 195 First Aid and CPR (1) and  
*One of the following (1-2):*  
HPED 189 Emergency Water Safety (1)  
HPED 192 Water Safety Instructor (2)  
PHED 127 Aquatics (1)
- B. Competency\* in First Aid and CPR and one of the following (1-2):  
HPED 189 Emergency Water Safety (1)  
HPED 192 Water Safety Instructor (2)  
PHED 127 Aquatics (1)
- C. HPED 193 Lifeguarding/First Aid/CPR (2) or Lifeguarding competency\*



HPED 170 Concepts of Conditioning (2)  
 HPED 223 Community Health Strategies (3)  
 HPED 224 Personal Health Strategies (3)  
 HPED 227 Foundations of Physical Education (3)  
 HPED 229 Motor Learning (3)  
 HPED 236 Medical Aspects of Sport (2)  
 HPED 305 Contemporary Issues in Health (3)  
 HPED 309 Curriculum and Instruction in Elementary Physical Education (3)  
 HPED 312 Curriculum and Instruction in Secondary Physical Education (3)  
 HPED 321 Kinesiology (3)  
 HPED 322 Exercise Physiology (3)  
 HPED 326 Curriculum and Instruction in Health Education (3)  
 HPED 329 Sport in Society (3)  
 HPED 332 Teaching Adapted Physical Education (3)  
 HPED 422 Assessment in Health and Physical Education (2)  
 HPED 423 Principles of Administration (3)  
 BIOL 258 Human Biology (4)  
 CIS 171 Problem Solving with Computers (3)  
 EDSP 207 Introduction to Special Education (3)  
 EDUC 201 Education and American Society (3)  
 EDUC/PSYC 203 Educational Psychology (3)  
 EDUC 308 Instruction and Assessment with English Language Learners (3)  
 ENGL 122 to ENGL 176 Literature meeting General Education (3)  
 MATH/CIS/STAT fulfilling General Education requirement (3)  
 PSYC 310/HDFS 310 Child Development (3)  
 TEP 210 Sophomore Field Experience (0)  
 TEP 310 Junior Field Experience (0)  
 TEP 411 Pre-Student Teaching Experience in HPE (0)

#### **Professional Semester**

HPED 433 Student Teaching Seminar (2)  
 TEP 431 HPE Student Teaching (10)

All students who pursue teacher certification must comply with established policies and procedures that regulate admissions to, retention in, and certification through Messiah College's Teacher Education Program. A complete copy of the Teacher Education Program Handbook can be found on the program homepage [www.messiah.edu/academic/teacher/teach.htm](http://www.messiah.edu/academic/teacher/teach.htm). To reach the handbook site easily, visit the Messiah homepage, click on [Academics](#), and then on [Teacher Education Program](#).

Three major criteria are evaluated for admission:

- A. GPA/academic performance
- B. character references
- C. endorsements/references

When admitted to the College, all students who intend to pursue a teacher preparation program are identified with a "pre" status. All such students are required to make formal application for admission to the Teacher Education Program by November 1 of the sophomore year.

Students apply for admission to the Professional Semester (student teaching semester) during the junior year. Students are expected to file a formal application for admission to the Professional Semester by November 1 of the academic year prior to the one in which the Professional Semester will occur.

**Health and Physical Education Studies (B.A.)** Enrollment in the Health and Physical Education Studies major is only open to students currently in the HHP-HPE teacher certification major and who: a) have junior status and b) have been recommended and approved by the HHP Department. This major cannot be student initiated. Departmental recommendation for this major is only granted when the student is not approved for enrollment in the field-based experiences the junior or senior year, the Professional Semester, or it has been determined that the student cannot successfully complete the roles and responsibilities of the student teaching experience.

This major will not lead to, nor result in, Messiah College recommending the candidate for Pennsylvania Department of Education public school teacher certification.

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### **Sport Management**

#### **Sport Management (B.A.) (57 credits)**

ACCT 141 Financial Accounting (3)  
 ACCT 242 Managerial Accounting (3)  
 BIOL 258 Human Biology (4)  
 CIS 190 Strategic Use of Information Technology (3)  
 BUSA 120 Principles of Management (3)  
 BUSA 381 Business Law I (3)  
 HPED 170 Concepts of Conditioning (2)  
 HPED 322 Exercise Physiology (3)  
 HPED 329 Sport in Society (3)  
 HPED 423 Principles of Administration (3)  
 HPED/PHED Skills Elective (1)  
 MRKT 230 Marketing Principles (3)  
 PSYC 101 Introduction to Psychology (3)  
 SPMT 110 Sport Management Careers and Content (1)  
 SPMT 210 Ethics and Law in Sport Management (3)  
 SPMT 211 Economics and Governance in Sport (3)  
 SPMT 313 Sport Facility and Event Management (3)  
 SPMT 314 Sponsorship and Marketing in Sport Management (3)  
 SPMT 391 Sport Management Practicum (3)  
 SPMT 410 Topics in Sport Management (2)  
 SPMT 411 Senior Seminar for Sport Management (3)

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#### **Sport Management Minor (18 credits)**

SPMT 110 Sport Management Careers and Content (1)  
 SPMT 210 Ethics and Law in Sport Management (3)  
 SPMT 211 Economics and Governance in Sport (3)  
 SPMT 313 Sport Facility and Event Management (3)  
 SPMT 314 Sponsorship and Marketing in Sport Management (3)  
 SPMT 391 Sport Management Practicum (3)  
 SPMT 410 Special Topics in Sport Management (2)

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# INFORMATION AND MATHEMATICAL SCIENCES

<b>Department Chair:</b>	Angela C. Hare
<b>Administrative Assistant:</b>	Jean McCauslin
<b>Professors:</b>	M. Eby, A. Hare, B. Nejme, E. Rohrbaugh, L. Widmer R. Kilmer, D. Phillippy, S. Wilcock, D. Owen
<b>Associate Professors:</b>	
<b>Assistant Professors:</b>	N. Hellgren, A. Kryemadhi, S. Weaver

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## Mission

The mission of the Department of Information and Mathematical Sciences is to educate students in excellent problem-solving skills and the quantitative analysis of mathematics, statistics, physics, and computer and information science and to challenge students to live out their faith in their vocation as they become servant leaders in society, church, and the world.

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## Majors and Minors

The Department of Information and Mathematical Sciences offers the following majors:

- Computer and Information Science (B.S.) *with concentrations in*
  - Business Information Systems
  - Computer Science
  - Software Development
  - Web Management
- Digital Media (B.A.), Mobile Application and Game Design concentration (See Interdisciplinary Majors and Minors)
- Mathematics (B.A.)
- Mathematics with Secondary Teaching Certification (B.A.)
- Physics (B.A.)/(B.S.)
- Physics with Secondary Teaching Certification (B.A.)

The Department of Information and Mathematical Sciences offers the following minors:

- Business Information Systems
- Computer Science
- Mathematics
- Physics
- Statistics

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## Computer and Information Science Major

Majors are introduced to the broad discipline of Computer and Information Science as they develop foundational competencies through a series of core courses. To complete their major, students select one or more of the following concentrations: Business Information Systems, Computer Science, Software Development, and Web Management. Students have opportunities to participate in programming competitions, service learning, summer research experiences, and professional internships.

### Computer and Information Science (B.S.) (25 credits)

- CIS 180 Introduction to Computer and Information Science (3)
- CIS 181 Computer Programming I (3)
- CIS 332 Database Concepts (3)
- CIS 381 Information Systems and Managers (3)
- CIS 411 Systems Analysis and Design Concepts (3)
- CIS 412 Systems Analysis and Design Applications (3)
- CIS 432 Database Applications (3)
- INTE 394 Internship and Monthly Class (junior or senior year) (4)

One of the following concentrations:

### Business Information Systems concentration (36 credits)

- ACCT 141 Financial Accounting (3)
- BUSA 120 Principles of Management (3)
- Three credits from the following (3):
  - BUSA 360 Operations Management (3)
  - BUSA 380 Small Business Development (3)
  - BUSA 381 Business Law I: Legal Foundation for Business (3)
- CIS 190 Strategic Use of Information Technology (3)

Three credits from the following (3):

- CIS 283 Business Systems Applications (3)
- CIS 284 Computer Programming II (3)
- CIS 291 Web Development II: Server Side (3)

Nine credits from the following (9):

- CIS xxx Elective, excluding CIS 171 (3-9)
- GIS 245 Geographic Information Systems (3)

Three credits from the following (3):

- ECON 110 Economics of Social Issues (3)
- ECON 120 Introduction to Economics - Macro Economics (3)

Three credits from the following (3):

- MATH 107 Applied Math for Management (3)
- MATH 180 Discrete Mathematics (3)

MRKT 230 Marketing Principles (3)

STAT 281 Applied Statistics for Management (3)

### Computer Science concentration (36-37 credits)

- CIS 284 Computer Programming II (3)
- CIS 384 Elements of Computer Systems (3)
- CIS 385 Data Structures and Algorithms (3)
- CIS 416 Operating Systems and Computer Architecture (3)
- CIS 482 Organization of Programming Languages (3)

Three credits from the following (3):

- CIS 418 Artificial Intelligence (3)
- CIS 487 Interactive 3D Graphics (3)

ENGR 342 Microprocessor Applications (4)

MATH 111 Calculus I (4)

MATH 180 Discrete Math (3)

Three to four credits from the following (3-4):

- MATH 211 Calculus III (4)
- MATH 261 Linear Algebra (3)
- STAT 291 Statistics for Math Sciences I (3)

Four credits from the following (4):

- PHYS 201 Introductory Physics I (4)
- PHYS 202 Introductory Physics II (4) (recommended)
- PHYS 211 General Physics I (4)
- PHYS 212 General Physics II (4)

### Software Development concentration (33-34 credits)

- CIS 191 Web Development I: Client Side (3)
- CIS 283 Business Systems Applications (3)
- CIS 284 Computer Programming II (3)
- CIS 291 Web Development II: Server Side (3)
- CIS 335 Software Engineering (3)
- CIS 385 Data Structures and Algorithms (3)
- CIS 482 Organization of Programming Languages (3)

Three credits from the following (3):

- CIS 251 Hardware and Software (3)
- CIS 384 Elements of Computer Systems (3)

Three credits from the following (3):

- CIS 415 Data Communications and Networking (3)
- CIS 418 Artificial Intelligence (3)

MATH 180 Discrete Math (3)

Three to four credits from the following (3-4):

- MATH 111 Calculus I (4)
- STAT 269 Introductory Statistics (3)
- STAT 281 Applied Statistics for Management (3)

#### **Web Management concentration (36 credits)**

Three credits from the following (3):

- ART 112 Introduction to Graphic Design Problem Solving (3)
- ART 236 Graphic Design and Visual Culture (3)
- ART 237 Typography and Visual Communication (3)

Three credits from the following (3):

- ART 211 Computer Art and Imaging (3)
- ART 312 Digital Prints (3)

ART 336 Design for New Media (3)

Three credits from the following (3):

- ART 337 Graphic Design and Professional Practice (3)
- ART 431 Motion Design: Video, Animation and Communication (3)

BUSA 120 Principles of Management (3)

BUSA 380 Small Business Development (3)

CIS 191 Web Development I: Client Side (3)

CIS 283 Business Systems Applications (3)

CIS 291 Web Development II: Server Side (3)

CIS 343 E-Commerce (3)

CIS 401 Webmasters and Servers (3)

MRKT 230 Marketing Principles (3)

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#### **Business Information Systems Minor (18 credits)**

CIS 190 Strategic Use of Information Technology (3)

CIS 381 Information Systems and Managers (3)

CIS 411 Systems Analysis and Design Concepts (3)

Nine credits from the following (9):

- CIS 181 Computer Programming I (3)
- CIS 251 Hardware and Software (3)
- CIS 283 Business Systems Applications\* (3)
- CIS 343 Introduction to E-Commerce\* (3)
- CIS 401 Webmasters and Servers\* (3)
- CIS 412 Systems Analysis and Design Applications (3)
- CIS 415 Data Communications and Networking (3)
- CIS 490 Topics in Computer and Information Science (3)

\*This course requires prerequisite(s), which may increase the total credits required for the minor.

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#### **Computer Science Minor (18 credits)**

18 credits of CIS courses, excluding CIS 171.

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### **Mathematics**

Mathematics Majors learn to appreciate the logical beauty of mathematical thought and how to use it to solve many kinds of problems. After taking the foundational courses, students choose from theoretical and applied mathematics courses as they pursue their career objectives. Through the internship program, they may gain practical experience. Graduates are prepared for employment as mathematicians in a variety of settings in industry, business, and government, and for graduate study. By taking the sequence of education courses, they can be certified to teach secondary mathematics. Qualified mathematics teachers are in demand, and the quantitative skills of the mathematics major are valued in science, industry, and business.

#### **Mathematics (B.A.) (59 credits)**

CIS 181 Computer Programming I (3)

ECON 120 Introduction to Economics – Macro Economics (3)\*

MATH 111 Calculus I (4)

MATH 112 Calculus II (4)

MATH 195 First Year Mathematics Seminar (3)

MATH 211 Calculus III (4)

MATH 261 Linear Algebra (3)

MATH 362 Algebraic Structures (3)

MATH 412 Introduction to Real Analysis (3)

MATH 494 Senior Mathematics Seminar (3)

PHYS 211 General Physics I (4)

PHYS 212 General Physics II (4)

STAT 291 Statistics for Mathematical Sciences I (3)

Three credits from the following:

CIS 284 Computer Programming II (3)

STAT 292 Statistics for Mathematical Sciences II (3)

Twelve credits from the following (12):

ENGR 365 Linear Systems (3)

STAT 3xx/4xx (3)

MATH 301 Numerical Analysis (3)

MATH 308 Differential Equations (3)

MATH 341 Mathematical Modeling (3)

MATH 382 Geometry (3)

MATH 392 History of Mathematics (3)

MATH 405 Introduction to Mathematical Research (3)

MATH 490 Topics in Mathematics (3)

MATH 491 Independent Study (1-3)

\*Students in the mathematics and mathematics with teaching certification majors are encouraged to complete the sequence ECON 120: Introduction to Economics: Macroeconomics and ECON 220: Principles of Micro Economics. The study of economics provides an excellent foundation for many careers in mathematical sciences. A double-major or minor in economics is a strong, marketable addition to the mathematics major, and either combination can be completed in 8 semesters.

#### **Mathematics with Secondary Teaching Certification (B.A.) (90 credits)**

Three credits from the following (3):

CIS 181 Computer Programming I (3)

CIS 191 Web Development I: Client Side (3)

Complete one of the following sequences (6):

1. CIS 181 Computer Programming I (3) and  
CIS 284 Computer Programming II (3)
2. CIS 181 Computer Programming I (3) and  
CIS 283 Business Systems Application (3)
3. CIS 191 Web Development I: Client Side (3) and  
CIS 291 Web Development II: Server Side (3)
4. STAT 291 Statistics for Mathematical Sciences I (3) and  
STAT 292 Statistics for Mathematical Sciences II (3)

MATH 111 Calculus I (4)

MATH 112 Calculus II (4)

MATH 195 First-Year Mathematics Seminar (3)

MATH 211 Calculus III (4)

MATH 261 Linear Algebra (3)

MATH 307 Secondary Mathematics/Physics Instruction (2)

MATH 362 Algebraic Structures (3)

MATH 382 Geometry (3)

MATH 412 Introduction to Real Analysis (3)

MATH 494 Senior Mathematics Seminar (3)

PHYS 211 General Physics I (4)  
PHYS 212 General Physics II (4)  
STAT 291 Statistics for Mathematical Sciences I (3)

*Three credits from the following:*

ENGR 365 Linear Systems (3)  
MATH 301 Numerical Analysis (3)  
MATH 308 Differential Equations (3)  
MATH 341 Mathematical Modeling (3)  
MATH 392 History of Mathematics (3)  
MATH 405 Introduction to Mathematical Research (3)  
MATH 490 Topics in Mathematics (3)  
MATH 491 Independent Study (1-3)  
Any STAT 3xx or 4xx course

EDSP 207 Introduction to Special Education (3)  
EDSP 307 Inclusion Practices (3)  
EDUC 201 Education and American Society (3)  
EDUC 203/PSYC 203 Educational Psychology (3)  
EDUC 308 Instruction and Assessment with English Language Learners (3)  
EDUC 331 Instructional Design and Assessment for Secondary Education (3)  
ENGL 122 to ENGL 176 Literature meeting General Education (3)  
TEP 210 Sophomore Field Experience (0)  
TEP 310 Junior Field Experience (0)

**Professional Semester:**

EDUC 420 Professional Issues in Education (2)  
MATH 407 Professional Issues in Secondary Mathematics Education (1)  
PSYC 311/HDFS 311 Adolescent Development (3)  
TEP 410 Secondary Pre-Student Teaching Experience (0)  
TEP 435 Student Teaching: Secondary (8)

Students who are considering secondary mathematics teaching as one of several career options in mathematical sciences are encouraged to complete an additional six credits of MATH/STAT 3xx/4xx courses. This allows you to graduate with a Mathematics degree, if you choose, while still maintaining Pennsylvania Secondary Teaching Certification.

**Mathematics Minor (20-21 credits)**

MATH 111 Calculus I (4)  
MATH 112 Calculus II (4)

*Twelve additional credits from the following (12-13)\*:*

MATH 211 Calculus III (4)  
MATH 261 Linear Algebra (3)  
MATH 270 Advanced Math for the Sciences (3)\*\* or  
MATH 308 Differential Equations (3)\*\*  
STAT 291 Statistics for Mathematical Sciences (3)  
STAT 292 Statistics for Mathematical Sciences II (3)  
ENGR 365 Linear Systems (3)  
MATH/STAT 3xx/4xx\*\* Elective (varies)

\*Certain courses within this range may require additional prerequisites, which would increase the total credits required for the minor.

\*\*Note: MATH 307, 391 and 407 do not count towards the minor. Either MATH 270 or MATH 308 will count towards the requirements, but not both.

**Note:** Students majoring in Biochemistry, Chemistry, Chemistry with Teaching Certification, Education (PreK-4), Engineering, Physics, or Physics with Teaching Certification may count MATH 111, 112 toward both their major and the mathematics minor. This is an exception to the 1/3 overlap policy.

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## Physics

The Physics Major offers students a preparation for employment in industry or graduate school in physics or related areas.

**Physics (B.A.) (60 credits)**

CHEM 105 General Chemistry (4)  
CHEM 495 Capstone Natural Sciences (3)

*Three credits from the following:*

CHEM 337 Physical Chemistry I (3)  
ENGR 371 Thermodynamics (3)  
CIS 181 Computer Programming I (3)  
ENGR 367 Electromagnetics (3)

*Three credits from the following:*

ENGR 342 Experimental Methods (3)  
STAT 291 Statistics for Mathematical Sciences (3)  
MATH 111 Calculus I (4)  
MATH 112 Calculus II (4)  
MATH 211 Calculus III (4)  
MATH 270 Advanced Math for Sciences (3)

*Three credits from the following:*

PHIL 101 Problems in Philosophy (3)  
PHIL 102 History of Philosophy (3)  
PHYS 180 Physics Exploration (2)  
PHYS 211 General Physics I (4)  
PHYS 212 General Physics II (4)  
PHYS 251 Modern Physics (4)  
PHYS 328 Mechanics (3)  
PHYS 402 Quantum Mechanics (3)  
PHYS 494 Senior Physics Seminar (3)

**Physics (B.S.)\* (67 credits)**

MATH 111 Calculus I (4)  
MATH 112 Calculus II (4)  
MATH 211 Calculus III (4)  
PHYS 180 Physics Exploration (2)  
PHYS 211 General Physics I (4)  
PHYS 212 General Physics II (4)

*The following courses are taken at the Philadelphia Campus in conjunction with Temple University\*:*

MATH 3041 Differential Equations (3)  
PHYS 2101 Classical Mechanics (3)  
PHYS 2501 Computing for Scientists (3)\*  
PHYS 2502 Mathematical Physics (4)  
PHYS 2701 Introduction to Modern Physics (4)  
PHYS 3101 Analytical Mechanics (3)  
PHYS 3301 Electricity and Magnetism (4)  
PHYS 3302 Classical Electromagnetism (3)  
PHYS 3701 Introduction to Quantum Mechanics (3)  
PHYS 4101 Thermodynamics and Kinetic Theory (3)  
PHYS 4302 Optics (3)  
PHYS 4796 Experimental Physics (3)

*Six additional credits from the following (6):*

PHYS 4301 Electronics (3)  
PHYS 4701 Introduction to Solid State Physics (3)  
PHYS 4702 Introduction to Atomic, Nuclear, and Particle Physics (3)

\*Currently, the major requires coursework at the Messiah College Philadelphia Campus, which will no longer be an option after 2013-2014. The curricular requirements will be updated; contact your academic advisor for more information.

Students may complete a double major in Mathematics and Physics (BA) by completing all courses listed in each major, subject to the following criteria. This is an exception to the standard college course overlap policy.

For a double-major in MATH and PHYS (BA), a student must:

- 1) Complete MATH 261 and MATH 308 in lieu of MATH 270
- 2) Complete STAT 291 (not ENGR 342)
- 3) The student may choose one of {MATH 494, PHYS 494} and is not required to complete both.

#### **Physics with Secondary Teaching Certification (B.A.) (96 credits)**

CHEM 105 General Chemistry I  
CHEM 495 Capstone Natural Sciences (3)  
ENGR 367 Electromagnetics (3)  
ENGR 371 Thermodynamics (3)

*Three credits from the following:*

ENGR 242 Experimental Methods (2)  
STAT 291 Statistics for Mathematical Sciences (3)  
MATH 111 Calculus I (4)  
MATH 112 Calculus II (4)  
MATH 211 Calculus III (4)  
MATH 270 Advanced Math for the Sciences (3)  
PHYS 180 Physics Exploration (2)  
PHYS 211 General Physics I (4)  
PHYS 212 General Physics II (4)  
PHYS 251 Modern Physics (4)  
PHYS 328 Mechanics (3)  
PHYS 307 Secondary Mathematics/Physics Instruction (2)  
PHYS 402 Quantum Mechanics (3)  
PHYS 407 Professional Issues in Physics Education (1)  
PHYS 494 Senior Physics Seminar (3)  
CIS 181 Computer Programming I (3)  
EDSP 207 Introduction to Special Education (3)  
EDSP 307 Inclusion Practices (3)  
EDUC 201 Education and American Society (3)  
EDUC 203/PSYC 203 Educational Psychology (3)  
EDUC 308 Instruction and Assessment with English Language Learners (3)  
EDUC 331 Instructional Design and Assessment for Middle and Secondary Grades (3)  
ENGL 122 - ENGL 176 Literature meeting General Education (3)  
*Three credits from the following:*  
PHIL 101 Problems in Philosophy (3)  
PHIL 102 History of Philosophy (3)  
TEP 210 Sophomore Field Experience (0)  
TEP 310 Junior Field Experience (0)  
**Professional Semester:**  
EDUC 420 Professional Issues in Education (2)  
MATH 407 Secondary Mathematics Curriculum and Instruction (1)  
PSYC 311/HDFS 311 Adolescent Development (3)  
TEP 410 Secondary Pre-Student Teaching Experience (0)  
TEP 435 Student Teaching: Secondary (8)

**Note:** Students who are considering secondary physics teaching as one of several career options in Information and Mathematical Sciences are encouraged to complete an additional six credits of ENGR 367 and ENGR 371. This allows you to graduate with a Physics degree, if you choose, while still maintaining Pennsylvania Secondary Teaching Certification.

#### **Physics Minor (21 credits)**

Students interested in the physics minor should be aware that 12-15 credits of mathematics courses, (or transfer/AP equivalents), are prerequisite to courses in the physics minor. These courses are MATH 111, MATH 112, one of {MATH 210, MATH 211}, and MATH 270. Moreover, depending on the elective courses chosen to complete this minor, additional prerequisites are required.

PHYS 211 General Physics I (4)  
PHYS 212 General Physics II (4)  
PHYS 251 Modern Physics (4)

*Nine credits from the following:*

CHEM 337 Physical Chemistry I (3)  
ENGR 367 Electromagnetics (3)  
ENGR 371 Thermodynamics (3)  
PHYS 328 Mechanics (3)  
PHYS 402 Quantum Mechanics (3)

**Note:** Students in the majors of Biochemistry, Chemistry, Chemistry with Teaching Certification, Engineering, Mathematics, and Mathematics with Teaching Certification may count PHYS 211, 212 toward both their major and the Physics minor, as well as prerequisite courses in mathematics and chemistry that are not listed for the minor. This is an exception to the College "1/3 overlap" policy.

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### **Statistics**

Students completing a minor in statistics meet the stated requirements for entry-level statistical positions in business, government, and industry. Statistics Minors are also well prepared to pursue study in a quality graduate program in statistics.

#### **Statistics Minor (18 credits)**

STAT 291 Statistics for Mathematical Sciences I (3)  
STAT 292 Statistics for Mathematical Sciences II (3)  
12 additional credits of STAT 3xx/4xx courses\*

\*Certain courses within this range may require additional prerequisites, which would increase the total credits required for the minor.

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## **NURSING**

**Department Chair:** Carolyn L. Kreamer  
**Administrative Assistant:** Beth Aumen  
**Professor:** C. Kreamer  
**Associate Professors:** H. Lutz, W. Thuma-McDermond, A. Woods, L. Zinsmeister  
**Associate Professors (Clinical Track):** M. Derr, P. Linstedt, D. Loop  
**Assistant Professor:** T. Jankouskas  
**Assistant Professor (Clinical Track):** K. Slabaugh

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### **Majors**

The Department of Nursing offers the Nursing (B.S.N.) major. The baccalaureate program at Messiah College is accredited by the Commission on Collegiate Nursing Education ([www.aacn.nche.edu/ccne-accreditation](http://www.aacn.nche.edu/ccne-accreditation)).

### **Mission**

The mission of the Department of Nursing at Messiah College is to prepare the beginning professional nurse by providing basic professional education from a Christian worldview and within the context of a liberal education. The distinctives of a Messiah College nurse include commitment to academic excellence, service to others

with insight and creativity, compassion through cultural humility and caring from a Christian worldview.

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## Program Options

The major is open to all individuals who are seeking their initial or beginning education in professional nursing (BSN). There is no option for individuals who have a license as a Registered Nurse to complete the BSN.

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## Program Goals

1. Prepare beginning professional nurses to provide wholistic nursing care to persons, families and communities.
2. Provide an environment in which students are encouraged to develop and integrate a dynamic Christian worldview into their personal and professional lives.
3. Provide an educational foundation for graduate study for students.
4. Provide an environment for faculty that encourages effective teaching, scholarship, service and practice.

The philosophy of the Department of Nursing is consistent with the Mission, Foundational Values, and College-Wide Educational Objectives of Messiah College. Specifically, the department philosophy reflects commitment to liberal education, leadership for quality care, patient safety, scholarship for evidence based practice, information management and patient care technology, health care policy, finance, and regulatory environments, inter-professional communication, health promotion, professionalism and professional values for the preparation of the baccalaureate generalist professional nurse as set forth by the American Association of Colleges of Nursing (2008) in *The Essentials of Baccalaureate Education for Professional Nursing Practice*. Concepts from Neuman Systems Model are an integral part of the process of care in the clinical nursing courses. Central to and informing both the nursing program and the curriculum is the Christian worldview with its affirmation about God, humanity, and culture as understood from scripture and throughout history. Consistent with the Messiah College philosophy, the nursing faculty and students seek to integrate the practice of nursing with the belief that God is the source of all truth and the One who created persons to glorify God within their environment and society. Clinical nursing courses include experiences in college laboratories, in acute and chronic care settings, and in the community at large in the South Central Pennsylvania area, as well as in some selected international settings for students meeting special application standards. Non-clinical nursing courses provide students the opportunity to expand their knowledge and skills in preparation for their various professional roles and responsibilities.

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## Admission to the Nursing Major

Students are directly admitted to the nursing program but must meet progression criteria to advance in the nursing program and into clinical courses. Clinical courses are taught in a specific, progressive sequence and students must meet progression criteria to enroll in clinical courses according to that sequence. Clinical course size is limited and enrollment in clinical courses is competitive according to academic performance and other personal criteria. The following are necessary to enroll in the nursing clinical courses:

1. The student must have an **overall GPA of 3.00** and must have completed all stated prerequisites to **NURS 210 and NURS**

**211 with an earned prerequisite GPA of 2.70.** The achievement of a “C” or higher is required in all prerequisite and support courses to the major. Prerequisite and support courses include:

BIOL 185/BIOL 186 Anatomy and Physiology I and II\*  
BIOL 189 Genetics for Health Professions  
BIOL 382 Microbiology for Health Professions  
CHEM 103 Chemical Science\*  
NURS 203 Historical and Conceptual Basis for Nursing\*  
NUTR 222 Nutrition Theory  
PSYC 209/HDFS 209 Life Span Development\*  
SOAN 101 Introduction to Sociology and/or PSYC 101  
Introduction to Psychology and/or HDFS 101  
Foundations of Marriage and Family\*  
STAT 269 Introductory Statistics

\*Designates the prerequisite courses to NURS 210 and NURS 211 that warrant a prerequisite GPA of 2.70 and must be completed prior to clinical courses.

Transfer students’ decisions will be made on an individual basis. Preference for enrollment in clinical courses will be given to students who have taken the majority of their prerequisite courses at Messiah College.

2. Enrollment in clinical nursing courses requires a positive recommendation of each student applicant from the nursing faculty based on their professional judgment regarding the student’s suitability for progression to clinical nursing courses.
3. The student must receive satisfactory criminal history background checks. (See policy “Criminal History Background Checks” contained within the Code of Conduct.)
4. The student is expected to perform the same **“essential functions of the employment position”** as licensed registered nurses. (See policy “Performance and Essential Functions of Nursing.”)
5. The student’s moral and professional behavior must be consistent with the Pennsylvania Code of Professional and Vocational Standards, the National Student Nurses Association Code of Academic and Clinical Conduct and the Messiah College Department of Nursing’s Document on Good Moral Character and Infractions. **Failure to demonstrate compliance with any of the aforementioned codes may result in denial of enrollment in clinical nursing courses.** (See policy “Code of Conduct.”)
6. **Transfer students:**

*Internal transfer students applying to the nursing major:*

- a. The student must meet with the Chairperson of the Department of Nursing or a designated faculty member to review the Nursing Curriculum Plan of Study.
- b. The student must complete a change of major form through the Registrar’s Office.
- c. Upon enrollment in the nursing major, internal transfer students must meet the admission criteria as previously stated in Nos. 1 to 5 above.

*External transfer students applying to the nursing major:*

- a. Students must apply to the College by April 15 (fall admission) and October 15 (spring admission) and meet all College admission criteria prior to the nursing admission review process.
- b. Students transferring from a college or university other than Messiah College must have an earned **cumulative GPA of 3.30** to be admitted to Messiah College as a nursing major.

- c. Depending upon the student's type and number of transferred courses, it may take up to an additional four years to complete the nursing program.
- d. The achievement of a "B" or higher is required in all equivalent prerequisite courses in the major. Prerequisite courses include:  
BIOL 185/BIOL 186 Anatomy and Physiology I and II  
BIOL 189 Genetics for Health Professions  
BIOL 382 Microbiology for Health Professions  
CHEM 103 Chemical Science  
NURS 203 Historical and Conceptual Basis for Nursing  
NUTR 222 Nutrition Theory  
PSYC 209/HDFS 209 Life Span Development  
SOAN 101 Introduction to Sociology and/or PSYC 101 Introduction to Psychology and/or HDFS 101 Foundations of Marriage and Family  
STAT 269 Introductory Statistics
- e. Transfer students applying to the nursing major are notified of acceptance upon completion of the application review process. Notification of acceptance into the nursing major will occur on an ongoing basis.
- f. Upon enrollment in clinical courses transfer students must meet the criteria as previously stated in Nos. 1 to 5 above.

*External transfer students who have completed any courses with a nursing designation at another college or university:*

- a. Students must apply to the College by April 15 (fall admission) and October 15 (spring admission) and meet all College admission criteria prior to the nursing admission review process.
- b. Students transferring from a college or university other than Messiah College must have an earned cumulative GPA of 3.30 to be admitted to Messiah College as a nursing major.
- c. The achievement of a "B" or higher is required in all equivalent prerequisite courses to the major. Prerequisite courses include:  
BIOL 185/BIOL 186 Anatomy and Physiology I and II  
BIOL 189 Genetics for Health Professions  
BIOL 382 Microbiology for Health Professions  
CHEM 103 Chemical Science  
NURS 203 Historical and Conceptual Basis for Nursing  
NUTR 222 Nutrition Theory  
PSYC 209/HDFS 209 Life Span Development  
SOAN 101 Introduction to Sociology and/or PSYC 101 Introduction to Psychology and/or HDFS 101 Foundations of Marriage and Family  
STAT 269 Introductory Statistics
- d. Students applying directly to the first clinical nursing course must have transcripts and descriptions of previous course content submitted to the Department of Nursing Admission and Progression Committee by November 15. Students interested in NURS 210 and NURS 211 placement must have completed at least 42 college credits prior to enrollment. The following prerequisite courses or their equivalents must be included in these credits:  
CHEM 103 Chemical Science  
BIOL 185/BIOL 186 Anatomy and Physiology I & II  
NURS 203 Historical and Conceptual Basis for Nursing  
PSYC 209/HDFS 209 Life Span Development  
SOAN 101 Introduction to Sociology and/or PSYC

## 101 Introduction to Psychology and/or HDFS 101 Foundations of Marriage and Family

- e. Admission decisions for junior and senior placement are made on an individual basis upon review of college course work and space available in clinical nursing courses. Students applying to the nursing major at junior or senior levels must have transcripts and descriptions of previous nursing course content submitted to the Department of Nursing Admission and Progression Committee by May 15 (fall admission) and November 15 (spring admission).

Applicants to the first clinical nursing course are given written notification of the admission decision in January.

Prior to enrollment in clinical nursing courses, all students are required to obtain and maintain the following:

1. A physical examination
2. Specified immunizations
3. Current Basic Life Support (BLS) certification from American Heart Association Health Care Provider course. CPR certification from any other organization WILL NOT be accepted.
4. Annual criminal history background checks
5. Drug screening
6. Health insurance coverage

Students must provide their own transportation for clinical experiences beginning with the first clinical nursing courses.

Upon graduation, employment opportunities are varied. Graduates are prepared to be employed as entry-level professional nurses in acute care hospitals, long-term or extended-care nursing homes, community home health agencies, international Christian missions, and public health and government agencies.

The program is approved by the State Board of Nursing of Pennsylvania and accredited by the Commission on Collegiate Nursing Education.

### Registered Nurse Licensure

Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN®) and upon passing the examination may be a registered nurse in any state or territory in the United States.

It is the graduate's obligation and responsibility to take and pass the NCLEX-RN® following the completion of the nursing program. The Department of Nursing administers a practice examination for the NCLEX-RN® in the senior year of the program. Students are counseled regarding preparation for the NCLEX-RN® on the basis of the results of the practice examination and their total academic performance. Students must ultimately take the responsibility for and make their own decisions regarding their methods of preparation for the NCLEX-RN®.

The Professional Nursing Law for the Commonwealth of Pennsylvania (P.L. 409, No. 109, Section 6) states the following:

"The Board (State Board of Nursing) shall not issue a license or certificate to an applicant who has been convicted of a felonious act prohibited by the act of April 14, 1972 (P.L. 233, No. 64), known as "The Controlled Substance, Drug, Device and Cosmetic Act," or convicted of a felony relating to a controlled substance in a court of law of the United States or any other state, territory or country unless:

1. at least ten (10) years have elapsed from the date of the conviction;
2. the applicant satisfactorily demonstrates to the Board that he has made significant progress in personal rehabilitation since the conviction such that licensure of the applicant should not be expected to create a substantial risk of harm to the health and safety of patients or the public or a substantial risk of further criminal violations; and
3. the applicant otherwise satisfies the qualifications contained in or authorized by this act.

As used in this subsection the term “convicted” shall include a judgment, an admission of guilt or a plea of “nolo contendere.”

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## **BSN Program**

### **Nursing (B.S.N.) (87 credits)**

NURS 203 Historical and Conceptual Basis for Nursing (3)  
 NURS 210 Health Assessment (3)  
 NURS 211 Foundations of Nursing Practice (3)  
 NURS 303 Pathophysiology (3)  
 NURS 304 Pharmacology (3)  
 NURS 305 Nursing Research I (2)  
 NURS 310 Nursing Care of the Childbearing Family (4)  
 NURS 311 Nursing Care of Adults and Older Adults I (4)  
 NURS 312 Nursing Care of Adults and Older Adults II (4)  
 NURS 313 Nursing Care of Infants, Children, and Adolescents (4)  
 NURS 405 Nursing Research II (2)  
 NURS 410 Psychiatric/Mental Health Nursing (4)  
 NURS 411 Nursing Care of the Critically Ill (4)  
 NURS 412 Community Health Nursing (4)  
 NURS 413 Leadership in Nursing (3)  
 NURS 495 Senior Practicum (3)  
 NURS 496 Senior Seminar (3)

### **Required Supporting Courses**

BIOL 185, 186 Human Anatomy and Physiology I, II (4, 4)  
 BIOL 189 Genetics for Health Professions (3)  
 BIOL 382 Microbiology for Health Professionals (4)  
 CHEM 103 Chemical Science (4)  
 NUTR 222 Nutrition Theory (3)

*Three credits from the following:*

HDFS 101 Foundations of Marriage and Family (3)  
 PSYC 101 Introduction to Psychology (3)  
 SOAN 101 Introduction to Sociology (3)  
 PSYC 209/HDFS 209 Life Span Development (3)  
 STAT 269 Introductory Statistics (3)

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## **NUTRITION AND DIETETICS**

**Department Chair:** Kathryn A. Witt  
**Administrative Assistant:** Cynthia Steffan  
**Associate Professors:** A. Porto, K. Witt

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### **Majors and Minors**

The Department of Nutrition and Dietetics offers the following majors:

Nutrition and Dietetics (B.S.)  
 Nutrition and Food Services Management (B.A.)  
 Nutrition Science (B.A.)

The Department of Nutrition and Dietetics offers a minor in Food and Nutrition.

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### **Program Options**

The Department of Nutrition and Dietetics is committed to producing graduates whose professional practices are grounded in Biblical principles and supported by a solid foundation of nutrition science. Through cooperation with the chemistry, biology, management and business and dining services departments at Messiah College, as well as local nutrition and dietetics practitioners, Messiah is one of the few Christian Colleges able to offer students excellent preparation for careers in nutrition science, public health, dietetics practice, and food service. The Department of Nutrition and Dietetics offers three majors. The Nutrition and Dietetics major is designed for students whose primary goal is providing food and nutrition care, especially as a Registered Dietitian, dietetic technician or public health nutrition educator. The Nutrition Science major is designed for students who wish to build a foundation in nutrition science for graduate study in nutrition, public health, or medical school. The Nutrition and Food Services Management Major is designed for students who aim to work in institutional food service or in a nutrition or food-related business. Hands-on learning is emphasized throughout the curriculum. Students in Nutrition and Dietetics and Nutrition Science majors design and carry out a food or nutrition related research project; and students in the Nutrition and Food Services Management major complete an internship experience in a food service setting. In addition to these majors, the department offers a Foods and Nutrition minor and a non-majors nutrition course which meets the College general education laboratory science requirement.

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### **Nutrition and Dietetics Major**

Dietetics is a profession concerned with the science and art of human nutritional care. Students study a wide variety of subjects, including anatomy and physiology, chemistry and biochemistry, food science and technology, nutrition science, management and business, education and counseling, and medical nutrition. In addition to course work, students are strongly encouraged to obtain work or volunteer experience in nutrition and dietetics. Students who wish to explore a particular area of nutrition and dietetics practice further, may choose to complete a practicum in nutrition and dietetics. In the past, students have completed practica in hospitals, nursing homes, and community health agencies.

Many jobs in nutrition care require that an individual be credentialed as a Registered Dietitian (R.D.). To earn the R.D. credential an individual must complete a three step process: 1)



Complete a minimum of a bachelor's degree at a US regionally accredited college or university and course work approved by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). Students interested in becoming registered dietitians should be careful to enroll in a school with a ACEND -accredited nutrition or dietetics major. 2) Complete a ACEND-accredited dietetic internship. Typically these programs are offered by health care facilities, community agencies, foodservice corporations, or educational institutions and are 6 - 12 months in length. 3) Pass a national examination administered by the Commission on Dietetic Registration (CDR). Once the R.D. credential has been earned, continuing professional educational requirements must be met to maintain it. For additional information on dietetics education contact ACEND at Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2000, Chicago, Illinois 60606-6995, Phone: 312-899-0040 Ext. 5400, or [www.eatright.org](http://www.eatright.org).

The Messiah College Nutrition and Dietetics major is approved by ACEND as a Didactic Program in Dietetics and enables students to complete the first step towards becoming a Registered Dietitian. Nutrition and Dietetics graduates who wish to become Registered Dietitians apply to an ACEND-accredited dietetic internship (Step 2). After successful completion of an ACEND-accredited dietetic internship they are eligible to take the national registration exam (Step 3).

Nutrition and Dietetics majors who do not begin ACEND-accredited dietetic internships after graduation are employable as dietetic technicians in health care institutions and businesses, nutrition counselors in community nutrition programs, and food service managers in health care institutions, schools, and industry. Additionally, graduates may choose to continue their education by applying to graduate school in areas such as nutrition science, nutrition education, or international nutrition.

The Department of Nutrition and Dietetics also offers a verification program for individuals who already have at least a bachelor's degree from an accredited institution but have not taken all of the course work required by ACEND. Individuals seeking to obtain verification of the ACEND Didactic Program in Dietetics academic requirements complete an individualized plan of study based on evaluation of their academic transcripts, including at least 18 credits in Food and Nutrition courses at Messiah College.

Individuals who complete the verification program requirements are eligible to apply for ACEND-accredited supervised practice programs.

In order to progress into NUTR 410, 411, and 425 student must have completed the following courses with no grades lower than a C- in each and an average GPA in them of 2.5 (2.75 if more than one of these courses is transferred to Messiah): CHEM 105, 106, and 204 or 309/310, BIOL 185, NUTR 121 and 222.

**Repeat Policy:** One course from the list may be repeated one time. An attempt at a course will include all letter grades as well as W, WP, and WF. When extenuating circumstances arise (i.e. significant illness or death in the family), students may appeal this policy by submitting a written letter explaining the rationale for the exception to the DPD Director. If the appeal is denied, the department decision may be appealed to the dean of the School of Science, Engineering, and Health.

#### **Nutrition and Dietetics (B.S.) (70 credits)**

BIOL 185 Human Anatomy and Physiology I (4)  
 BIOL 186 Human Anatomy and Physiology II (4)  
 BIOL 382 Microbiology for Health Professions (4)  
 BUSA 120 Principles of Management (3)  
 CHEM 105, 106 General Chemistry I, II (4, 4)  
 CHEM 204 Introduction to Organic Chemistry (4)  
 NUTR 099 Opportunities in Nutrition, Food Service, and Dietetics (1)  
 NUTR 121 Food and Food Science (3)  
 NUTR 222 Nutrition Theory (3)  
 NUTR 322 Nutrition Through the Life Cycle (3)  
 NUTR 331 Advanced Food Science and Technology (3)  
 NUTR 341 Food Service (4)  
 NUTR 352 Community Nutrition (3)  
 NUTR 410 Nutrition Education and Counseling (3)  
 NUTR 411, 412 Medical Nutrition Therapy I, II (3, 3)  
 NUTR 425 Nutrient Metabolism and Research Methods I (4)  
 NUTR 426 Nutrient Metabolism and Research Methods II (3)  
 NUTR 493 Senior Seminar in Nutrition, Food Service, and Dietetics (1)  
 PSYC 101 Introduction to Psychology (3)  
 STAT 269 Introductory Statistics (3)

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#### **Nutrition and Food Services Management Major**

The Nutrition and Food Service Management Major is designed to prepare students to manage institutional and business settings related to nutritional and food service. Potential employment setting for student in this major include institutional food service (nursing homes, hospitals, schools) as well as food companies and small businesses related to nutrition and food. Students study the nutrient needs and challenges for people of all ages, food preparation, quantity food production, management, and marketing. All students in this major complete an internship experience in institutional food service or a food business. This major does not satisfy ACEND academic requirements.

#### **Nutrition and Food Services Management (B.A.) (65-69 credits)**

NUTR 099 Opportunities in Nutrition, Food Service, and Dietetics (1)  
 NUTR 121 Food and Food Science(3)  
 NUTR 222 Nutrition Theory (3)  
 NUTR 322 Nutrition through the Life Cycle (3)  
 NUTR 331 Advanced Food Science and Technology (3)  
 NUTR 341 Food Service (4)  
 NUTR 413 Foods for Medical Nutrition (1)  
 NUTR 493 Senior Seminar in Nutrition, Food Service, and Dietetics (1)  
 ACCT 141 Financial Accounting (3)  
*Three credits from the following:*  
     ACCT 242 Managerial Accounting (3)  
     ECON 220 Principles of Microeconomics (3)  
 BUSA 120 Principles of Management (3)  
 BUSA 305 Writing for Business (3)  
*Three credits from the following:*  
     BUSA 381 Business Law I (3)  
     MRKT 333 Consumer Behavior (3)  
*Four credits from the following:*  
     CHEM 103 Chemical Science (4)  
     CHEM 105 General Chemistry I (4)  
 CIS 190 Strategic Use of Information Technology (3)  
 ECON 120 Introduction to Economics – Macro Economics (3)

HRM 301 Human Resource Management (3)

*Three to six credits from the following:*

INTE 391 Internship (3)

INTE 394 Internship and Monthly Class (4-6)

INTE 395 Internship and Weekly Class (6)

*Three to four credits from the following:*

MATH 107 Applied Math for Management (3)

MATH 108 Intuitive Calculus with Applications (3)

MATH 111 Calculus I (4)

MRKT 230 Marketing Principles (3)

*Three credits from the following:*

STAT 281 Applied Statistics for Management (3)

STAT 269 Introductory Statistics (3)

*Six credits selected from:*

CIS 381 Information Systems and Managers (3)

300- or 400-level ACCT, BUSA, ECON, HRM, IBI, LEAD or

MRKT courses (6)

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## Nutrition Science Major

The Nutrition Science major is designed for strong science students who wish to attend graduate or professional school to prepare for careers in nutrition research, public health, or medicine. Students study anatomy and physiology, general chemistry, organic chemistry, biochemistry, statistics, basic food science, and nutrition science. The Nutrition Science major does not satisfy the ACEND academic requirements. Nutrition Science majors who wish to pursue dietetic registration should take NUTR 331 as a part of the major, PSYC 101 as a social science general education course, and the following additional courses: BUSA 120, NUTR 352, NUTR 341, NUTR 411, NUTR 410, NUTR 412. Students who wish to use the Nutrition Science major as preparation for medical school should take BIOL 385/386 and PHY 211 and take PHY 212 as an elective.

In order to progress into NUTR 410, 411, and 425 student must have completed the following courses with no grades lower than a C- in each and an average GPA in them of 2.5 (2.75 if more than one of these courses is transferred to Messiah): CHEM 105, 106, and 204 or 309/310, BIOL 185, NUTR 121 and 222.

### Nutrition Science (B.A.) (64-68 credits)

NUTR 099 Opportunities in Nutrition, Food Service, & Dietetics (1)

NUTR 121 Food and Food Science (3)

NUTR 222 Nutrition Theory (3)

NUTR 322 Nutrition through the Life Cycle (3)

*Three to four from the following (3-4):*

NUTR 331 Advanced Food Science and Technology (3)

PHYS 211 General Physics I (4)

NUTR 425 Nutrient Metabolism and Research Methods I (4)

NUTR 426 Nutrient Metabolism and Research Methods II (3)

NUTR 493 Senior Seminar in Nutrition, Food Service, and Dietetics (1)

*Eight credits from the following (8):*

BIOL 185 Human Anatomy and Physiology I (4) **and**

BIOL 186 Human Anatomy and Physiology II (4)

**or**

BIOL 385 Physiology (4) **and**

BIOL 386 Human Anatomy (4)

BIOL 382 Microbiology for Health Professions (4)

CHEM 105, 106 General Chemistry I, II (4, 4)

CHEM 309, 310 Organic Chemistry I, II (4, 4)

CHEM 410 Biochemistry I (4)

CHEM 412 Biochemistry II (4)

MATH 111 Calculus I (4)

*Three to six credits from the following (3-6):*

STAT 269 Introduction to Statistics (3)

STAT 291, 292 Statistics for Mathematical Sciences I, II (3, 3)

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## Foods and Nutrition Minor

The Foods and Nutrition Minor is designed to enhance the nutrition, food science, or food service expertise of students majoring in related fields. The minor does not satisfy the Commission on Accreditation for Dietetics Education academic requirements, and does not provide adequate nutrition background for jobs in nutrition care.

In order to progress into NUTR 410, 411, and 425 student must have completed the following courses with no grades lower than a C- in each and an average GPA in them of 2.5 (2.75 if more than one of these courses is transferred to Messiah): CHEM 105, 106, and 204 or 309/310, BIOL 185, NUTR 121 and 222.

### Foods and Nutrition Minor (19-20 credits)

CHEM 105 General Chemistry I **or**

CHEM 103 Chemical Science (4)

NUTR 121 Food and Food Science (3)

NUTR 222 Nutrition Theory (3)

NUTR 322 Nutrition through the Life Cycle (3)

*Plus six to seven credits selected from the following:*

NUTR 331 Advanced Food Science and Technology (3)

NUTR 341 Food Service (4)

NUTR 352 Community Nutrition (3)

NUTR 425 Nutrient Metabolism and Research Methods I (4)

NUTR 426 Nutrient Metabolism and Research Methods II (3)

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## PRE-HEALTH PROGRAMS

Coordinator of Pre-Health Professions Advising: Martha S. Smith

### Pre-Health Programs

Pre-Chiropractic

Pre-Med (Allopathic - M.D.)

Pre-Occupational Therapy (4 yr.)

Pre-Optometry

Pre-Pharmacy (3+ yr.)

Pre-Physician Assistant

Pre-Public Health

Pre-Dentistry

Pre-Med (Osteopathic - D.O.)

Pre-Occupational Therapy (3+)

Pre-Pharmacy (4 yr.)

Pre-Physical Therapy

Pre-Podiatry

Pre-Veterinary

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### Pre-Medical and Pre-Allied Health Programs

Messiah College has an excellent record of preparing students for lives of service and leadership in the healthcare professions. Students planning to enter the medical field often choose to major in biology, biochemistry, molecular biology, or chemistry. However, with careful course planning, some students choose to major in other disciplines and concurrently complete the requisite science courses. Pre-health students are served by both a faculty academic advisor and a health professions advisor. Faculty academic advisors help students plan their course work to meet requirements in general education and their major discipline. In a complementary manner, the Coordinator of Pre-Health Professions Advising works closely with students on issues related to their successful application to medical/allied health school.

Students typically begin their association with the Coordinator of Pre-Health Professions Advising during their first semester at

Messiah College. They meet regularly with the Coordinator through graduation, and in some cases even after graduation, to carefully plan their curricular and co-curricular activities and to prepare a professional school application portfolio. The Coordinator of Pre-Health Professions Advising, the Pre-Health Professions Advising Committee, the Medical Awareness Society (pre-med club), and many other campus support programs offer assistance and enrichment in all aspects of the medical/allied health school preparation and application process. From academic support for achieving and maintaining a competitive GPA, to engaging in a wide variety of co-curricular and medically-related experiences and research programs, to successfully preparing for required admission tests, Messiah College offers an integrated experience that has proven successful in helping our students gain admission to the medical program of their choice.

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### **Pre-Physical Therapy Program**

Physical therapists must complete an accredited post baccalaureate doctoral degree graduate program to be eligible for licensing and to practice their profession. Students pursuing a career in physical therapy have several options available to them at Messiah College to prepare and compete for admission to such programs. Students may enroll in the pre-physical therapy concentration within the Health and Exercise Science major offered in the Department of Health and Human Performance for a curriculum that is tailored to meet the admission requirements of most graduate physical therapy programs. Alternatively, students may major in another discipline, such as biology or psychology, and work with their academic advisor and pre-health professions advisor to carefully choreograph their schedule to ensure that they satisfy their major and professional school requirements. Admission to physical therapy graduate programs is competitive, and Messiah College students have been very successful in gaining admission to top-rated programs including Arcadia University, where our graduates can attend through our articulation agreement with Arcadia's DPT program.

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**Biopsychology (B.S.)/Occupational Therapy (MSOT) Thomas Jefferson University Collaborative Master's Program.** Messiah College offers an accelerated 3-2 program in conjunction with Thomas Jefferson University. Participating students complete three years of study at Messiah College in biopsychology and two years at Thomas Jefferson University to earn an undergraduate degree in Biopsychology (B.S.) and a MSOT in Occupational Therapy at Thomas Jefferson University.

**Health and Exercise Science (B.A.)/Occupational Therapy (MSOT) Thomas Jefferson University Collaborative Master's Program.** Messiah College offers an accelerated 3-2 program in conjunction with Thomas Jefferson University. Participating students complete three years of study at Messiah College in Health and Exercise Science and two years at Thomas Jefferson University to earn an undergraduate degree in Health and Exercise Science (B.A.) and a MSOT in Occupational Therapy at Thomas Jefferson University.

**Biochemistry (B.A.)/Doctor of Pharmacy (PharmD) – University of the Sciences in Philadelphia Program.** Messiah College offers an accelerated 3-4 program in conjunction with the University of the Sciences in Philadelphia. Participating students complete three years of study at Messiah College and four years at the University of the Sciences in Philadelphia to earn an undergraduate degree in Biochemistry (B.A.) and a Doctor of Pharmacy (PharmD) at University of the Sciences in Philadelphia.

# COURSE OFFERINGS

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## **ACCT 141 Financial Accounting (3)**

Accounting procedures, use of special journals, general and subsidiary ledgers, preparation of financial statements, and contents of accounts and external reporting concepts.

## **ACCT 242 Managerial Accounting (3)**

Uses information gathered from accounting records to prepare internal reports, compile analyses, and prepare recommendations to assist management in control and decision making. Prerequisite: ACCT 141.

## **ACCT 247 Basic Income Tax (3)**

Provisions of the Internal Revenue Code and the revenue codes of the state of Pennsylvania and various local governments as they relate to low income, elderly, and handicapped individuals are presented. Part of the course requirements include the preparation of tax returns during the tax filing season.

## **ACCT 301 Intermediate Accounting I (3)**

Critical study of generally accepted accounting principles as they relate to financial reporting, including theoretical foundations, accounting model and information processing, financial statements, future and present value, and inventory management and valuation. A component of this course is dedicated to learning writing and presentation skills related to the practice of accounting. Prerequisite: ACCT 242.

## **ACCT 302 Intermediate Accounting II (3)**

Analysis of accounting valuation problems and procedures, including discussion of revenue and expense recognition, operational assets, property, plant and equipment, intangible assets, investments in debt and equity securities, short-term and long-term liabilities, and financial statement analysis. A component of this course is dedicated to learning letter- and memo-writing skills related to the practice of accounting. Prerequisite: ACCT 301.

## **ACCT 303 Intermediate Accounting III (3)**

Analysis of more complex accounting topics, including leases, pension plans, income taxes, corporation formation, stockholders' equity and retained earnings, earnings per share, statement of cash flows, and changes and error corrections. A component of this course is dedicated to working within groups and learning report writing and presentation skills related to the practice of accounting. Prerequisite: ACCT 302.

## **ACCT 343 Cost Accounting (3)**

Job order and process cost accounting as well as standard cost systems. Includes the quantitative aspects of managerial accounting, cost-volume-profit analysis, budgeting, and the concept of relevant costs in managerial decisions. A computer spreadsheet program is utilized for each topic. Prerequisite: ACCT 242.

## **ACCT 347 Federal Income Taxes I (3)**

The provisions of the Internal Revenue Code as it relates to taxes of individual and sole proprietor. Prerequisite: ACCT 141.

## **ACCT 348 Federal Income Taxes II (3)**

The provisions of the Internal Revenue Code as it relates to taxes of partnerships and corporations. Prerequisite: ACCT 347.

## **ACCT 440 Advanced Accounting (3)**

Accounting for partnerships and business combinations with particular emphasis on consolidated financial statements. Also includes other topical issues in accounting. Prerequisite: ACCT 301.

## **ACCT 442 Auditing (3)**

Study of an auditor's professional responsibilities within the accounting profession. Emphasis on the purposes and kinds of audits, systems of internal control, audit objectives and procedures, and financial reporting including audit and other reports. Prerequisite: ACCT 301.

## **ACCT 448 Regulation (3)**

Comprehensive review of federal taxation, ethics, professional and legal responsibilities, and business law and the skills needed to apply that knowledge. Prerequisites: BUSA 381 and ACCT 347.

## **ACCT 449 Financial Accounting and Reporting (4)**

Comprehensive review of the knowledge of accounting principles generally accepted in the United States of America (GAAP) for business enterprises, not-for-profit organizations, and governmental entities, and the skills needed to apply that knowledge. Content covered in this course includes financial accounting concepts and standards, and their application. Prerequisite: ACCT 302.

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## **ADED 114 Canoeing (1)**

This course is designed to develop the skills and knowledge needed to safely paddle a tandem canoe in flat and moving water conditions. Topics include equipment, strokes, maneuvers, basic rescues, river reading, safety considerations, and stroke biomechanics. This course meets the requirements of the American Canoe Association Essentials of Canoe Course. Meets General Education Health and Physical Education Requirement.

## **ADED 137 Challenge Course Experience (1)**

Challenge courses utilize low and high elements that engage students physically in problem solving activities to encourage personal discovery and growth in the context of a supportive community. Meets General Education Health and Physical Education Requirement.

## **ADED 139 Wilderness Encounter (3)**

Offered in J-Term, this introductory course involves an extended wilderness trip utilizing adventure education pedagogy to probe students' relationships with God, others, self, and creation. Hiking, backcountry camping, and Leave No Trace are some of the skills emphasized. Meets General Education Health and Physical Education Requirement.

## **ADED 180 Wilderness First Responder (3)**

Backcountry medicine course applying principles of advance first aid in a wilderness setting. This course meets requirements for WFR certification through SOLO.

## **ADED 181 Caving (1)**

This course is designed to develop the skills and knowledge needed to safely lead groups on a beginner level cave experience. Topics include equipment, caving techniques, safety, rescue, specific medical concerns, cave geology, cave ecology, and group facilitation in cave environments.

**ADED 182 Rock Climbing (1)**

This course is designed to develop the skills and knowledge needed to safely lead groups on a top rope climbing experience. Topics include equipment, climbing techniques, anchor building, belaying, risk management, rescue, climbing specific medical concerns, group facilitation, and site management.

**ADED 188 Challenge Course Facilitation (1)**

An experience based course to prepare students to facilitate low and high challenge course elements. Skills pursued include processing the experience with a group and the technical skills of rope work, belaying, and rescues. Prerequisite: ADED 137 or Instructor's consent.

**ADED 250 Foundations of Adventure Education (3)**

An exploration of the philosophical, psychological, sociological, and historical foundations of adventure programming. Course includes terminology, key organizations, influential individuals, related theories, and professional opportunities.

**ADED 251 Wilderness Education Association Certification Course (3)** A 21-day field-based course designed to develop outdoor leadership skill. Judgment and decision-making skills are the primary focus of the nationally recognized 18-point curriculum designed by the WEA and utilized in this course. Students may be eligible for certification as a WEA Outdoor Leader upon the successful completion of this course. Prerequisite: ADED 139.

**ADED 301 Leadership, Facilitation, and Group Dynamics (3)**

Study of theories and principles of adventure leadership. Focus on framing, facilitating, and debriefing adventure education activities. Exploration of group dynamics in field-based adventure experiences. Prerequisite: ADED 137.

**ADED 351 Programming and Trip Design (3)**

This course is designed to assist students in developing leadership and programming skills useful in a variety of leisure settings with emphasis on adventure education. Theoretical principles will provide the basis for practical experience. An emphasis on servant leadership will permeate the course.

**ADED 352 Trip Implementation and Evaluation (3)**

Practical experience requiring the student to implement a wilderness trip of their own design. The field portion of this course occurs during spring break when students lead a wilderness experience. Provides experience with all aspects of a wilderness trip including planning, marketing, logistics, implementation, budget, and evaluation. Prerequisites: ADED 251 and ADED 351.

**ADED 391 Adventure Education Practicum (1-3)**

Practical experience related to adventure programming. May involve experiences such as instructional aide, adventure programming facilitator, project supervisor, or off-campus employment. Prerequisite: Department approval.

**ADED 401 Advanced Technical Skills (3)**

The purpose of this course is to expose students to a variety of advanced adventure skills such as rope rescue systems, winter camping, white water canoeing, and lead rock climbing. Students will have the opportunity to pursue professional certifications such as Leave No Trace Master Educator and American Canoe Association Instructor. Prerequisite: ADED 251.

**ADED 411 Senior Seminar for Adventure Education Majors (3)**

Serves as a capstone course for adventure education majors. Stresses reading current literature, discussing ethical ideas, and exploring the relationship between Christian faith and adventure education.

**ADED 485 Internship (4-8)**

Experience in an organized adventure education or related field setting with professional supervision (Pass/Fail grade only). Required of all adventure education majors. Limited to senior status.

**ADED 491 Independent Study in Adventure Education (1-3)**

Subject to College and Departmental guidelines.

**ADED 497, 498 Major Honors (3, 3)**

Independent research program for students who have a strong academic record for a minimum of five previous semesters at college study. Overall GPA of 3.5 and Department approval required for enrollment.

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**ART 103 Introduction to Drawing (3)**

Introduction to the basic materials, methods, and subjects of drawing. Observations and development of imagery are stressed. Meets General Education Arts requirement; does not meet major requirements for art majors.

**ART 107 Introduction to Painting (3)**

Introduction to the history and process of oil painting. Emphasizes studio work, with attendance at museum exhibits and research of master and modern painters to build appreciation and knowledge of the medium. Includes instruction in drawing, color theory, painting from nature, and abstraction. Meets General Education Arts requirement; does not meet major requirements for art majors.

**ART 110 Visual Literacy (3)**

This class introduces students to basic creative problem-solving skills, processes, and methods in the analysis and creation of visual art. Students will solve visual problems and develop skills in concept/content development through the creation of various forms of visual art in a studio environment (majors only; does not meet General Education Arts requirement).

**ART 112 Introduction to Graphic Design Problem Solving (3)**

An introduction to conceptual approaches for solving visual communication problems effectively and creatively within the artistic discipline of graphic design. Meets General Education Arts requirement.

**ART 130 Introduction to Computer Art (3)**

Introduction to the history and use of the computer as a creative visual tool. Images are created with paint and drawing software as well as by manipulation of scanned objects and video-capture. Meets General Education Arts requirement.

**ART 132 Introduction to Printmaking (3)**

An exploration of three unique areas of the world of printmaking, examining one technique per week. Digital presentation, participatory demonstrations, and bi-weekly critiques will accompany each process. Participants will design and execute a series of proofs relating to the development of each image, and print a limited edition of their best project. Meets General Education Arts requirement; does not meet major requirements for art majors.

**ART 136 Paper Processes (3)**

Introduction to various papermaking techniques, paper surface design, and bookmaking structures. Technical, aesthetic, and historical components are emphasized. Meets General Education Arts requirement.

**ART 143 Introduction to Watercolor (3)**

Introduction to the materials and techniques of painting in watercolor, with an appreciation of the accomplishments in this exacting medium. Meets General Education Arts requirement.

**ART 171 Foundations of Drawing (3)**

Introduction to the materials and processes of drawing. Observation, spacial organization, and the development of imagery are stressed. Meets General Education Arts requirement.

**ART 182 Color and Design (3)**

Study of the elements and principles of two-dimensional design, with an emphasis on color. Meets General Education Arts requirement.

**ART 201 Introduction to Art Education (1)**

Overview and analysis of art education in historical, philosophical, and sociological perspective, with emphasis on the relationship between art education and general education in schools. Students will spend ten hours in the field.

**ART 211 Computer Art and Imaging (3)**

An introduction to the computer as a tool for image making, exploring drawings using pressure sensitive tablets and creating collages and layered images. Utilization of various input devices and output devices. Meets General Education Arts requirement.

**ART 215 Painting I (3)**

Introduction to the materials and techniques of oil painting, including preparation of supports. Emphasizes color, surface, and composition. Meets General Education Arts requirement.

**ART 220 Ceramics I: Wheel Techniques (3)**

Introduces the basic wheel-thrown forms that are primarily utilitarian. Emphasizes clay making, glazing, and firing techniques. Meets General Education Arts requirement.

**ART 221 Ceramics I: Handbuilding (3)**

Introduces the various techniques of pinching, coiling, slab building, and casting which are used in both a utilitarian and sculptural manner. Clay making, glazing, and firing techniques are emphasized. Meets General Education Arts requirement.

**ART 224 Dyeing, Printing and Manipulating Fabric (3)**

Learning the techniques of controlled dyeing of fabric will be the core of this course. Experimentation with various surface processes such as shibori, batik, resist dyeing, printing, devore' burn out techniques and direct painting on cloth will be explored. Meets General Education Arts requirement.

**ART 232 Screen Printing (3)**

Introduction to the techniques of screen printing, including cut paper, film, glue-based, and photographic stencil methods. Meets General Education Arts requirement. Prerequisite: ART 103 or ART 171 or Instructor's consent.

**ART 234 Weaving Techniques (3)**

The course will allow the student to investigate various processes of interlacing. Students will work primarily on the loom learning multi harness weaving, Ikat dying with additional off-loom exploration such as basketry techniques. Meets General Education Arts requirement.

**ART 236 Graphic Design and Visual Culture: Seeing, Thinking, Making (3)** This introductory course explores how graphic design shapes and makes meaning in the context of visual culture. A foundation of skills in typography, image creation, and design will be developed utilizing a range of hands-on and digital processes. Students will observe, analyze, and respond to examples of visual culture through the creation of various design projects. The class will trace key developments in historical and contemporary design issues and practice. Students will creatively and critically probe aspects of style, form, representation, and content as "meaning makers" in the broader visual culture. Meets General Education Arts requirement.

**ART 237 Typography and Visual Communications (3)**

Introduction to the formal, historical, and communicative aspects of typography within the practice of graphic design and visual communication. Students will develop technical, professional, and conceptual skills, and will explore the creative and expressive use of typography. Meets General Education Arts requirement.

**ART 251 Photography (3)**

Introduction to the film camera and darkroom techniques. Emphasizes using the camera as a tool for seeing, understanding imagery, and composition. Meets General Education Arts requirement.

**ART 262 Construction and Assemblage (3)**

An introduction to constructed and assembled sculpture. Includes techniques of construction in wood, steel, and mixed media. Meets General Education Arts requirement.

**ART 263 Carving (3)**

An introduction to carving in wood and stone, with an emphasis on the acquisition of basic skills and the development of form. Meets General Education Arts requirement.

**ART 271 Intermediate Drawing (3)**

Continuation of study in observation and spacial organization and mixed media processes. Conceptual development is emphasized. Prerequisite: ART 171.

**ART 282 Form, Space, and Media (3)**

Introduction to the principles and processes of organizing materials in space. Meets General Education Arts requirement.

**ART 283 Furniture Design (3)**

An introduction to the design and construction of furniture. Prerequisite ART 282 or ART 262 or Instructor's consent.

**ART 291 Art Practicum (1-3)**

Work experience under professional supervision in gallery, museum, curatorial, public arts groups, graphic arts, photo studios, ad agencies, printers, and other work experiences related to the visual arts. Open to art majors, sophomores and above, who have completed at least three art courses.

**ART 312 Digital Prints: Concepts and Structures (3)**

Students will explore and develop an awareness of digital printmaking techniques through image series, book structures and large format printing. Various software, drawing, and image capture will be covered. Critical evaluation and aesthetic understanding of the print/book as a physical object, and consideration of papers, substrates, for archival quality editions will be studied. Meets General Education Arts requirement.

**ART 315 Painting II (3)**

Exploration of both abstraction and observation with a view toward developing a personal direction for subject matter and use of materials. Prerequisite: ART 215.

**ART 320 Advanced Ceramics (3)**

Sustained work in one or two areas of ceramics to facilitate conceptual and technical growth. Prerequisite: ART 220 or ART 221.

**ART 330 Intaglio and Relief Printmaking (3)**

Introduction to the techniques of intaglio printmaking including drypoint, engraving, and etching. Processes of relief printing including collagraph, monotype, and linoleum cutting are also explored. Meets General Education Arts requirement.

**ART 331 Art Instructional Design and Assessment (3)**

Students develop instructional planning and assessment skills specific to the art education classroom. Emphasis on critical thinking and decision-making processes necessary for developing art instruction and evaluating the achievement of learning goals in elementary and secondary art learning environments. Topics include instructional goals, learning outcomes, content analysis, classroom assessment strategies, instructional objectives, instructional technology, instructional strategies and sequences, lesson planning, and unit planning. Prerequisites: EDUC 203/PSYC 203. Admission to the Teacher Education Program.

**ART 332 Lithography (3)**

Introduction to the techniques of lithography on aluminum plates and lithographic limestone slabs. Meets General Education Arts requirement.

**ART 334 Wearable Art (3)**

Draping and flat patterning techniques of clothing construction will form the core of this course coupled with advancing sewing skills: both machine and hand stitching. The student will use this skill to create and embellish wearable art forms of various complexities. Meets General Education Arts requirement.

**ART 336 Design for New Media (3)**

This course provides a foundation of skills and concepts that are necessary to design effective and compelling visual communication in the context of new and emerging digital technologies. Areas of exploration may include web design, linear and interactive-based online animations, design or screen-based multi-media presentations, and interface design for on-screen and hand-held devices. Prerequisite: One of the following: ART 112, ART 236, ART 237, or Instructor's consent.

**ART 337 Graphic Design and Professional Practice (3)**

This course explores design projects that reflect "real-world" professional practices found in design studios, agencies, in-house design departments, and publishing houses. Students will gain

experience in prime design projects such as corporate identity and branding design, advertising design, and editorial design. These practices will be considered within the context of client and user-based communication objectives. Students will learn the preparation of digital files for commercial printing and mass production, design presentation skills, consider portfolio development options, and create self-promotional materials for career and vocational advancement. Prerequisite: One of the following: ART 112, ART 236, ART 237, or Instructor's consent.

**ART 338 Digital Illustration: Editorial and Narrative (3)**

Development of conceptual, technical and aesthetic capabilities—utilizing a range of digital software and processes—to effectively create images that illustrate, communicate, and interpret ideas and content for various clients and audiences. Prerequisite: ART 211 or ART 312 or Instructor's consent.

**ART 339 Illustration (3)**

Consideration of the image as a means of communication. Emphasizes text/picture interaction, technique, and composition. Prerequisite: ART 271 or Instructor's consent.

**ART 347 Publication Portfolio: Design as Service (3)**

Application of design principles—technical, professional, and conceptual skills—to publication graphics including logo design and application, brochures, booklets, banners, type applications, posters, campaigns, journal design, and more. Students will be linked with non-profit and on-campus design needs to produce printed design work for their portfolio. Prerequisite: ART 237 or Instructor's consent.

**ART 352 Digital Photography (3)**

This course explores digital image capture and using color as an aesthetic tool in the hands of the creative commercial or expressive fine art photographer. Students will gain an extensive understanding of RAW file capture, digital workflow and editing, creative camera controls, controlled lighting possibilities and in-depth imaging software skills using PhotoShop, Bridge and Lightroom. Areas of investigation will also include scanning traditional film negatives to incorporate into and with digital captured files, photographic inkjet printing techniques, and the use of creative inkjet printing materials. Historical and contemporary issues related to color photography will also be explored. Prerequisite: ART 211 or ART 251 or Instructor's consent.

**ART 353 Historical Techniques and Advanced Photography (3)**

Expanding upon skills learned in Photo I this course is designed with an emphasis on advanced exposure controls through the use of the Zone System using medium and large format cameras, as well as, image manipulation using traditional fine art photographic papers, a variety of developers and advanced toners. Included in the course will also be the exploration of using larger negatives or digitally enlarging negatives for use with non-silver, hand-applied photographic printmaking, and may include gum printing, cyanotype, van dyke prints, albumen, iron salt prints and platinum/palladium printing. Prerequisite: ART 251.

**ART 355 Elementary Curriculum Strategies (3)**

Preparation for teaching visual arts in grades K-6. Examines children's artistic development and explores applicable art programs, materials, and teaching techniques. Includes observation and participation in the public schools. Prerequisite: Admission to the Teacher Education Program.

**ART 356 Secondary Curriculum Strategies (3)**

Preparation for teaching visual arts in grades 7-12. Examines artistic development of adolescent learners and explores appropriate teaching strategies, materials, and art-making activities. Includes observation and participation in the public schools. Prerequisite: Admission to the Teacher Education Program.

**ART 360 Topics in Studio Art (3)**

Selected topics in art not currently included in course offerings. Topics may include special processes, unique projects, and theory.

**ART 364 Casting (3)**

An introduction to casting in various materials including clay, plaster, concrete, resin-impregnated glass, and metals. Meets General Education Arts requirement.

**ART 371 Advanced Drawing (3)**

Execution of original work with advanced technical proficiency. Prerequisite: ART 271.

**ART 372 Figure Drawing (3)**

Introduction to the human figure as a subject drawing. Advanced techniques and experimentation with mixed media processes. Prerequisite: ART 171 and Instructor's consent.

**ART 407 Student Teaching Seminar (1)**

A seminar emphasizing disciplinary content issues that are specific to visual arts teaching. Areas of focus include curricular and instructional decision-making processes; classroom management strategies; assessment techniques; adaptations for exceptional learners; instructional technology applications; and professional development. Prerequisite: Admission to the Professional Semester.

**ART 411 Advanced Computer Art (3)**

Creation of a body of work that demonstrates growth and maturity towards conceptual, technical, and aesthetic mastery of computer processes and application. Prerequisite: ART 211 or ART 312.

**ART 415 Painting III (3)**

Continued development of individual techniques and imagery. Prerequisite: ART 315.

**ART 420 Designer as Author: Book Design, Zines (3)**

(Alternate course to supplement ART 347 Publication Portfolio: Design as Service.) There is a need for designers to be content providers throughout visual media. Students will design books, magazines, and more in this course. Through the design processes of several projects, one will be fully produced and delivered to its intended audience. Service projects where the designer initiates and exercises control over the product will be encouraged. Prerequisite: ART 237 or Instructor's consent.

**ART 431 Motion Design: Video, Animation, Communication (3)**

This course introduces students to the formal, expressive, and communicative aspects of graphic design and typography within the

context of motion, sound, video, and animation for time-based electronic media and technologies. Students will explore design projects that develop skills and concepts in narrative sequencing and editing, utilizing a range of digital software. Prerequisite: At least one of the following: ART 112, ART 236, ART 237, or Instructor's consent.

**ART 437 Graphic Design III: Advanced Typography and Design (3)**

This course builds on Graphic Design I and II, bringing together serious thought about design issues and solves demanding and complicated design problems. Prerequisite: ART 337.

**ART 438 Advanced Textile Processes (3)**

Execution of a cohesive body of work demonstrating technical excellence in a specific area of study. Prerequisite: Any two of the following: ART 224, ART 234, ART 334.

**ART 442 Advanced Printmaking (3)**

Study in one process, with an emphasis on original imagery and technical accomplishment. Prerequisite: ART 103 or ART 171 and two of the following: ART 232, ART 330, ART 331.

**ART 462 Advanced Sculpture (3)**

Execution of a body of work reflecting growth and maturity. Prerequisite: Any two of the following: ART 262, 263, or 364.

**ART 483 Advanced Graphic Design and Digital Art (3)**

Execution of original work in design and digital art areas with advanced technical proficiency in preparation for senior exhibition. Prerequisite: completion of 12 concentration credits.

**ART 485 Advanced Three-Dimensional Studies (3)**

Execution of original work in the mixed media area with advanced technical proficiency in preparation for senior exhibition. Prerequisite: completion of 12 concentration credits.

**ART 487 Advanced Two-Dimensional Studies (3)**

Execution of original work in the two-dimensional area with advanced technical proficiency in preparation for senior exhibition. Prerequisite: completion of 12 concentration credits.

**ART 491 Independent Study (1-3)**

Independent research or studio work under the supervision of an instructor. Approval must be obtained prior to enrollment.

**ART 493 Art Seminar (3)**

Explores the relationship of the Christian faith to contemporary art and to the student's individual area of study. For senior art majors only.

**ART 494 Senior Exhibit (3)**

Creation and exhibition of work from the student's area of concentration(s). Preparation of résumé, slides, and portfolio.

**ART 497, 498 Major Honors (3, 3)**

Independent creative and/or research two-semester project or program for junior- and senior-level students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5; GPA of 3.5 in the major; and departmental approval required for enrollment.



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**ARTH 111 Introduction to Art History (3)**

This course introduces students to the field of art history—what it is, what it does, and how it does it—by exploring methods of looking at, analyzing, evaluating, and contextualizing art and ways of articulating thoughts and instincts about art, as well as by examining issues of quality and beauty and developing personal criteria and judgment. (Studio and Art Education Majors only.)

**ARTH 150 Art History I: Ancient through Medieval Art (3)**

Survey of works of art and architecture from prehistory to 1400.

**ARTH 151 Art History II: Renaissance through Contemporary Art (3)**

Survey of works of art and architecture from the year 1400 to the present.

**ARTH 209 History of Modern Art (3)**

A chronological survey of modernism from the middle of the nineteenth century to the present.

**ARTH 210 Topics in Non-Western Art (3)**

Survey of one area of non-Western art, selected from one of the following areas: African, Asian (Chinese, Japanese, Korean, Oceanic), Indian and Islamic, and Ancient American. The course will consider objects and buildings as both artistic creations and cultural artifacts. Meets General Education Non-Western Studies requirement.

**ARTH 302 19<sup>th</sup>- and 20<sup>th</sup>-Century Art (3)**

Studies of selected topics in the visual arts in Europe and America from the age of revolution to the contemporary period.

**ARTH 303 Ancient and Early Christian Art (3)**

Studies in the visual arts of the ancient world from the Paleolithic through the first centuries of Christianity in Europe and Byzantium. Prerequisite: ARTH 150, ARTH 151, or Instructor's consent.

**ARTH 304 Medieval and Renaissance Art (3)**

Studies in the visual arts from the Northern European art of the early Middle Ages through the Italian High Renaissance. Prerequisite: ARTH 150, ARTH 151 or Instructor's consent.

**ARTH 305 Reformation and Baroque Art (3)**

Studies in the visual arts in Europe and the New World from early 16<sup>th</sup>-century Germany through the Enlightenment. Prerequisite: ARTH 150, ARTH 151 or Instructor's consent.

**ARTH 308 Museum Studies (3)**

A course addressing the history and philosophy of the museum, responsible museum practices, and the design and installation of exhibitions, using the facilities and exhibition program of the Aughinbaugh Gallery and other area museums to provide interaction with art professionals and opportunities for practical application.

**ARTH 312 Artists and the Theatre (3)**

Examination of stage design and theatre architecture created by mainstream artists and architects from the late Middle Ages to the present.

**ARTH 360 Topics in Art History (3)**

Selected topics in art history not currently included in the course catalog.

**ARTH 490, Art History Seminar (3)**

Discussion of advanced art historical methodologies and theories, critical examination of art historical literature, training in specialized art historical research and writing, and reflection on the field, its opportunities, and the intersection of faith and ethical values. Prerequisite: ARTH 111, ARTH 150 or 151, and a 300-level Topics course or Instructor's consent.

**ARTH 492 Art History Capstone (3)**

Preparation of a substantial research paper on a theme chosen in consultation with the advisor to reflect the student's area of specialization. During the semester the students meet with the advisor and fellow majors to develop the paper and to explore the integration of faith and art historical learning; an appropriate reflection of that integration is incorporated in the paper.

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**ARTM 401 Arts Management (3)**

Examines the skills needed to run an arts organization, including fundraising, budgeting, grants writing, publicity, event planning, and board development. (Alternate years, offered Spring Term 2014.)

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**ATED 102 Introduction to Athletic Training (1)**

An overview of the athletic training profession, career opportunities, the history of the NATA, and athletic training related organizations and requirements.

**ATED 136 Prevention and Risk Management (3)**

The study of injury and illness risk factors encountered by athletes and physically active in order to plan and implement prevention and risk management programs.

**ATED 137 Prevention and Risk Management Lab (1)**

The application of injury and illness prevention and risk management psychomotor skills and competencies.

**ATED 180 First Aid and Emergency Care (3)**

Study and practical application of appropriate first aid and emergency care for acute athletic injuries/illnesses. Class meets requirements for American Red Cross First Responder certification. Prerequisite: Athletic Training Major status.

**ATED 203 Medical Terminology and Topics (2)**

The study and application of medical terminology, documentation and specific medical topics/conditions associated with physically active individuals.

**ATED 231 Injury Assessment I (2)**

Study and practice of athlete and physically active injury/illness assessment techniques for the lower extremity, head and face. Includes 1.5 laboratory hours per week.

**ATED 232 Injury Assessment II (2)**

Study and practice of athlete and physically active injury/illness assessment techniques for the upper extremity, head and spine. Includes 1.5 laboratory hours per week.

**ATED 233 Injury Assessment III (2)**

Study and practice of the physically active injury/illness assessment techniques for the abdomen and spine. Includes 1.5 laboratory hours per week.

**ATED 246 Practicum in Athletic Training I (2)**

The course requires 80-100 clinical hours specialized clinical education experience for second semester sophomore Athletic Training majors under the supervision of on-campus certified athletic trainers. It includes classroom lecture, practical applications and physician observations. Prerequisite: Formal acceptance into the Athletic Training Major. Students may not acquire more than 20 hours per week.

**ATED 291 Clinical Experience (.5-1)**

A repeatable practical clinical education experience offered during the J-Term or Summer Session. Course requires 20-60 clinical hours under the supervision of on-campus certified athletic trainers. Students may not acquire more than 20 hours per week. (Pass/Fail grade only.)

**ATED 330 Pharmacology for Athletic Training (2)**

Study of pharmacologic applications for injury/illness to athletes and the physically active. Includes pharmacokinetics, pharmacodynamics, indications, contraindications, interactions of medications, and relevant governing regulations.

**ATED 335 Therapeutic Exercise (4)**

Study of theoretical and practical applications of exercise, rehabilitation, and reconditioning programs for the injured athlete. Three hours of lecture and three hours of lab per week.

**ATED 337 Therapeutic Modalities and Treatment Techniques (4)**

Study of the theories, uses, and clinical applications for physical therapy modalities, agents, and treatment techniques. Three hours of lecture and three hours of lab per week.

**ATED 346 Practicum in Athletic Training II (2)**

Specialized clinical education experience for first semester junior Athletic Training majors. The course requires 80-120 clinical hours under the supervision of on-campus certified athletic trainers in the athletic training room and with an on-campus sport. It includes classroom lecture, practical application and physician observations. Students may not acquire more than 20 hours per week.

**ATED 348 Practicum in Athletic Training III (2)**

Specialized clinical education experience for second semester junior Athletic Training majors. The course requires 80-120 clinical hours under the supervision of on-campus certified athletic trainers in the athletic training room and with an on-campus sport. It includes classroom lecture, practical application and physician observations. Students may not acquire more than 20 hours per week.

**ATED 442 Organization and Administration of Athletic Training**

(3) Principle and strategies for organization, supervision, and implementation of all the administrative components of traditional athletic training programs (i.e., high school, college, pro and non-traditional programs, sports medicine clinics, hospitals, industrial settings).

**ATED 446 Collision Sport in Athletic Training (2)**

Specialized class for senior Athletic Training majors. Includes classroom lecture, seminar, and practical applications related to contact-collision sports which are equipment intensive (i.e., football and lacrosse). (Offered Fall Semester.)

**ATED 447 Clinical Athletic Training (2)**

Specialized class for senior Athletic Training majors. Includes classroom lecture, seminar, and applications related to issues in clinical athletic training and sports medicine (i.e., care of the physically active, licensure, third-party reimbursement, employment, etc.). (Offered J-Term.)

**ATED 449 Clinical Experience in Athletic Training (1)**

50-60 hours practical experience (care of the physically active) in an off campus allied health facility, medical facility, or industrial setting. Learning activities include surgery observation(s), a patient case study, and special topic presentation. Students may not acquire more than 20 hours per week. Prerequisites: ATED 335 and 337.

**ATED 450 Collision Sport Experience (1-3)**

A specialized collision sport clinical education experience for senior Athletic Training majors. The course requires 120-200 clinical hours under the supervision of a certified athletic trainer. Students taking the course in the fall gain football related experience and those taking the course in the spring gain lacrosse experience. Students may not acquire more than 20 hours per week.

**ATED 480 Senior Seminar in Athletic Training (4)**

A specialized senior capstone course that evaluates final mastery of athletic training competencies and proficiencies. Includes special medical topics, pathology-related topics, and preparation for the BOC certification examination. Three hours of lecture and three hours of lab per week.

**ATED 497, 498 Major Honors (3, 3)**

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5 and department approval required for enrollment.

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**B****BIBL 201 Encountering the Bible (3)**

Equips students to interpret the Old and New Testaments in their historical and literary contexts. This course explores various genres and addresses the origin, transmission, and canonization of the Bible. Students learn to understand and apply biblical texts responsibly through careful reading and analysis. Meets General Education Knowledge of the Bible requirement.

**BIBL 202 Encountering the Bible for Majors (3)**

Equips students to interpret the Old and New Testaments in their historical and literary contexts. This course explores various genres and addresses the origin, transmission, and canonization of the Bible. Students learn to understand and apply biblical texts responsibly through careful reading and analysis. Alternate to BIBL 201, designed specifically for students pursuing a major in Biblical and Religious Studies or Christian Ministries. Meets General Education Knowledge of the Bible requirement.

**BIBL 203 Encountering the Old Testament (Hebrew Bible) (3)**

Equips students to interpret the Old Testament (Hebrew Bible) in its historical and literary contexts. This course explores various genres and addresses the origin, transmission, and canonization of the Old Testament. Students learn to understand and apply biblical texts responsibly through careful reading and analysis. Meets General Education Knowledge of the Bible requirement.

**BIBL 204 Encountering the New Testament (3)**

Equips students to interpret the New Testament in its historical and literary contexts. This course explores various genres and addresses the origin, transmission, and canonization of the New Testament. Students learn to understand and apply biblical texts responsibly through careful reading and analysis. Meets General Education Knowledge of the Bible requirement.

**BIBL 231 Old Testament Literature (3)**

Introduction to content and themes of the Old Testament with emphasis on sequence and meaning of events. Prerequisite: BIBL 201, 202, 203, or 204.

**BIBL 233 Old Testament Literature for Majors (3)**

Introduction to content and themes of the Old Testament with emphasis on sequence and meaning of events. Alternate to BIBL 231, designed specifically for students pursuing Bible, Religion, or Christian Ministries majors. Prerequisite: BIBL 201, 202, 203, or 204.

**BIBL 235 New Testament Literature (3)** Survey of historical and cultural background of the New Testament, the life of Christ, the formation of the early Church, and the main themes of New Testament books. Prerequisite: BIBL 201, 202, 203, or 204.

**BIBL 237 New Testament Literature for Majors (3)**

Survey of historical and cultural background of the New Testament, the life of Christ, the formation of the early Church, and the main themes of New Testament books. Alternate to BIBL 235, designed specifically for students pursuing Bible, Religion, or Christian Ministries majors. Prerequisite: BIBL 201, 202, 203, or 204.

**BIBL 253 Abraham, Moses, and the Exodus (3)**

This course explores the content and themes of selected portions of the Old Testament books of Genesis through Deuteronomy with a particular emphasis on Genesis and Exodus. Students examine the ancestral stories in Genesis and Israel's dramatic exodus from Egypt. Theological issues and points of contemporary application will also be addressed. Prerequisite: BIBL 201, 202, 203, or 204.

**BIBL 256 Conquest, Kingship, and Collapse (3)**

This course explores the content and themes of selected portions of the Old Testament books of Joshua through Second Kings. Students will consider competing ideas about Israel's emergence in Canaan, examine the characterization of David, and investigate various perspectives on kings and kingship. Theological issues and points of contemporary application will also be addressed. Prerequisite: BIBL 201, 202, 203, or 204.

**BIBL 259 Psalms and Wisdom Literature (3)**

This course examines ancient Israel's poetic expressions of worship and explorations of wisdom. Students will study the workings of Hebrew poetry and the religious concerns of the authors as they attempted to worship God, understand life, explain suffering, and find wisdom. The course also explores current uses and significance of Psalms, Proverbs, Ecclesiastes, and Song of Songs. Prerequisite: BIBL 201, 202, 203, or 204.

**BIBL 262 Prophets and the Prophetic Vision (3)**

This course explores the ministry of ancient Israel's prophetic tradition, with special attention to the prophets' vision and role within Israelite society. Students will examine the relationship of the

prophets to the religious and political establishments of their times, and discuss the applicability of prophetic theology to current social and political concerns. Prerequisite: BIBL 201, 202, 203, or 204.

**BIBL 273 Jesus and the Gospels (3)**

This course will examine and discuss how the Gospels portray Jesus of Nazareth. We will focus attention on two areas: (1) the life and teaching of Jesus (and its significance for faith); and (2) the nature of the canonical Gospels. In addition to a careful analysis of the Gospel accounts, we will thoroughly engage similarities and differences that appear in various gospel accounts. Prerequisite: BIBL 201, 202, 203, or 204.

**BIBL 277 Apostle to the Gentiles: Paul in Acts and His Letters (3)**

The Apostle Paul was one of the most dynamic leaders of the early church, and his missionary letters have profoundly influenced Christian history. This course explores the book of Acts and Paul's letters, interacting with his missionary theology and its implications for today. By studying his writings in light of their first-century cultural context, we better understand their content and relevance for Christian discipleship. Prerequisite: BIBL 201, 202, 203, or 204.

**BIBL 281 The Book of Revelation (3)**

This course considers the authorship and historical setting of Revelation as well as contemporary applications for worship and discipleship. A variety of historical and contemporary methods of interpretation will help the student to understand the rich and powerful symbols found in the Book of Revelation. Prerequisite: BIBL 201, 202, 203, or 204.

**BIBL 285 Studies in Biblical Texts (3)**

Study in the English text of a particular book or books of the Old and/or New Testament. Attention is given to historical background, content, and theology. Prerequisite: BIBL 201, 202, 203, or 204.

**BIBL 291 Issues of War, Peace and Social Justice in Biblical Texts (3)**

A study of the major Biblical texts pertaining to war, peace, and social justice issues, with attention to their application past and present. This course assesses the traditional Christian stances toward war and also deals with more recent developments such as terrorism, pre-emptive strike, nonviolent resistance, and active peacemaking, all from a biblical perspective. It also explores related issues like the relationships between patriotism, military service, nationalism, and Christian citizenship in the kingdom of God. Prerequisite: BIBL 201, 202, 203, or 204.

**BIBL 293 The Bible and Social Ethics (3)**

Central concepts and methods of biblical ethics in the social context are developed through an examination of relevant passages from both testaments. Biblical values applied to a discussion of current social issues. Prerequisite: IDCR 151 and one of the following BIBL courses 201, 202, 203, or 204. Meets General Education Ethics in the Modern World requirement.

**BIBL 307 Biblical Backgrounds (3)**

Study of non-biblical resources that contribute to understanding the historical, theological, and cultural landscape of the ancient Mediterranean world. Readings will include selections from sources such as the Dead Sea Scrolls, Josephus, the Apocrypha, and the Pseudepigrapha. Material resources from archaeology might also be studied. Prerequisites: BIBL 201, 202, 203, or 204; and one additional BIBL course, excluding BIBL 201, 202, 203, and 204.

**BIBL 312 Selected Old Testament Books (3)**

Study in the English text of a particular portion of Old Testament literature, e.g., Genesis, the Psalms, Isaiah. Emphasizes both content and structure with consideration of critical issues. Prerequisite: BIBL 231 or 233.

**BIBL 313 Selected New Testament Books (3)**

Study in the English text of a particular portion of New Testament literature, e.g., the Gospel of John, Romans, Hebrews. Emphasizes both content and structure with consideration of critical issues. Prerequisite: BIBL 235 or 237.

**BIBL 381 Biblical Interpretation and Criticism (3)**

A study of methods by which the Biblical text is analyzed, and hermeneutical approaches stemming from diverse ethnic, socio-economic, lay, and scholarly communities. Prerequisites: BIBL 231 or 233 and BIBL 235 or 237.

**BIBL 382 Topics in Biblical Theology (3)**

Study of a selected biblical motif, noting its comparative treatment by various biblical authors and tracing its development through Scripture. Prerequisites: BIBL 231 or 233 and BIBL 235 or 237.

**BIBL 491 Independent Study (1-3)**

Selected topics pursued independently with frequent consultation with a faculty supervisor.

**BIBL 497, 498 Major Honors (3, 3)**

Independent research program for students who have a strong academic record (3.5 cumulative GPA) for a minimum of five previous semesters of college study. Department approval required for enrollment.

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**BIOL 102 Bioscience (3)**

Introductory course designed for students who are non-science majors. Emphasis is on major principles and concepts. Two lectures and three hours of laboratory per week. Meets General Education Laboratory Science requirement. Does not meet Department of Biological Sciences major requirement.

**BIOL 106 Life Sciences (3)**

Selected topics in the life sciences designed for Education Majors. Emphasis is on the underlying concepts of biology which impact our daily lives as well as human interaction with the environment. Two lectures and three hours of laboratory each week. Along with PHSC 102, BIOL 106 meets General Education Laboratory Science requirement for Education Majors only. Does not meet Department of Biological Sciences major requirement.

**BIOL 117 Field Biology (3)**

A field-oriented course introducing students to the natural history of the animals and plants, their field identification, adaptations to changing seasons, and stewardship. Two lectures and three hours of laboratory weekly. Meets General Education Laboratory Science requirement. Does not meet Department of Biological Sciences major requirement.

**BIOL 140 Ecology and Sustainability (3)**

This course is designed to give students an introductory understanding of how ecological systems and ecological principles apply to natural ecosystems and the human interface with those systems. It will discuss ecological sustainability, economic

sustainability, and social sustainability. It will include topics such as global biogeochemical cycles, the hydrologic cycle, the carbon cycle, trophic levels in ecosystems, competition, predation, parasitism, mutualism, population dynamics, agriculture, forestry and biodiversity. Two lectures and three hours of laboratory per week. Meets General Education Laboratory Science requirement. Does not meet Department of Biological Sciences major requirement. Cross-listed with SUST 140.

**BIOL 160 Molecular and Cellular Biology (4)**

Introduction to the molecular, genetic, and cellular aspects of biology. It includes a study of the nature of science, biological molecules, cell structure and function, enzymes, metabolism, and classical and molecular genetics. Three hours of lecture and three hours of laboratory per week. Although this course meets General Education Laboratory Science requirement for all majors, it is required for Biology majors and is taught at a level appropriate for science majors.

**BIOL 161 Animal Form and Function (3)**

Students will develop an understanding of the diversity of animals and their natural histories as they relate to their respective form and function. The course seeks to integrate comparative aspects of the development, morphology, and physiology of animals with the concepts of life history, behavioral ecology, and evolutionary biology. In addition to lecture, laboratory sessions will enhance students' critical thinking skills and understanding of the complementarity of form and function as represented in the Animal Kingdom. Two hours of lecture and three hours of laboratory per week. Although this course meets General Education Laboratory Science requirement for all majors, it is required for Biology majors and taught at a science major-appropriate level. Course fee - \$90.

**BIOL 162 Plant Form and Function (3)**

Students will develop an understanding of the diversity of plants and their natural histories as they relate to their respective form and function. Topics of study will include diversity, anatomy, physiology, reproduction, and ecology with specific reference to economically and medicinally important plant groups. The distribution of major plant communities with global climate patterns and plant roles in critical biogeochemical cycles will be studied. Two hours of lecture and three hours of laboratory per week. Although this course meets General Education Laboratory Science requirement for all majors, it is required for Biology majors and is taught at a level appropriate for science majors. Course fee - \$90.

**BIOL 185 Human Anatomy and Physiology I (4)**

Study of the structure and function of the human body from both a cellular and systemic perspective. Organ systems included are the integumentary, skeletal, muscular, nervous and endocrine systems. Three lectures and three hours of laboratory per week. Intended for majors in the health sciences but does not meet Department of Biological Sciences major requirements.

**BIOL 186 Human Anatomy and Physiology II (4)**

Study of the structure and function of the human body from both a cellular and systemic perspective. Organ systems included are the cardiovascular, immune, respiratory, digestive, urinary and reproductive systems. Three lectures and three hours of laboratory per week. Intended for majors in the health sciences but does not meet Department of Biological Sciences major requirements.

**BIOL 189 Genetics for Health Professions (3)**

Study of Human Genetics as applied to health and disease, including treatment of disease and ethical, legal and social implications of using genetic techniques. Three lectures per week.

**BIOL 216 Environmental Issues and Sustainable Solutions (3)**

A broad interdisciplinary examination of the issues surrounding environmental sustainability and stewardship. The course includes an examination of the scientific method as it applies to the study of ecosystem structure and function. Ethics, economics and public policy are examined as they relate to resource use, population growth, food production, pollution, biodiversity protection, and energy consumption. Central to the discussion are Judeo-Christian perspectives on environmental stewardship as they pertain to responsible/sustainable living. Meets General Education Science, Technology, and the World requirement. Does not count toward Biology or Environmental Science major/minor.

**BIOL 218 Health Care in the Developing World (3)**

This course will allow students to develop a working knowledge of the types of health care available in various parts of the world as well as an understanding of the disease patterns and access to health care for those people living in the poorer and underdeveloped parts of the world. Meets General Education Cross-Cultural requirement. Enrollment by approved special application only.

**BIOL 258 Human Biology (4)**

Major principles of human structure and function, including genetics, reproduction, development, and ecology. Three lectures and three hours of laboratory per week. Meets General Education Laboratory Science requirement. Does not meet Department of Biological Sciences major requirement.

**BIOL 260 Genetics and Development (3)**

Building on concepts from BIOL 160, Molecular and Cellular Biology, BIOL 260 provides a deeper foundation in classical and molecular genetics, including topics of non-Mendelian inheritance, linkage, gene interactions and regulation, molecular genetics, mutations, and developmental genetics. Two hours of lecture and three hours of laboratory per week. Prerequisite: BIOL 160.

**BIOL 262 Ecology and Adaptation (4)**

Students will explore the interactions of organisms at the species, community, and ecosystem levels as well as investigate ecology as it relates to the atmospheric sciences, physics, and chemistry. Additionally, evidence for modern evolutionary thought will be discussed within the framework of a Christian world view. Through comprehensive and investigative approaches to learning, this course will stress the development of students' critical thinking and writing skills. Three hours of lecture and three hours of laboratory per week. Prerequisite: BIOL 160, BIOL 161, and BIOL 162.

**BIOL 269 Ecology of Florida (3)**

On-site study of the unique and fragile Florida ecosystem emphasizing the ecology of the Everglades. Three-week field experience provides many opportunities to observe the flora and fauna of Floridian ecosystems. Meets General Education Laboratory Science requirement.

**BIOL 271 Ecological Field Techniques (2)**

Introduction to the use of field research methods, field measurements, landscape and population analysis, and landscape

mapping. One lecture and one field/laboratory session weekly. Prerequisite: BIOL 162. (Alternate years, offered 2013-2014.)

**BIOL 274 Environmental Science (3)**

An in-depth examination of the issues surrounding environmental sustainability and stewardship. Ethics, economics and public policy are examined as they relate to resource use, population growth, food production, pollution, biodiversity protection, and energy. Central to the discussion are Judeo-Christian perspectives on environmental stewardship as they pertain to responsible/sustainable living. Prerequisite: BIOL 160, BIOL 161, and BIOL 162. (Alternate years, offered 2013-2014.)

**BIOL 290 Topics in Field Biology (3)**

Three-week natural history travel courses offered in January or May. Courses in recent years included Desert Ecology of South Western United States, Natural History of New Zealand, and Tropical Forest Ecology of Panama. Each on-site course will emphasize field identification, natural history, and ecology of the local bird, mammal, reptile, invertebrate, and plant species within the context of their local ecosystem. Prerequisite: BIOL 262 or Instructor's consent.

**BIOL 297 Tropical Biology: Latin America (3)**

A three-week, on-site, intensive examination of tropical ecosystems including their structure, function, biodiversity, conservation, and stewardship. Identification of the local flora and fauna will be emphasized. Prerequisite: BIOL 262.

**BIOL 313 Developmental Biology (3)**

Principles of animal development, with major emphasis on vertebrate embryology. Additional topics: growth, differentiation, and metamorphosis. Two lectures and three hours of laboratory per week. Prerequisite: BIOL 260.

**BIOL 315 Environmental Ethics (3)**

A seminar course contrasting Judeo-Christian and Humanistic views of environmental ethics. Emphasis will be placed on developing an individual ethic within a Biblical framework of stewardship. Issues will include pollution, resource use, human population, and the connection of environmental stewardship with issues of justice in developing countries. Prerequisite: IDCR 151. Meets General Education Ethics in the Modern World requirement.

**BIOL 317 Bioethics (3)**

This course emphasizes a Christian perspective on ethical issues related to the biology of living organisms. Exploring concerns related to the development and use of biotechnology for both individual persons and for society at large will be the focus of the course. Prerequisite: IDCR 151. Meets General Education Ethics in the Modern World requirement.

**BIOL 321 Mycology (4)**

Survey of the fungi-emphasizing identification of local species, classification, biological, and economic importance. Three lectures and three hours of laboratory per week. Prerequisite: BIOL 162. (Alternate years, offered 2014-2015)

**BIOL 325 Medicinal Botany (3)**

A survey of the use of plants in modern pharmacology and as herbal supplements. Topics include biosynthesis and function of plant secondary molecules; selected plant-based pharmaceuticals; analysis

of efficacy, safety, and regulation of herbal supplements; taxonomy of important medicinal plant families, and plants as nutraceuticals. Three lectures per week. Prerequisites: BIOL 162 and CHEM 310.

**BIOL 332 Plant Taxonomy (4)**

Principles of classification with special reference to local flora, including plants of horticultural interest. Techniques of collection, identification, and preservation of plants. Three lectures and three hours of laboratory per week. Prerequisite: BIOL 162. (Alternate years, offered 2013-2014.)

**BIOL 334 Plant Ecology (4)**

Study of changes in plant form, function, community composition, and community diversity across environmental gradients. Emphasizes study of regional vegetation through research projects. Three hours of lecture and three hours of laboratory per week. Prerequisite: BIOL 262 or Instructor's consent. (Alternate years, offered 2013-2014.)

**BIOL 335 Plant Propagation (3)**

Principles and practices of asexual and sexual plant propagation: horticultural crop improvement. Three lectures and three hours of laboratory per week. Prerequisite: BIOL 162. (Alternate years, offered 2014-2015.)

**BIOL 348 Animal Behavior (3)**

Animal Behavior describes and investigates the proximate and ultimate causes of animals' actions. An interdisciplinary approach will examine and integrate the functional behavior of animals through ecological, evolutionary, genetic, neurophysiological and psychological bases. Prerequisite: BIOL 161, BIOL 185, or PSYC 101. (Alternate years, offered 2014-2015.)

**BIOL 356 Ornithology (4)**

Study of the class Aves emphasizing structure and classification. The ecology, behavior, and song of birds is examined. Three lectures and three hours of laboratory per week. Prerequisite: BIOL 161. (Alternate years, offered 2013-2014.)

**BIOL 358 Herpetology (4)**

Study of amphibians and reptiles with emphasis on anatomy, development, physiology, reproductive biology, behavior, ecology, and systematics. Laboratory will emphasize field observation, identification, and research. Three lectures and three hours of laboratory per week. Prerequisite: BIOL 161. (Alternate years, offered 2014-2015.)

**BIOL 360 Topics in Biology (3-4)**

Selected topics in biology not currently included in course offerings. May be repeated for additional credit as the topic/study changes. Prerequisites: Determined by Instructor.

**BIOL 362 Aquatic Zoology (4)**

A comprehensive course on the taxonomy and ecology of aquatic insects, fish, amphibians, and reptiles. Identification of the biota common to south central Pennsylvania's lentic and lotic ecosystems. Three lectures and three hours of laboratory per week. Prerequisite: BIOL 161. (Alternate years, offered 2014-2015.)

**BIOL 381 Microbiology (4)**

A study of microorganisms designed for those in science majors, including nutrition and dietetics, and environmental science.

Laboratory emphasizes food and environmental microbiology and biotechnology, as well as standard microbiology lab techniques. Three lectures and three hours lab per week. Prerequisite: BIOL 160 or BIOL 185 and CHEM 105 or Instructor's consent. (Alternate years, offered 2015-2016.)

**BIOL 382 Microbiology for Health Professions (4)**

A study of microbiology, with emphasis on clinical and epidemiological applications, including immunology. Designed for those students entering health professions. Laboratory sessions include standard microbiology lab techniques as well as exercises related to medical technology. Three lectures and three hours lab per week. Prerequisite: CHEM 103, CHEM 105 or Instructor's consent.

**BIOL 385 Physiology (4)**

Functional processes, including osmoregulation, excretion, metabolism, and transport and control systems, with strong emphasis on human physiology. Three lectures and three hours of laboratory per week. Prerequisite: CHEM 105 or Instructor's consent.

**BIOL 386 Human Anatomy (4)**

A study of the gross anatomy of the human, including extensive laboratory experience in the dissection of a human cadaver. Utilization of computer software to supplement dissection of the human body. Two lectures and six hours of laboratory per week. Prerequisite: BIOL 160 or BIOL 161, or BIOL 385 or BIOL 185 and BIOL 186.

**BIOL 387 Neuroscience (3)**

Fundamentals of anatomy and physiology of the human nervous system. Emphasis on motor control, sensory input, the special senses, and behavior, including disease and dysfunction. Additional topics may include sleep, learning and memory, and neural development. Three lectures per week. Prerequisite: BIOL 161 or BIOL 185 or Instructor's consent.

**BIOL 391 Biology Practicum (1-3)**

Realities of the biological field through direct participation. May involve experience as a lab assistant, assistance with faculty research, or off-campus employment. Open to juniors and seniors in the Department of Biological Sciences. Maximum of three credits per semester with the total not exceeding four credits.

**BIOL 392 Environmental Education Practicum (3)**

This course engages participants in curriculum development and implementation specific to environmental education over a variety of student age groups. Emphasis is on reviewing existing environmental education materials, drafting lesson plans specific to the practicum setting, and implementing these plans. Prerequisites or concurrent enrollment: EDUC 201, BIOL 262, and BIOL 274.

**BIOL 393 Research Methods (1)**

This course will focus on research methodology including advanced literature searching, experimental design, and modeling. Students working under the guidance of a departmental faculty member will select a research topic, conduct a literature review, and write a research proposal. BIOL 393 earns biology elective credit only when followed by BIOL 422/BIOL 497/BIOL 498. One lecture per week. Prerequisites: Junior standing and 3.0 GPA or departmental consent. Cross-listed with CHEM 393.

**BIOL 407 Secondary Science Curriculum and Instruction (2)**

A seminar emphasizing disciplinary content issues that are specific to biology, chemistry, or environmental education teaching. Areas of focus include curricular and instructional decision-making processes; classroom management strategies; assessment techniques; adaptations for exceptional learners; instructional technology applications; and professional development. Concurrent enrollment with EDUC 420, TEP 435, and PSYC/HDFS 311. Prerequisite: admission to the Professional Semester. Cross-listed: CHEM 407.

**BIOL 412 Cell Biology (4)**

Study correlating cell structure and cell function. Emphasizes current literature in molecular and cellular biology. Fundamentals of microtechnique in laboratory. Three lectures and three hours of laboratory per week. Prerequisite: BIOL 260. (Alternate years, offered 2014-2015.)

**BIOL 413 Molecular Biology (4)**

Emphasizes research techniques and understanding of molecular genetics including the structure, organization, expression, and manipulation of the gene. Experiments in recombinant DNA methodology include cloning, transformation, restriction analyses, PCR, site directed mutagenesis, and DNA sequence analysis. Three lectures and four hours of laboratory each week. Prerequisite: BIOL 260.

**BIOL 417 Molecular Genetics (4)**

Selected topics illustrating the molecular genetics of eukaryotic and prokaryotic organisms and viruses will be surveyed with an emphasis on primary research publications. Three lectures and three hours of laboratory each week. Prerequisite: BIOL 413. (Alternate years, offered 2013-2014.)

**BIOL 418 Immunology (4)**

Introduction to the immune system with emphasis on the host's interaction with an environment which contains many potentially harmful microbes. Control and specificity of the adaptive immune system are illustrated by studying structure and function of antibodies and T cell receptors, development of immune cells, response to immunization, allergy, autoimmunity, graft rejection and immunity to tumors. Three hours of lecture and three hours of laboratory per week. Prerequisites: BIOL 260, BIOL 382 (highly recommended). (Alternate years, offered 2013-2014.)

**BIOL 422 Senior Research (1-3)**

Offered during the fall and spring semester for fourth year students. Students will carry out the research project proposed in the Research Methods course under the direction of a faculty mentor. The semester culminates with the submission of a written thesis and an oral presentation to a departmental gathering that is advertised campus wide. Prerequisites: Senior year standing and completion of the BIOL 393 Research Methods or Instructor's consent. Maximum of three credits per semester; a maximum of five credits may be used as elective credit for the biology major. Cross-listed with CHEM 422/NUTR 422. This course does not fulfill departmental honors requirements. Students pursuing departmental honors must enroll in BIOL 497, 498.

**BIOL 491 Independent Study (1-3)**

Independent study or research under the supervision of an instructor whose approval must precede the student's enrollment.

**BIOL 495 Capstone: Natural Sciences (3)**

Historical, philosophical, and ethical aspects of the biological sciences, with some discussion of various models for relating science and Christian faith. Open only to Senior majors in the Departments of Biological Sciences and Chemistry and Biochemistry and to Biopsychology majors. Cross-listed with CHEM 495. Prerequisite: PHIL 101 or PHIL 102.

**BIOL 497, 498 Major Honors (2-3, 2-3)**

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5, BIOL 393 Research Methods, and departmental approval required for enrollment.

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**BUSA 102 Opportunities in Business (1)**

To familiarize students with the various disciplines taught within the field of business, the interrelatedness of the business disciplines, career possibilities available, the faculty of the department, and the relatedness to the liberal arts. (Pass/Fail grade only.)

**BUSA 115 Personal Money Management (1)**

A course in basic personal financial concepts designed to help students handle their money, and empower them to start their life with a solid financial foundation. Topics include savings, budgeting, debt, career planning, and personal money management and the Christian faith. (Pass/Fail grade only.)

**BUSA 120 Principles of Management (3)**

An introduction to the basic processes of management including human behavior in the workplace, leadership, teams, quality, change, organizational structure and design, international management, and management ethics.

**BUSA 130 Personal Finance (3)**

Career planning, budgeting, income taxes, investing and saving, various aspects of banking, credit and home ownership, insurance (life, auto, home), and estate planning with an integration of Christian faith throughout.

**BUSA 305 Writing for Business (3)**

Designed to improve clarity, conciseness, and speed in writing for the business world. Emphasis is on organizing written business communications to meet the readers' needs.

**BUSA 350 Financial Management (3)**

An overview of the significant functions and roles performed by the corporate financial manager. Students will gain a working knowledge of managerial finance by learning to: develop a systematic approach to financial analysis; apply techniques for planning, managing, evaluating and recommending improvements in the organization's financial performance. Major topics include financial asset valuation, risk and return, and capital budgeting. Prerequisites: ACCT 242, ECON 220, MATH 107 or MATH 108 or MATH 111.

**BUSA 351 Investments (3)**

Deals with a thorough analysis of the theory and application of investments in relation to business cycles, institutional behavior and risk and return opportunities in the economic context. The course is presented from the investor's viewpoint and incorporates applied and empirical methodologies while covering investment strategies and policies. Major content areas include an introduction to the

investment environment, modern portfolio theory, capital markets and instruments, security analysis, portfolio management, and derivatives. Prerequisites: STAT 281 and BUSA 350.

#### **BUSA 356 Decision-Making Tools in Management (3)**

Develop facility with analytical tools including two-sample testing; ANOVA; non-parametric testing; multiple regression; time series and indexing; project planning, scheduling, and control; productivity measuring; and quality control. Prerequisite: STAT 281.

#### **BUSA 358 Making a Better World? (3)**

From the Borg to Matrix to I-Robot it is clear that fears of decision making machines make for popular movies. Students in this course will examine the foundation of these fears by studying the history, current practices and projected directions of Management Science (based on mathematical and informational sciences) and Information Technology. Emphasis is placed on examining these areas from a Christian perspective. Meets Science, Technology and World General Education requirement.

#### **BUSA 360 Operations Management (3)**

Study of the effective and efficient production of goods and services in both nonprofit and for profit organizations with emphasis on planning and scheduling of operations, design of production systems, allocation of resources including manpower, equipment, and control. Prerequisites: STAT 281 (required for Management and Business majors) or STAT 269; CIS 190 or equivalent (offered on demand).

#### **BUSA 370 Moral Issues in Business (3)**

Students develop a personal framework for ethical decision-making that draws from various moral philosophies and is rooted in their Christian faith. These ethical frameworks are used to examine a wide range of moral issues that stem from economic systems and the organizations that operate within them. In addition, there is analysis of individual business practices in the context of specific business disciplines. Meets Ethics General Education requirement.

#### **BUSA 372 Microfinance (3)**

The goal of the course is to help the student gain a practical understanding of the fundamental concepts of microfinance, assessing customer needs and expectations; designing new products and delivery mechanisms; the various lending methodologies; the debate around regulation and supervision; assessing the quality of the portfolio; gauging financial viability; addressing governance and cultivating effective donor relations. Finally, all of this will be attempted with an eye toward assessing the theological importance and relevance of microfinance when attempted from a Christian perspective.

#### **BUSA 380 Small Business Development (3)**

A survey of the entrepreneurial process and the various aspects of launching a new venture. Topics covered include organizational models and team formation; legal structures; idea definition; raising capital; sales and marketing; business and financial models; product and service development; management; operations; customer support and sustainability. Current thinking in the business as mission and transformational development movements will be surveyed. Students will form interdisciplinary teams around a specific business venture approved by the instructor. Each team will develop a business plan for their venture based on course guidelines

which will include an integration of the business as mission and transformational development models. Teams will critique each other's plans. Prerequisites: ACCT 141 and BUSA 120 and MRKT 230, or Instructor's consent.

#### **BUSA 381 Business Law I: The Legal Foundation for Business (3)**

Introduction to the American legal process with emphasis on the two foundations of the American legal system: property and contracts law.

#### **BUSA 382 Business Law II: The Legal Environment for Business (3)**

Study of selected legal principles applicable to business, including the law of agency, employment and labor law, environmental and consumer regulation, and international law. Prerequisite: BUSA 381.

#### **BUSA 385 Entrepreneurship (3)**

Surveys current topics in entrepreneurship including business-as-mission and the social entrepreneurship movement. It will also provide students with significant interactions with actual entrepreneurs and a field experience with an entrepreneurial firm or organization. Prerequisite: ACCT 141 and BUSA 120 and MRKT 230, or Instructor's consent.

#### **BUSA 391 Business Practicum (1-3)**

Practical business-related experience under professional supervision or supervised participation as a teaching assistant in departmental courses. Open to juniors and seniors in the Department of Management and Business. Other students by department approval.

#### **BUSA 450 Corporate Finance (3)**

An advanced course in corporate finance. The core material will include working capital management, financial planning and forecasting, risk analysis in capital budgeting, capital structure theories, raising capital, and risk management. In addition, at least one current issue will be analyzed (e.g., corporate social responsibility). Prerequisites: STAT 281, BUSA 350.

#### **BUSA 459 Strategic Management (3)**

Integrative course that focuses on strategic planning, policy formulation, and corporate-wide decision making through the use of comprehensive case problems. Prerequisites: BUSA 120, MRKT 230, CIS 190, BUSA 350 and BUSA 381.

#### **BUSA 491 Independent Study in Management and Business (1-3)**

Independent study in management and business (offered on demand).

#### **BUSA 497, 498 Major Honors (3, 3)**

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5; GPA of 3.75 in the major; and departmental approval required for enrollment. Open only to seniors. (These courses may not be used to fulfill major requirements, but will be free electives.)

## **C**

#### **CHEM 101 Introductory College Chemistry (3)**

This course is designed to prepare students for continuation into the CHEM 105/CHEM 106 sequence by focusing on the application of mathematical calculations in chemistry as well as



basic chemical topics. Topics include exponents, logarithms, solving equations, dimensional analysis, the mole, stoichiometry, energy and bonding. Three lecture hours per week, does NOT meet General Education Laboratory Science requirement.

#### **CHEM 102 Chemistry for Living (3)**

Consideration of various concepts basic to chemistry and the impact of chemistry on the current world scene. For non-science majors, assuming no high school chemistry. Two lectures and three hours of laboratory per week. Meets General Education Laboratory Science requirement.

#### **CHEM 103 Chemical Science (4)**

Principles of chemistry for allied health majors. Topics include the periodic table, chemical bonding, stoichiometry, chemical equilibria and molecular structure and properties of organic and biological molecules. Three lectures and three hours of laboratory per week. Meets General Education Laboratory Science requirement.

#### **CHEM 105 General Chemistry I (4)**

Solution chemistry, stoichiometry, chemical analysis, atomic structure and chemical bonding, the periodic table, and states of matter. The laboratory experience utilizes a discovery approach. Three lectures and three hours of laboratory per week. Prerequisite: high school chemistry and a passing score on the Toledo Placement exam (28-34 and at least 14 out of 20 on the math portion of this placement exam, or a score of 35 or more). Meets General Education Laboratory Science requirement.

#### **CHEM 106 General Chemistry II (4)**

Kinetics and thermodynamics of chemical reactions, types of chemical reactions, equilibrium and applications in aqueous solution, and electrochemistry. Three lectures and three hours of laboratory per week. Prerequisite: CHEM 105.

#### **CHEM 204 Introduction to Organic Chemistry (4)**

Essential foundations of organic chemistry for students needing a one semester survey of organic chemistry. Includes natural and synthetic substances, their properties, reactions, and preparation. Three lectures and three hours of laboratory per week. Prerequisite: CHEM 106 or Instructor's consent.

#### **CHEM 221 Chemical Analysis I (4)**

The theoretical basis and techniques necessary to accurately and precisely measure the chemical composition of natural and artificial materials. Specific topics include experiment design, sampling, and validation of results with supporting statistics; gravimetric and titrimetric analysis with supporting acid-base and solubility chemical equilibrium theory; introduction to instrumental techniques including molecular spectroscopy (UV-Vis), and chromatographic methods (GC and HPLC). Three hours of lectures and four hours of laboratory per week. Prerequisite: CHEM 106 or equivalent.

#### **CHEM 222/322 Independent Research (1-3)**

Independent experimental research intended for sophomores and juniors under the direction of a faculty mentor. One to two credits of research will culminate in a written report, with the option of presenting a poster at a campus research symposium. Students taking three credits of research in one academic year must complete the written report and a poster presentation for the fall or spring research symposium. A maximum of three credits of research can count towards the chemistry, biochemistry, or chemistry education

major as elective credits. Any additional credits in 222, 322, or 422 must be taken as College-wide free electives. Prerequisite: Mentoring Instructor's consent.

#### **CHEM 309 Organic Chemistry I (4)**

The characterization and chemistry of simple carbon compounds as organized by functional group. This includes nomenclature, three-dimensional structure, physical properties, reaction mechanisms, kinetics, thermodynamics, reactions, and NMR and IR spectroscopy. Three lectures and four hours of laboratory per week. Prerequisite: CHEM 106.

#### **CHEM 310 Organic Chemistry II (4)**

The characterization of carbon compounds with increasing complexity. Emphasis will be on the chemistry of aromatic compounds, carbonyl compounds, amines, and biological molecules that contain multiple functional groups. This includes nomenclature, physical properties, reaction mechanisms, kinetics, thermodynamics, reactions, multi-step syntheses, and the integration of spectroscopic methods for the structure determination of organic molecules. Three lectures and one four-hour laboratory per week. Prerequisite: CHEM 309.

#### **CHEM 321 Chemical Analysis II (4)**

A continuation of the theoretical basis and techniques necessary to accurately and precisely measure the chemical composition of natural and artificial materials. Specific topics include an expansion of experiment design, sampling, and validation of results with supporting statistics; titrimetric analysis with supporting compleximetric and oxidation-reduction chemical equilibrium theory; introduction to instrumental techniques including atomic spectroscopy (AAS, AES, and APS), chromatographic methods (GC/MS and HPLC), and electrochemical methods. Three lectures and three hours of laboratory per week. Prerequisite: CHEM 221, 310, 337, or Instructor's consent.

#### **CHEM 337 Physical Chemistry I (3)**

An introduction to modern physical chemistry including classical thermodynamics, statistical thermodynamics, equilibrium, and kinetics. Prerequisites: CHEM 106 and a grade of C- or better in MATH 112.

#### **CHEM 338 Physical Chemistry II (4)**

An introduction to modern physical chemistry including quantum mechanics, computational methods, approximation methods, and spectroscopy. Three hours of lecture and three hours of laboratory per week. The laboratory experiments illustrate principles and theories from both CHEM 337 and CHEM 338. Prerequisites: CHEM 337, and either MATH 210 and MATH 270 or MATH 211. (Alternate years, offered 2014-2015.)

#### **CHEM 340 Environmental Chemistry (4)**

The chemistry of surface and ground water, the atmosphere, and the geosphere, how these interact with each other and the biota, with particular emphasis on the impact of human activity. The laboratory consists of analytical methods used to measure pollutants in these parts of the environment. Three lectures and one three-hour laboratory per week. Prerequisite: CHEM 204, CHEM 309 or Instructor's consent. (Alternate years, offered 2013-2014.)

**CHEM 342 Advanced Synthesis and Spectroscopy (3)**

One four-hour laboratory and two seminars per week. Laboratory will consist of the synthesis and analysis of organic and inorganic chemicals. The seminar includes instruction in interpretation of spectroscopic data, particularly modern NMR techniques; discussion of the results of the synthesis and analysis; and guidance in the presentation of written reports. (Alternate years, offered Spring Term 2014) Prerequisite: CHEM 310.

**CHEM 360 Topics in Chemistry (3-4)**

Selected topics in chemistry not currently included in course offerings. May be repeated for additional credit as the topic/study changes. Prerequisites: Determined by Instructor.

**CHEM 361 Inorganic Chemistry (4)**

Periodic variation of physical and chemical properties of the elements; bonding, structure, and spectroscopy of inorganic compounds, including coordination compounds; types of inorganic reactions. Three lectures and three hours of laboratory per week. Concurrent or prerequisite: CHEM 337. (Alternate years, offered 2013-2014.)

**CHEM 390 Junior Chemistry Seminar (1)**

An introduction to the chemical literature, including the nature of the chemical literature, the process of doing a literature search, and the reading and critiquing of current papers. Students will give oral presentations based on papers in the literature. The course also includes a unit on chemical safety. Prerequisite: Junior Standing. Required of all chemistry, chemical education and biochemistry majors.

**CHEM 391 Chemistry Practicum (1-3)**

Exposure to the chemical field through direct participation. May involve experience as a laboratory assistant for a course, as an instrumentation assistant, or off-campus employment. Open to juniors and seniors in the departments of the natural sciences. Maximum of three credits per semester with the total not exceeding 4 credits. These credits cannot count towards the chemistry elective for either the major or a minor. Instructor's consent required.

**CHEM 393 Research Methods (1)**

Offered during the fall and spring semester for third-year students. The course will focus on research methodology including advanced literature searching, experimental design, and modeling. Students working under the guidance of a departmental faculty member will select a research topic, conduct a thorough literature review, and write a research proposal. One lecture per week. Prerequisites: Junior standing and 3.0 GPA or departmental consent. Cross-listed with BIOL 393.

**CHEM 407 Secondary Science Curriculum and Instruction (2)**

A seminar emphasizing disciplinary content issues that are specific to biology, chemistry, or environmental education teaching. Areas of focus include curricular and instructional decision-making processes; classroom management strategies; assessment techniques; adaptations for exceptional learners; instructional technology applications; and professional development. Concurrent enrollment with EDUC 420, TEP 435, and PSYC/HDFS 311. Prerequisite: admission to the Professional Semester. Cross-listed with BIOL 407.

**CHEM 409 Advanced Organic Chemistry (3)**

Application of molecular orbital theory, thermodynamics and kinetics to the determination of organic reaction mechanisms and identification of reactive intermediates. Prediction of reaction mechanisms as applied to both organic and biological systems. Prerequisite: CHEM 310. (Alternate years, J-Term, 2015.)

**CHEM 410 Biochemistry I (4)**

Types of biochemical compounds with emphasis on structure/function relationships, i.e., bioenergetics, catabolism and human nutrition. The laboratory includes the isolation and purification of proteins, lipids and carbohydrates; qualitative and quantitative analysis of biological compounds; and enzyme kinetics. Three hours of lecture and three hours of lab per week. Prerequisite: CHEM 310 or Instructor's permission.

**CHEM 412 Biochemistry II (4)**

Anabolic reactions of organisms including DNA replication, RNA transcription, and protein synthesis with an emphasis on reading the current literature. Three lectures and four hours of laboratory per week. Prerequisite CHEM 410.

**CHEM 422 Senior Research (1-3)**

Offered during the fall and spring semester for fourth year students. Students will carry out the research project proposed in the Research Methods course under the direction of a faculty mentor. Faculty and students will meet during the semester for progress updates and to discuss other topics as needed. The semester will typically culminate with the submission of a written thesis and an oral presentation to an open gathering that is advertised campus wide. Prerequisites: Senior year standing and completion of the CHEM 393 Research Methods or Instructor's consent. Maximum of three credits per semester with the total not exceeding 5 credits. Cross-listed with BIOL 422/NUTR 422.

**CHEM 461 Organometallic Chemistry (3)**

Survey of organometallic compounds and their reactions. Course will examine bonding in organometallic complexes, reactivity of the metal to carbon bond, ligand substitution reactions, oxidative addition and reductive elimination reactions, and homogeneous catalysis. Three lectures per week. Prerequisite: CHEM 337 and CHEM 361.

**CHEM 490 Senior Chemistry Seminar (1)**

Advanced work in the chemical literature to include leading class discussions on selected papers. Attendance at departmental seminars is required. The course also includes a unit on professional ethics in chemistry and biochemistry, as well as instruction on career planning. The Educational Testing Service's Major Field Test in Chemistry will be administered in this course and is a requirement for graduation. Prerequisite: Senior Standing or Instructor's consent. Required of all chemistry and biochemistry majors.

**CHEM 491 Independent Study (1-3)**

Independent study of an advanced topic under the supervision of an instructor whose approval must precede the student's enrollment. This course rubric is not intended for laboratory research. These credits may count towards the chemistry elective. Offered on demand. Instructor's consent required.

**CHEM 495 Capstone: Natural Sciences (3)**

Historical, philosophical, and ethical aspects of the natural sciences, with some discussion of various models for relating science and Christian faith. Open only to Senior majors in the Departments of Biological Sciences and Chemistry and Biochemistry and to Biopsychology majors. Prerequisite: PHIL 101 or 102.

**CHEM 497, 498 Major Honors (2-3, 2-3)**

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5, CHEM 393 Research Methods, and departmental approval required for enrollment.

**CHIN 101, 102 Fundamentals of Chinese I, II, (3, 3)**

Intensive study of the fundamentals of Mandarin Chinese grammar within a communicative approach to language learning. Introduction to reading and writing Chinese and to the Chinese culture. Meets General Education Languages and Cultures requirement.

**CHIN 201 Intermediate Chinese (3)**

Continued study of grammar principles and the Chinese writing system with practical application in conversation, reading, and writing. Continued study of the Chinese culture through selected readings. Prerequisite: CHIN 102 or the equivalent. Meets General Education Languages and Cultures requirement.

**CHIN 206 Intermediate Chinese II (3)**

A continuation of CHIN 201 with a focus on further acquisition of reading, writing, listening, and speaking skills in Mandarin Chinese at the intermediate level, as well as cultural content. Prerequisite: CHIN 201 or Instructor's consent.

**CHIN 260 Cross-Cultural: China (3)**

This three week cross-cultural study course allows students to experience China, the second largest economy in the world. Through a short-term study in Hangzhou, a renowned metropolis, students will participate in a summer language and culture program at the International Exchange Center of Zhejiang University of Technology. In the first week, students will stay at the International Exchange Center of Zhejiang University of Technology in Hangzhou. On the second and third week, students will travel to three other large cities: Shanghai, Xi'an, and Beijing.

**CHIN 301 Advanced Chinese (3)**

Acquisition of listening, speaking, reading and writing skills at the advanced level in Chinese. Study of Chinese culture through the reading of Chinese narrative and poetry. Prerequisite: CHIN 206 or Instructor's consent.

**CHIN 320 Special Topics in Chinese (3)**

The study of selected topics in Chinese at the advanced level. Student writing in Chinese at the advanced level. Prerequisite: CHIN 206 or Instructor's consent.

**CHIN 391 Independent Study (1-3)**

Advanced language study or research in Chinese.

**CHRM 099 Opportunities in Christian Ministries (1)**

Surveys the opportunities available to Christian Ministries majors. The emphasis is on interaction with persons who are serving in ministry positions. (Pass/Fail grade only.)

**CHRM 210 Theology of Ministry (3)**

This course explores the nature, authority and responsibility of the minister. More specific topics include the minister's relation to the general church and community, methods of ministerial work, the conducting of church services, and general church administration. Students will also be required to participate in Spiritual Formation groups that meet weekly during the chapel period. Students must have sophomore status to register for this course. Course Fee - \$50.

**CHRM 220 Introduction to Christian Mission (3)**

This course will be a general introduction to Christian missions and to the global dimensions of the Christian faith. The biblical/theological, historical, and current global contextual foundations for Christians witness will be reviewed, and strategies for personal and communal mission participation in light of these foundations will be surveyed. Students will also be required to participate in Spiritual Formation groups that meet weekly during the chapel period. Students must have sophomore status to register for this course. Course Fee - \$50.

**CHRM 225 Field Experience in Christian Ministries (2)**

Field experience for students preparing for Christian ministry that provides observation and the development of an understanding of ministry roles. Students are expected to connect theoretical ideas with actions and decision-making processes associated with effective ministry. Prerequisite: CHRM 099.

**CHRM 227 Pre-Field Experience for Cross-Cultural Ministry (3)**

The development of appropriate resources (including funds), attitudes, strategies, and cultural learning techniques for cross-cultural ministry. Students are required to participate in an 8-10 week cross-cultural ministry experience during the following summer and participate in CHRM 393 the following fall. To be taken in the spring semester of the junior year by all students completing the Cross-Cultural Ministries concentration of the Christian Ministries major. Prerequisites: Junior standing and completion of SOAN 212, CHRM 220, and COMM 342.

**CHRM 235 Ministry with Youth I (3)**

The theoretical background of youth ministry is investigated with special attention given to the theological foundations of ministry with youth, the psychological characteristics of youth, the social manifestations of the youth culture, and qualities that enhance ministry with youth.

**CHRM 242 Christian Spirituality (3)**

This course provides an examination of the Christian experience of God, with attention to the symbols used throughout history to describe this experience. By reflecting on a variety of approaches to God, students develop a comprehensive view of spirituality in the Christian tradition. Reserved for Christian Ministries majors; other students need Instructor's consent to enroll.

**CHRM 243 Evangelism and Discipleship (3)**

This course examines biblical and historical understandings and practices of evangelism and discipleship. The relationship between evangelism, discipleship, and social action will be emphasized and applications will be made to local church contexts. Prerequisites: CHRM 099 and CHRM 210.

**CHRM 320 Biblical Theology of Mission (3)**

This course will examine the story of God's activity in the world as recorded in the Bible. A particular focus of the course will be the relationships between mission (God's activity) and missions (human activity) that are developed in the biblical record. Applications will be made to various North American and global contexts. Prerequisites: CHRM 099 and CHRM 220.

**CHRM 323 Worship (3)**

An introduction to the broad topic of worship, including such aspects as the theology of worship, the creation of worship materials, and the development of worship skills. Attention is also given to special worship services, the liturgical calendar, and the influence of culture on worship. Prerequisites: CHRM 099 and CHRM 210.

**CHRM 330 Organization and Leadership for Ministry (3)**

An introduction to the basic processes of organization and leadership in a variety of ministry settings, including congregations and parachurch ministries. Topics include financial planning, organizational management, and leadership recruitment, development, and training. Diverse cultural perspectives on leadership will also be explored and addressed. Prerequisites: CHRM 099 and CHRM 210.

**CHRM 336 Ministry with Youth II (3)**

The practice of youth ministry is demonstrated through activities that acquaint the students with sound methods of evangelizing, discipling, teaching, and counseling youth. Attention is also given to planning and managing a comprehensive program of ministry with youth. Prerequisites: CHRM 210 and CHRM 235.

**CHRM 338 Teaching for Christian Ministries (3)**

Study of the biblical, historical, philosophical, theological, and psychological foundations of Christian education with special emphasis on how they relate to the aim, content/method, teacher-student relationship, environment, and evaluation of Christian education. This theoretical framework is then applied to pedagogy and the development of curricular materials for Christian ministry. Prerequisites: CHRM 099 and either CHRM 210 or CHRM 220.

**CHRM 342 Pastoral Counseling (3)**

Role of the pastor in private, group, crises, referral, marriage enrichment, family, youth, and peer counseling. Prerequisites: CHRM 099 and CHRM 210.

**CHRM 343 Introduction to Preaching (3)**

The discipline of preaching is examined within the larger context of the church's call to proclaim the gospel. Various methods of sermonizing and types of sermons are considered, with the Bible regarded as the primary source of sermon material. Practical experience in sermon preparation, delivery, and critique are key components of the course. Prerequisites: CHRM 099 and 210.

**CHRM 351 Topics in Congregational Ministries (3)**

Study of a selected theme relating to Congregational Ministries, drawing primarily upon biblical studies and theology. Limited to upper-division Christian Ministries students. Prerequisites: CHRM 099 and CHRM 210.

**CHRM 352 Topics in Cross-Cultural Ministries (3)**

Study of a selected theme relating to Cross-Cultural Ministries, Intercultural Ministries, or Mission, drawing primarily upon biblical

studies and theology. Limited to upper-division Christian Ministries students. Prerequisites: CHRM 099 and CHRM 220.

**CHRM 353 Topics in Youth Ministries (3)**

Study of a selected theme relating to Youth Ministries, drawing primarily upon biblical studies and theology. Limited to upper-division Christian Ministries students. Prerequisites: CHRM 099 and CHRM 210.

**CHRM 360 Models of Christian Ministry in the City (3)**

Exploration of the theologies and practice of Christian ministry in the city. Diverse models of urban mission are examined through tours, guest lectures, and readings. Prerequisites: CHRM 099 and either CHRM 210 or CHRM 220.

**CHRM 391 Practicum (1-3)**

Supervised fieldwork congregational or youth ministries. Senior status and Instructor's permission is required for admission.

**CHRM 393 Post-Field Experience for Cross-Cultural Ministry (2)**

A continuation of CHRM 227 focusing on reflection and analysis of the summer cross-cultural ministry experience through debriefing exercises. To be taken in the fall semester of the senior year by all students completing the Cross-Cultural Ministries concentration of the Christian Ministries major. Prerequisites: Senior standing and completion of CHRM 227.

**CHRM 491 Independent Study (1-3)**

Selected topics pursued independently with frequent consultation with faculty supervisor. Prerequisites: CHRM 099 and either CHRM 210 or CHRM 220.

**CHRM 493 Christian Ministries Seminar (3)**

This course serves as the capstone for Christian Ministries majors. The preparation and presentation of a major research project related to ministry is the central agenda for the course. Students will also be required to participate in Spiritual Formation groups that meet weekly during the chapel period. Senior status is required for admission. Prerequisites: CHRM 099 and either CHRM 210 or CHRM 220. Course fee - \$50.

**CHRM 497, 498 Major Honors (3, 3)**

Independent research program for students who have a strong academic record (3.5 cumulative GPA) for a minimum of five previous semesters of college study. Departmental approval required for enrollment. Prerequisites: CHRM 099 and either CHRM 210 or CHRM 220.

**CIS 171 Problem Solving with Computers (3)**

This course is a broad and hands-on exposure to the capabilities and uses of computer software. Course projects introduce students to problems that computers can solve and various tools (programs or applications) used for these solutions. These tools include developing Internet web pages, using graphics, spreadsheets, and database applications. Students participate in a team project to design and launch a website that will benefit web users practically and/or spiritually. Meets General Education Mathematical Sciences requirement.

**CIS 180 Introduction to Computer and Information Science (3)**

This course provides a unified introduction to the field of Computer and Information Science (CIS). Students will learn

fundamental concepts, develop technical and quantitative skills, and explore the application and ethical impact of computing technologies in various contexts, including research, business, service organizations, education, and society at large. Meets General Education Mathematical Sciences requirement. (Offered Fall Semester only.)

### **CIS 181 Computer Programming I (3)**

This course introduces computer programming using the Python programming language. Students will develop programming skills through a series of projects that teach general programming techniques, with an emphasis on interactive, visual programs. CIS 181 is designed for majors in Computer and Information Sciences, Digital Media, Engineering and Mathematics. Two lecture periods and two one-hour laboratories per week. Meets General Education Mathematical Sciences requirement.

### **CIS 190 Strategic Use of Information Technology (3)**

This course introduces students to the strategic, tactical and operational aspects of information technology (IT) as it relates to business. It surveys a broad range of topics, challenging students to understand the strategic relevance of IT to every aspect of business including, but not limited to quality, innovation, globalization, competitive advantage, collaboration, and outsourcing. The course also examines representative best practices of common IT business tools, including MS-Excel, Access, Word and PowerPoint, as well as collaboration tools.

### **CIS 191 Web Development I: Client Side (3)**

This course introduces web site design and development using EXtensible HyperText Markup Language (XHTML) and Cascading Style Sheets (CSS). Students learn standard XHTML and CSS and apply that to create and develop a web site. This course is open to any student in any discipline that desires to understand how web sites are created and developed. Meets General Education Mathematical Sciences requirement. (Offered Spring Term only.)

### **CIS 251 Hardware and Software (3)**

Examines the basic components of hardware and the software of a variety of computers ranging from desktops to personal digital assistants. In addition to understanding the theory of how things work, students will be expected to troubleshoot and find solutions to actual computer problems without knowing in advance whether the problems actually exist or whether the problems are caused by the hardware, software, or both. Prerequisite: CIS 180 or CIS 190.

### **CIS 283 Business Systems Applications (3)**

This course acquaints students with a variety of ways in which computer applications are created, evaluated and used in a business environment. Students will participate in the application development process using an object-oriented language such as Visual Basic. Prerequisites: CIS 181 or equivalent. (Letter grade only. Offered Fall Semester, odd years.)

### **CIS 284 Computer Programming II (3)**

This course introduces object-oriented programming using the Java programming language. Students will learn to define their own classes and to understand possible relationships between classes in an inheritance hierarchy. These more general OOP principles will be illustrated through a variety of practical topics including mathematical calculations, string manipulation, file I/O, and basic GUI design. As with CIS 181 Computer Programming I, we will

spend a significant amount of time in the lab writing programs that apply ideas discussed in class. Two lecture periods and two one-hour laboratories per week. Prerequisite: CIS 181. (Offered Spring Term only.)

### **CIS 287 Introduction to Game Design (3)**

Through a series of game design and development projects, students will be introduced to a range of video game genres and factors influencing games' playability, entertainment, and educational value. Students will play and then evaluate, from a Christian perspective, both commercial games and games created by their peers. Students will employ a requirements-based iterative software development process, working with a typical set of software tools used to create prototype video games. Prerequisite: CIS 181. (Offered J-Term, odd years.)

### **CIS 291 Web Development II: Server Side (3)**

This course extends CIS 191, Web Development: Client Side to dynamic web site development using server-side technologies. Students will build a web server to provide the home for the interactive, data-driven web site they will create. Topics include: server-side scripting languages, such as PHP and Java Server Pages, interfacing web applications with databases, and advanced topics in hypertext markup languages and client-side scripting. Security issues will be addressed including access control and secured transmissions and modern software tools for the server-side web application development will be introduced. Development for alternative devices such as mobile and hand-held devices will be introduced. Prerequisite: CIS 191. (Offered Fall Semester only.)

### **CIS 315 Introduction to Mobile Application Design (3)**

Through semester-long mobile application design and development projects, students will be introduced to the range of hardware, software and communication technologies needed to support a web application targeted at mobile computing devices. Students will evaluate, considering both user-oriented and technology-oriented criteria, commercially developed mobile computing applications and applications created by their peers. Students will employ a requirements-based iterative software development process, working with a typical set of software tools used to create prototype mobile applications. Prerequisites: CIS 191 and CIS 284. (Offered Fall Semester, odd years.)

### **CIS 332 Database Concepts (3)**

Relational databases. Semantic object modeling. SQL in both local and client-server environments, in both embedded and stand-alone applications. Prerequisite: CIS 284 or CIS 283. (Offered Fall Semester only.)

### **CIS 335 Software Engineering I (3)**

The course introduces students to the discipline of software engineering through a series of selected readings, class discussions, and practical learning experiences. The course will survey the issues, approaches, and tools for addressing key areas of software engineering. Including software requirements definition, software architectures, software analysis/design, technical software development, alternative software life cycle models, software process and project management, open source software development, software version and configuration management, software quality assurance and testing. Prerequisite: CIS 332. (Offered Fall Semester, odd years.)

**CIS 343 Introduction to E-Commerce (3)** This course provides an introduction to both the strategic and the technical essentials of developing and managing e-commerce sites. Students will research web design and build their own e-commerce site as a final project, with practical application of the principles emphasized in the course material. Team projects will research and report on e-commerce topics throughout the course. Extensive use of Internet research techniques will be emphasized. Topics will include Internet security and authentication techniques, website design and management issues, web access to databases, Internet marketing strategies, electronic payment issues, and enterprise E-commerce tools. Prerequisites: CIS 190 or 191. (Offered Fall Semester, odd years.)

**CIS 381 Information Systems and Managers (3)**

This course explores the way information technology is used to support the decision-making process of managers at all organizational levels. It is designed to show students a variety of ways in which computer-based information systems are used in the business environment. Special attention is given to computer user support and ethical issues in the management of information systems. Although it is not required for this course, the recommended sequence for CIS majors is: CIS 180 or CIS 190, CIS 181, CIS 284 or CIS 283, and then CIS 381. Prerequisite: CIS 180 or CIS 190. (Offered Spring Term only.)

**CIS 384 Elements of Computing Systems (3)**

Through a series of hardware and software tasks, students are introduced to the lower level design and operation of computers. Topics include hardware, computer architecture, assembly language, high-level languages and compiler design. Prerequisite: CIS 284. (Offered Fall Semester only.)

**CIS 385 Data Structures and Algorithms (3)**

Data and procedural abstraction for larger programs. Using the Java language for programming, topics include analysis of algorithms and the implementation of various internal dynamic data structures including strings, linked lists, queues, trees, and networks. These data structures are then used in applications including simulations, parsing, searching and sorting, and others. Prerequisite: CIS 284. (Offered Fall Semester only.)

**CIS 391 Computer Science Practicum (1-3)**

Practical experience under professional supervision, open to juniors and seniors with at least four computer science courses completed. Prerequisites: Instructor's and Advisor's consent required.

**CIS 401 Webmasters and Servers (3)**

This course examines that part of information systems that deals with the world of hyperlinks and the World Wide Web. In addition to learning and understanding the technologies used by web servers, creators, and maintainers this course examines the human side of providing long distance "people-less" interfaces for users. Students will learn how to help website owners determine costs, define requirements, develop alternatives, choose solutions, build, deploy, maintain, and evaluate sustainable websites. Ethics in dealing with data security and personal privacy on intranets, extranets, and the Internet as well as long-term societal implications of the technology will also be discussed. Extensive hands-on work developing, building, and maintaining websites and installing, setting up, and using web servers will be performed throughout the course. Prerequisites: CIS 191. (Offered Spring Term, even years.)

**CIS 411 Systems Analysis and Design Concepts (3)**

This course introduces students to the art and science of examining and creating information-based system solutions for business problems. Holistic systems approaches such as life cycle development are emphasized. Traditional structured methods, object oriented methods and emerging development paradigms are examined. Students apply systems analysis and design methods using several case studies. They also develop skills to review and assess system analysis and design models. Prerequisite: CIS 381. (Letter grade only. Offered Fall Semester only.)

**CIS 412 Systems Analysis and Design Applications (3)**

Students will form teams and complete a semester project. The project will require student teams to integrate material from other courses to plan, define, analyze, design, build, test and deploy an information system solution to solve a real business problem. Prerequisite: CIS 411. (Letter grade only. Offered Spring Semester only.)

**CIS 415 Data Communications and Networking (3)**

This course introduces the basics of data communication and networking. Students will develop an understanding of the general principles of networking as implemented in networks connected to the Internet. Specific attention will be given to the principles of network architecture and layering, multiplexing, network addressing, routing and routing protocols. Activities include setting up a local area network, the internet, security, network management and network performance analysis. Prerequisite: Junior or Senior Status. (Offered Fall Semester, odd years.)

**CIS 416 Operating Systems and Computer Architecture (3)**

This course introduces the primary functions of a modern operating system through a series of systems software programming assignments. Topics include: systems programming in a Unix / Linux environment, memory management, compilation and linking, process scheduling, virtual memory, system-level I/O, networking and concurrency. Prerequisite: CIS 384. (Offered Spring Semester, odd years.)

**CIS 418 Artificial Intelligence (3)**

This course provides students with an overview of philosophical, ethical, and technical issues related to the field of Artificial Intelligence. Topics include philosophical foundations, intelligent agents, search, knowledge representation & reasoning, inference, probabilistic/ stochastic techniques, natural language processing, and near-future trends in AI. Prerequisite: CIS 385. (Offered Fall Semester, even years.)

**CIS 432 Database Applications (3)**

Data-centered modeling of an actual corporate application. Client-server approaches to reusability and resource sharing. Prototyping and the project life cycle as approaches to software development. Student projects continue skill development in database design. Prerequisite: CIS 332. (Offered Spring Term only.)

**CIS 482 Organization of Programming Languages (3)**

Study of features of programming languages and of the methods used to specify and translate them. Topics include LISP, virtual machines, syntax and semantics, binding times, scoping rules, implementation choices, procedure calling, and parameter passing. Prerequisite: CIS 385. (Offered Spring Term only.)

**CIS 487 Interactive 3D Graphics (3)**

This course introduces mathematical concepts and programming techniques underlying interactive 3D computer graphics applications (including computer animation, video games and scientific visualization applications). Through a series of projects students will explore the OpenGL graphics API, by way of its current WebGL standard. Topics include modeling, viewing and projection transformations, as well as custom lighting and effects made possible through the OpenGL Shading Language. Prerequisite: CIS 385. (Offered J-Term, even years.)

**CIS 490 Topics in Computer Information Science (3)**

Each offering may deal with a different information systems area of current and practical relevance. Topics will be selected based on current and emerging issues, trends and technologies related to information systems. Such topics may include Decision Support Systems, Management Information Systems, computer simulation, advanced displays, intelligent interfaces, system planning and execution tools, Genetic Algorithms, Fuzzy Logic, Knowledge Based Systems, software metrics, information system acquisition models, computer forensics, and specific functional areas such as health care and financial information systems. This course may be taken more than once for credit (with a different topic). Prerequisite: CIS 190.

**CIS 491 Independent Study (1-3)**

Independent study in computer and information science under the direction of an instructor.

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**COMM 105 Fundamentals of Oral Communication (3)**

This course is a study of basic principles of human communication. Modes such as: Intra- and interpersonal, small group and public speaking are examined. Students will develop skills in sharing information and reasoned argument, and examine the ethical responsibilities of oral communicators. Meets General Education Oral Communication requirement.

**COMM 107 Introduction to Communication Seminar (1)**

Overview of the communication discipline with an introduction to the breadth of vocational options open to communication graduates.

**COMM 112 Newswriting (3)**

Introduction to journalism, including study and practice in writing news, with some attention to issues and controversies in journalism as they affect editors and writers.

**COMM 205 Principles of Public Relations (3)**

Introduction to the nature, history, and current practice of public relations, emphasizing appropriate communication strategies for different publics and contexts including corporate, non-profit and government agencies. The focus will be on the public relations process of research, action planning, communication, implementation, and evaluation. Ethics, media relations, and community relations are also discussed.

**COMM 211 Media in Everyday Life (3)**

Examines the way media messages are interpreted and used in everyday life. Special consideration of children and adults as consumers of information and entertainment with a specific focus on violence and gender conditioning will be given.

**COMM 217 Introduction to Film (3)**

Training in the language of cinema and video analysis and discussion of the basic issues involved in understanding film as an expressive cultural form. Areas covered include the shot, the scene, camera angles, lighting, montage, *mis en scene*, staging, camera movement, narrative structure, sound, film and digital media stocks, dialogue, and characterization.

**COMM 218 Mass Media and Society (3)**

Overview of the history, organization, economics, content, control, and effects of mass communications in the United States with some comparison to foreign systems.

**COMM 223 Introduction to Radio (3)**

An examination of the structure of the radio industry and radio stations. Topics will include radio programming formats, use of technology and broadcast sales.

**COMM 225 Digital Editing (3)**

Training in digital editing software programs such as Apple Final Cut Pro and Avid Digital Express as well as exposure to concepts of composition within scenes and issues of organization within the larger work (offered J-Term). Prerequisite: COMM 217. Priority given to film concentration students; others by permission of the Department Chair.

**COMM 226 16mm Filmmaking (3)**

This course provides a comprehensive introduction to techniques related to film production. Unlike digital production, film equipment requires much more intervention by the artist composing the film. Techniques dealing with the camera mechanism, lens, light, color, filters, and movement are the focus. Students will be better prepared for work in the film industry or within graduate studies programs after completing this course. Course fee - \$200, plus the cost of the final project materials. Prerequisite: COMM 217 and COMM 225. Priority given to film concentration students, exceptions may be granted by the Instructor or by permission of the Department Chair.

**COMM 227 Persuasive Film Production (3)**

This course will introduce students to the methods and practices of documentary, promotional, corporate and educational production for film. Students will learn to write persuasive non-narrative scripts, use professional interview techniques, perform camerawork, record sound in the field, research music and do specialized editing assignments. Each student will have the opportunity to engage in service learning by creating a documentary/promotional video for a client.

**COMM 241 Small Group Communication (3)**

Theory, research, and practice related to the structure and functioning of groups, including leadership, decision making, problem solving, and those variables requisite to effective communication within a group.

**COMM 247 Writing for Mass Media (3)**

Introduction to and practice in writing for mass media, with a focus on commercial copy for the electronic media of radio and television.

**COMM 251 Film History I: 1895-1960 (3)**

The course is a comprehensive survey of the medium, its genres and forms. While exploring the Hollywood studio system, European art

cinema, documentary and propaganda, and avant-garde/experimental cinema, we will also focus on technological changes (the advent of sound, color, and the age of television). Readings include essays and book excerpts introducing the films covered in the course and their methodologies, including the close analysis of particular movies, studies of national industries, and auteurist approaches. Prerequisite: COMM 217. (Alternate years, offered Fall 2013.)

#### **COMM 252 Film History II: 1960–Present (3)**

The course maps the evolution of several important tendencies in film history, including the rise of the “new waves” and Third World cinema, the role of women in the industry, the blockbuster, and the impact of globalization and digital technology on film. While exploring the developments in film production, distribution and exhibitions, individual films and artists are situated within their social, cultural, and political contexts. Prerequisite: COMM 217. (Alternate years, offered Spring Term 2015.)

#### **COMM 254 Screenwriting I (3)**

This course uses scripts from significant films and viewings of those same films to analyze the most important features of film narrative. This course gives an introductory foundation for all other courses in screenwriting and teleplay writing.

#### **COMM 255 Screenwriting II (3)**

In this intensive writing seminar, students progress from writing scenes for film and television to beginning consideration of writing an entire feature length/episode length script. Prerequisite: COMM 254.

#### **COMM 282 Topics in Media Studies (3)**

An in-depth exploration of a particular aspect of media studies. Subject matter may include areas such as digital media, popular culture or Christianity and media. The specific topic varies each semester. Please view course subtitle or consult with Instructor for details.

#### **COMM 301 Persuasion: Theory and Practice (3)**

Principles and techniques of the art of persuasion as applied to oral discourse.

#### **COMM 305 Magazine Writing (3)**

This journalism course teaches students how to write feature articles for magazines and newspapers, for both printed publications and online publications. It teaches planning, researching, and writing tasks that are essential to creating successful non-fiction feature articles.

#### **COMM 313 Relational Communication (3)**

Theory, research, and practice of relational communication focusing on issues between romantic partners, friends, and family. (Alternate years, offered Fall 2014.)

#### **COMM 319 Sports Broadcasting (3)**

This course examines the theory and application of techniques in sports broadcasting. We will examine a number of facets of sports broadcasting, including play-by-play, interviewing and anchoring sportscasts. Sports journalism and the history of this broadcasting specialty are also examined. A hands-on approach to the material is stressed. (Alternate years, offered J-Term 2014.)

#### **COMM 321 Global Indigenous Media (3)**

This course looks closely at the media productions of members of groups known today under categorizations such as “aboriginal” and “indigenous.” The course explores media and theory relating to ethnographic and collaborative works produced by ethnographic filmmakers alongside aboriginal communities. It also examines media produced independently by indigenous cultures from around the globe, in hopes of seeing commonalities and differences in them, as well as the ways their cultures have affected their production and storytelling techniques. Cross-listed with IDNW 200. Meets General Education Non-western requirement.

#### **COMM 325 Audio/Visual Newsgathering (3)**

This course will introduce students to basic techniques of reporting with and editing sound and video. The emphasis of this course will be on the use of digital audio and video recorders in the field to produce news stories for radio, television and the web. This course will provide fundamental instruction in standard audio and video editing software utilized in the industry.

#### **COMM 326 Digital Production (3)**

Intensive instruction and practice with the tools of recording and structuring digital media. Students will be grouped in four-person crews and will complete four to five digital media exercises dealing with lighting, sound, editing and other aspects of narrative and non-narrative construction. Prerequisites: COMM 217 and either COMM 226 or COMM 227.

#### **COMM 327 Latin American Cinema (3)**

The formal, aesthetic, historical and theoretical developments of Latin American cinemas will be examined. The course will also focus on the way in which particular cinematic strategies of expression emerge from specific cultural contexts and consider how specific national cinemas participate in and influence larger developments within cinema. Crosslisted with IDNW 200. Prerequisite: COMM 217.

#### **COMM 328 Methods and Issues in Film Studies (3)**

This course will explore the classic texts of film theory from the earliest dreams of what cinema might become in the 1890s through contemporary explorations of film and digital media and their role in global culture. Special attention paid to aesthetics, narrative theory, formal questions, cinema’s relationship to other arts, exhibition, understanding the audience and the viewing experience. Prerequisite: COMM 217.

#### **COMM 333 Business and Organizational Communication (3)**

This course explains how communication constructs and maintains organizational functioning at a variety of levels. For example, students learn about recruitment and socialization, conflict, communication technologies, coworker and team communication, leadership, and predominant theories of organizational communication.

#### **COMM 341 Communication Theory (3)**

Students will learn about a diverse array of communication theories and distinguish differences among basic types of communication theories, including social scientific/objective, interpretive/humanistic, and critical. Communication theories in the subfields of interpersonal communication, media, rhetoric, intercultural communication, and organizational communication are examined.



**COMM 342 Intercultural Communication (3)**

Analysis of communication variables in cross-cultural situations, focusing on the individual, social, and cultural bases of human communication. (Alternate years, Fall 2013.)

**COMM 351 Public Relations Writing (3)**

This course focuses building organization-public relationships with a variety of audiences through organizing, writing, and tailoring public relations materials such as news releases, brochures, newsletters, and web writing. Annual reports, basic graphic design, and the publication/printing process are also briefly introduced. The course culminates in preparation and presentation of a final writing portfolio. (Although not a prerequisite, COMM 205 is strongly recommended prior to taking COMM 351.)

**COMM 353 Crisis Communication and Media Relations (3)**

Analysis of corporate, institutional and governmental conflict and crises. Consideration given to nature of social conflict, negotiation, problem-solving, crisis planning, spokesperson training, news conferences and news releases. (Although not a prerequisite, COMM 205 is strongly recommended prior to taking COMM 353.)

**COMM 354 Interpersonal Conflict (3)**

Analysis of the nature and function of interpersonal conflict. Identification of personal conflict styles as well as productive and destructive communication strategies.

**COMM 359 Rhetorical Theory (3)**

This course surveys the history and major theories of rhetoric from its foundations in ancient Greece to more recent postmodern manifestations. Students will gain a conceptual framework for speaking and writing persuasively as well as evaluating the structure and function of rhetoric in society.

**COMM 360 Topics in Communication (3)**

Special investigation into specific areas and applications in the field of communication. Topics will vary with offerings.

**COMM 382 History and Theory of Digital Media (3)**

In this reading-intensive course, we will explore how digital media imitate, advance or withdraw from the accomplishments of older devices, how artifacts of specific media become desirable outcomes in others, and how these past processes impact the design and innovation of new tools. We will define new media and discuss the various applications of digital technology in contemporary culture (filmmaking, YouTube and social networks, e-books, blogs, architecture and museums).

**COMM 390 Radio Performance Practicum (1)**

Students who perform assigned airshifts totaling at least 15 hours, according to the standards set out in the WVMM handbook, and meet specified practicum criteria may receive one elective credit hour per semester. May be repeated for a maximum of four credit hours per student.

**COMM 391 Communication Practicum (1-3)**

Work experience under professional supervision in such areas as broadcasting, organizational communication, Christian communication, public relations and information, advertising, entertainment, and visual media. Open to junior and senior communication students who have completed at least four communication courses. (Pass/Fail grade only.)

**COMM 392, 492 Student Media Lab (1-3)**

This course is designed to provide oversight coordination and instruction for the production of student media. Students will be introduced to the basic processes of production associated with different media, will be engaged with questions related to the ethical and professional practice of journalism and media in a college context, and will be exposed to a model of multi-platform media production that is increasingly common in the world of journalism at large. Students taking this course for credit will be receive credit hours commensurate to their responsibilities in the production process.

**COMM 425 Multimedia Storytelling (3)**

This advanced multi-media course examines the production and design of online journalistic content. Topics will include online storytelling, web site planning, organization and production. Students will contribute to a comprehensive multi-media news web site, taking advantage of the convergence of print and broadcast media. Additionally, conceptual and ethical issues related to publishing on the Internet will be discussed. Cross listed with ENGL 305.

**COMM 426 Senior Public Relations Campaign Project (3)**

Senior Communication majors will have a "hands-on" capstone opportunity by providing public relations consultation to a non-profit client. The project will be under the direction of a faculty advisor and culminate in a presentation of the group's findings to the client. Participation will be limited to a select group of students chosen via an application process conducted by the instructor.

**COMM 491 Independent Study (1-3)**

Independent study of research in communication under the supervision of an instructor whose approval must precede enrollment.

**COMM 493 Communication Senior Seminar (3)**

This course instructs students in vocation and professional development, examines the relationship between faith and students' academic discipline, and engages advanced research in communication ethics.

**COMM 497, 498 Major Honors (3, 3)**

Independent research program for junior- and senior-level students who have strong academic record for five previous semesters of college study. Prerequisite: Overall G.P.A. of 3.5; major G.P.A. of 3.7; and departmental approval.

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**CRIJ 101 Introduction to Criminal Justice (3)**

Evolution of the adult criminal justice system, primarily in the U.S., focus on Pennsylvania, with some attention to cross-cultural comparison and contrast; issues in defining "criminal" and "justice"; critical discussion of steps and processes in criminal justice system and various public demands for change. Meets General Education Social Sciences requirement.

**CRIJ 201 Introduction to Law Enforcement (3)**

The course examines historical and contemporary practices and trends in law enforcement concerning the role of police personnel in relationship to community, courts, corrections, and constitutional limitations. The following aspects of the police occupation are discussed: necessary qualifications to become a

police officer, recruitment process, job analysis, the selection methods, and the police training practices.

**CRIJ 259 Criminal Law and Court Procedures (3)**

Evolution of and difficulties in defining and codifying criminal law; discussion and ramifications of key laws/cases for practitioners in adult and juvenile justice systems; rationale for and issues in multi-level (centralized and decentralized) systems; basic legal terminology for practitioners in law enforcement, court services, and corrections. Prerequisite: CRIJ 101.

**CRIJ 309 Juvenile Delinquency (3)**

This course will examine the sociological and criminological phenomena of juvenile delinquency and explore the historical development of the juvenile justice system. Students will gain a basic understanding of juvenile delinquency by analyzing the scope of the problem, interpreting theories of causation and resolution, and evaluating current programming in this field. Prerequisite: CRIJ 101 or SOAN 101.

**CRIJ 348 Ethics in the Criminal Justice System (3)**

An introduction to ethical issues relating to various aspects of the criminal justice system such as the morality of the types of punishment, the death penalty, justice in the courts, and police conduct. Prerequisite: IDCR 151. Meets General Education Ethics in the Modern World requirement.

**CRIJ 366 Corrections: Incarceration, Probation, Parole (3)**

Evolution of and debates concerning community and non-community based correctional programs; relationships between correcting, reforming, rehabilitating, and punishing; tensions between protection of public safety and rights of the accused; evaluation of incarceration, probation, parole, diversion, alternate, and restorative justice programs; issues in "proactive" and "reactive" debate. Prerequisite: CRIJ 101.

**CRIJ 375 Criminal Justice Theories (3)**

This course focuses on the causes and meaning of crime with emphasis on the sociological and criminological theories that explain causes of crime and solutions to criminal behavior. Particular emphasis will focus on Victimology and the criminal justice system to victims.

**CRIJ 382 Topics in Criminal Justice (3)**

Selected topics in criminal justice not currently included in course offerings. Possible topics may include women in the criminal justice system, comparative law enforcement, ethics and criminal justice, and international justice issues. May be repeated for additional credit as the topic/study changes. Prerequisites: CRIJ 101, three additional credits in criminal justice courses, and Instructor's consent.

**CRIJ 389 World Justice Systems (3)**

This course examines the criminal justice systems from different countries and cultural influences comparing and contrasting those systems with one another and with the criminal justice system in the United States. The focus is on the diversity of legal approaches and philosophies of justice that exist across the globe with special attention to the ways that culture, religion, politics, and economics influence social control. The course will also specifically integrate discussion and synthesis of how restorative justice fits into criminal justice around the globe. Meets Pluralism requirement.

**CRIJ 444 Evidence, Search and Seizure (3)**

This course will focus on the evolution, particularly within the most recent five years, of the law relating to the Fourth Amendment to the Constitution, the Connecticut Constitution, and statutes, as it applies to arrest, search, and seizure. An understanding of the fundamental concepts of reasonable expectation of privacy, governmental action, reasonable suspicion, and probable cause should be mastered by students prior to taking the course, as only a limited review of these principles will be included in the course. Particular emphasis will be given to changes in the law necessitated by newly developed technologies, such as thermal imagers, electronic surveillance techniques, and the Internet. The course will focus on the emerging trends in criminal justice balancing the advances in technology and the issues of response to terrorism with the requirements of the law. Prerequisite: CRIJ 101.

**CRIJ 452 Criminal Justice Seminar (3)**

Students will process and analyze internship experiences as well as prepare for professions in criminal justice. Students will integrate this with theory as well as theological and ethical concerns. A systematic analysis of criminal justice systems issues and practice will be stressed.

**CRIJ 491 Independent Study (1-3)**

Junior and senior students with at least a 3.0 GPA in their major may select a problem for independent investigation in a special area of Criminal Justice. Prerequisites: Instructor's consent and Department Chair.

**CRIJ 497, 498 Major Honors (3,3)**

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5 and departmental approval required for enrollment.

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## D

**DANC 101 Ballet I (1)**

Fundamentals of classical ballet technique. Emphasis placed on proper placement, technique and classical ballet vocabulary. Meets General Education Arts requirement when taken with DANC 305. Meets General Education Health and Physical Fitness requirement (PHED Activity course). This course may count for only one General Education requirement.

**DANC 102 Jazz and Dance Theatre I (1)**

An introductory-level studio course in jazz dance. This course will focus on basic jazz steps, isolations, strength, jumps, and turns. Prerequisites: Ballet I or instructor approval. Meets General Education Arts requirement when taken with DANC 305. Meets General Education Health and Physical Fitness requirement (PHED Activity course). This course may count for only one General Education requirement.

**DANC 103 Modern I (1)** Beginning level of modern technique using basic component of space, time and energy. Class work will focus on basic modern techniques combined with dance improvisation techniques. Prerequisite: Ballet I or instructor approval. Meets General Education Arts requirement when taken with DANC 305. Meets General Education Health and Physical Fitness requirement (PHED Activity course). This course may count for only one General Education requirement.

**DANC 104 Tap I (1)**

The course establishes the fundamentals of tap technique. Proper executions of steps such as shuffle, flap, ball change, pull backs, and pickups, among others. Prerequisites: Ballet I or instructor approval. Meets General Education Arts requirement when taken with DANC 305. Meets General Education Health and Physical Fitness requirement (PHED Activity course). This course may count for only one General Education requirement.

**DANC 105 Dance Pedagogy (2)**

An introduction to dance pedagogy. This course will explore aspects of teaching dance to children (K-12) in both public and private sectors. Students will consider historical trends and as well as current methods of dance pedagogy.

**DANC 111 Dance Performance Ensemble (0.5)**

Participation in dance performance ensembles as supervised and approved by the Dance faculty. Four-semester requirement for Dance majors. (Pass/Fail grade only.)

**DANC 201 Ballet II (1)**

Fundamentals of classical ballet technique. Emphasis placed on proper placement, technique and classical ballet vocabulary at an intermediate level. Prerequisites: Ballet I or Instructor's consent.

**DANC 202 Jazz II (1)**

An introductory-level studio course in jazz dance. This course will focus on basic jazz steps, isolations, strength, jumps, and turns. Students who have taken Jazz I will continue development of jazz techniques. Prerequisite: Jazz and Dance Theatre I or Instructor's consent.

**DANC 203 Modern II (1)**

Beginning level of modern technique using basic component of space, time and energy. Class work will focus on basic modern techniques combined with dance improvisation techniques. Students who have taken Modern I will work toward an intermediate level of modern techniques. Prerequisite: Modern I or Instructor's consent.

**DANC 204 Tap II (1)**

The course establishes the fundamentals of tap technique. Proper executions of steps such as shuffle, flap, ball change, pull backs, and pickups, among others. Students who have taken Tap I will work toward an intermediate level of tap dance. Prerequisite: Tap I or Instructor's consent.

**DANC 301 Ballet III (1)**

For students with extensive ballet training. Intermediate to advanced ballet technique with use of complex classical ballet vocabulary, musicality and artistry. Prerequisite: Ballet II or Instructor's consent.

**DANC 302 Jazz and Dance Theatre III (1)**

Building on Jazz I and II, this advanced jazz dance technique course includes more advanced use of isolations, turns, jumps and combinations of jazz movement from various American jazz dance styles. Prerequisite: Jazz I/II, Ballet I/II or Instructor's consent.

**DANC 303 Modern III (1)**

Intermediate/advanced level of modern dance. Deeper understanding and execution of modern techniques and improvisation. Prerequisite: Modern I/II or Instructor's consent.

**DANC 304 Dance Ministry (2)**

Explore liturgical dance and various ways dance can be used as a ministry. Learn how to create liturgical dance, organize a dance team and how to perform on church stages. Prerequisite: Ballet I/Ballet II or Instructor's consent.

**DANC 305 Dance History (2)**

Origins of dance to the present. Dance as it has developed from ancient, religious and ritualistic movement to post-modernism. Emphasis upon ancient forms, courtly life, the development of ballet, modern dance, post-modernism, and jazz.

**DANC 314 Improvisation (2)**

Introduction to the world of dance improvisation in terms of spatial design, dynamics, rhythm, and motivation. This course explores the utilization of dance improvisation as a fundamental choreographic tool and a vehicle for creative thinking.

**DANC 381 Dance Practicum (1-3)**

Dance work under the supervision of a dance professional. Open to junior and senior dance majors who have completed at least four Dance courses. Prerequisite: Four DANC courses.

**DANC 401 Ballet IV (1)**

For students with extensive ballet training. Advanced ballet technique with use of complex classical ballet vocabulary, musicality and artistry. This level would include pointe work. Prerequisite: Ballet I-III or Instructor's consent.

**DANC 402 Jazz and Dance Theatre IV (1)**

Building on Jazz I, II, and III this course explores dance technique and combinations inspired by Broadway musicals. Prerequisite: Jazz I/II, Ballet I/II or Instructor's consent.

**DANC 403 Modern IV (1)**

Intermediate/advanced level of modern dance. Deeper understanding and execution of modern techniques and improvisation. Prerequisite: Modern I-III or Instructor's consent.

**DANC 404 Choreography (2)**

Introduction, development and refinement in the art of making dances. A study of the fundamental elements and structure of dance composition. Class format is approached through improvisation and choreographic assignments. Prerequisite: DANC 101-104.

**DANC 470 Dance Capstone Practicum (1-3)**

Senior Dance majors will conduct a significant final portfolio project as supervised and approved by the Dance faculty.

**DANC 491 Independent Study (1-3)**

Independent study or research in dance under the supervision of an instructor. Instructor's approval must precede enrollment. Prerequisite: Instructor's approval.

**DIGM 490 Senior Seminar and Project (4)**

Digital Media studies are brought together in reflection, career exploration, and the creation of a digital media project.

## E

### **ECON 110 Economics of Social Issues (3)**

An examination of particular contemporary social issues such as crime, poverty, environmental quality, discrimination, healthcare, international trade, and unemployment, using analytical tools of economics. Fundamental aspects of the price system are emphasized throughout the course. Meets General Education Social Sciences requirement. Does not meet Department of Management and Business major requirements.

### **ECON 117 Issues in Environmental Economics (3)**

Introduction to the nature and application of the methods of economic analysis to the problems and issues associated with the environment. Deals with case studies and policy options relevant to local, national, and international environmental concerns. Meets General Education Social Science requirement.

### **ECON 120 Introduction to Economics – Macro Economics (3)**

A study of the fundamentals of economic analysis and basic economic institutions, with an emphasis upon understanding the impact of individual and social choices upon aggregate output, employment, inflation, relative income distribution and the environment. Monetary, fiscal and social welfare policies are evaluated in light of historical and current experience, with an attempt to understand the role of changing institutional structures, social values, and concerns for justice in an increasingly globally integrated world. Meets General Education Social Sciences requirement.

### **ECON 220 Principles of Microeconomics (3)**

A study of the fundamentals of individual market behavior, emphasizing the use of demand and supply analysis. The focus is upon understanding the implications of actions taken by individual decision-makers, operating within various market structures, upon the allocation and use of resources, distribution of income, and ability of markets to meet the needs and desires of individuals. Special attention is given to understanding the impact of market outcomes upon social and individual justice, and upon the environment. Prerequisite: ECON 120.

### **ECON 260 Cross Cultural: Perspectives on Development (3)**

This course serves as an introduction to the topic of development through experiential education within a cross-cultural setting in a developing country. Students look at the theology of poverty, and then get an overview of economic and community development from a faith-based perspective. The role of the Church in the development process will also be explored within the study of "transformational development." Cross-listed with IDCC 260.

### **ECON 301 Intermediate Macroeconomics (3)**

Examines the development of various macroeconomic models as tools for analyzing factors which influence the level of national income, output, inflation, employment, etc. Explains the usefulness and limitations of these models in determining appropriate fiscal, monetary and international trade policies. Prerequisites: ECON 120; ECON 220; MATH 107, MATH 108, or MATH 111; and STAT 281.

**ECON 302 Managerial Economics (3)** Application of microeconomic concepts to decision-making processes of business. Primary focus is on demand, cost, production, market structure, and

pricing policies. Prerequisites: ECON 120; ECON 220; MATH 107, MATH 108, or MATH 111; and STAT 281.

### **ECON 303 Comparative Political Economy (3)**

This course examines the historical development of economic analysis and current economic schools of thought in a philosophical, social, political, and cultural context. Included among the various schools of thought to be examined are "Classical" and "Modern Liberalism," Marxian, Keynesian, "New" Classical/Supply-Side Analysis, and Institutional. An emphasis is placed upon examining and critiquing the underlying methodological and philosophical principles of each school of thought, and exploring the implicit and explicit links between economics and politics. Prerequisites: ECON 120 and 220 or instructor's consent.

### **ECON 307 Money and Financial Markets (3)**

The role of finance in the economy and the nature of money and other financial assets. Emphasizes the role of principal financial markets and their relationship to the economy through study of fund flows, monetary theory, and policy. Prerequisites: ECON 120 and ECON 220.

### **ECON 309 Topics in Economics (3)**

Each offering of this course will deal with a different area of economic analysis. Possible topics include public finance, comparative economic systems, urban and regional economics, and econometrics. Prerequisites: To be determined (topics course).

### **ECON 312 Economic Development (3)**

Examination of the process of economic development with reference to developing countries. Considers a variety of case studies and viewpoints. Prerequisites: ECON 120 and 220.

### **ECON 315 The Economics of Wages and Employment (3)**

The economics of labor markets, labor unions, and collective bargaining. Topics include labor force participation, labor mobility, employment and unemployment, wage rate determination (education, training, labor market discrimination, and collective bargaining strategies), and public policies affecting income distribution. Both orthodox and heterodox frameworks of analysis are considered, with attention placed on questions of justice and equity. Prerequisites: ECON 120 and 220.

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### **EDSP 207 Introduction to Special Education (3)**

The purpose of this course is to provide students with an introduction to the historical, philosophical, ethical, and legal foundations of special education. Additionally, the educational and psychological factors related to human exceptionality will be discussed with the context of each of the 13 exceptionalities outlined in IDEA '04, as well as an introduction to principles of inclusive education and Universal Design for Learning (UDI). Requires updated security clearances. Concurrent courses: TEP 210, EDUC 203 (for all teacher certification students except PreK-4 and PreK-4/Dual Certification in Special Education).

### **EDSP 307 Inclusion Practices (3)**

In this course students will learn to use formal and informal assessment to guide instructional planning and decision making for the purpose of providing appropriate programs for all learners with special needs in the regular education classroom, including learners from culturally and/or linguistically diverse backgrounds. Special

attention will be given to instructional adaptations and accommodations within the general curriculum, instructional strategies, UDI, differentiated instruction, creating a positive learning environment, behavioral management techniques and team collaboration. Prerequisite: EDSP 207. Requires admission to the Teacher Education Program. Concurrent courses: EDUC 308, TEP 310 or 321 or 323.

#### **EDSP 396 Infants, Toddlers, and Families (3)**

This course will examine typical and atypical social, emotional, physical, cognitive, and linguistic development of infants and toddlers (birth through three-years). This course will also examine the role of the family and other caregivers, such as childcare providers, preschool teachers, and foster care parents, in the development of infants and toddlers (birth through three-years). Topics will include the development and maintenance of attachments to caregivers, the role of culture and gender in development, the role of socioeconomic status, infant and toddler mental health issues, and infants and toddlers with special needs. Early intervention and assessment techniques will be explored along with developmentally appropriate practices. For example, students will become familiar with the Individualized Family Service Plan (IFSP), the Denver Developmental Assessment, and other services that may be provided to infants and toddlers. Cross Listed with HDFS 396. Prerequisite EDSP 207 or EDUC 212. (Offered Fall Semester only.)

**EDSP 397 Instructional Strategies for Learners with Mild to Moderate Disabilities (3)** In this course students will learn to use formal and informal assessment to guide instructional planning and decision making for the purpose of providing appropriate educational programs for learners with mild and moderate disabilities, including learners from culturally and/or linguistically diverse backgrounds. Special attention will be given to instructional adaptations, accommodations and modifications within the general curriculum, evidence-based instructional strategies, Universal Design for Learning, differentiated instruction, creating a positive learning environment, behavioral management techniques and team collaboration. Prerequisite: EDSP 307. (Offered J-Term only.)

**EDSP 398 Instructional Strategies for Learners with Severe and Profound Disabilities (3)** In this course students will learn to use formal and informal assessment to guide instructional planning and decision making for the purpose of providing appropriate educational programs for learners with severe and profound disabilities, including learners from culturally and/or linguistically diverse backgrounds. Special attention will be given to instructional adaptations, accommodations and modifications within the general and functional curriculums, evidence-based instructional strategies, Universal Design for Learning, differentiated instruction, creating a positive learning environment, behavioral management techniques and team collaboration. Prerequisite: EDSP 307. (Offered Spring Term only.)

**EDSP 399 Positive Behavior Support for Learners with Emotional, Behavioral and Social Disabilities (3)** This course is designed to engage learners in thoughtful exploration and discussion of models of human behavior, researched-based principles of behavior management and practical application of behavioral and educational strategies used to create a classroom climate that promotes positive behavior for all learners, including learners from culturally and/or linguistically diverse backgrounds. A

strong emphasis will be placed on those learners with behavioral, emotional and social disabilities. Included will be foundations in understanding, assessing and managing behavior, strategies to prevent and remediate challenging behavior, and strategies for teaching prosocial replacement behaviors. In addition, the design of functional assessment and positive behavior supports will be addressed. Prerequisite: EDSP 307. (Offered Spring Term only.)

#### **EDSP 409 Psychological Testing (3)**

An overview of the use of psychological tests and observational techniques in the assessment of individuals.

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#### **EDUC 201 Education and American Society (3)**

Examines education in historical, philosophical, and sociological perspective, with emphasis on the relationship between schools and their socio-cultural contexts.

#### **EDUC 203 Educational Psychology (3)**

Study of theoretical concepts and principles necessary for understanding human thought and behavior in a wide variety of educational environments. Focus on variables related to teaching-learning processes: learning, memory, transfer, problem solving, motivation, growth and development, exceptionalities, instructional planning, assessment. Emphasis on research methodologies employed by educational psychologists and interpretation of empirical research findings. Meets General Education Social Sciences requirement. Cross-listed with PSYC 203. All teacher certification students must take TEP 210, EDUC 203 and EDSP 207 concurrently.

#### **EDUC 205 Cultural and Political Geography (3)**

This course will introduce students to the interdisciplinary field of social studies. The course will include content from the disciplines of history, geography, economics, and anthropology. Students will learn ways in which history and economics are influenced by physical and human geography. The course will use the study of geography to develop students' understanding of interactions between individuals and groups in historical and contemporary contexts.

#### **EDUC 209 Principles and Structures of Mathematics (3)**

This math content course will give students deep knowledge of the foundational math content that is covered in the elementary grades. While students will already have learned some of this content during their own K-12 experience, the research on mathematics teaching and learning in the U.S. tells us that most students will have significant gaps in their understanding and many will have negative affect toward the study of mathematics. By providing them with a strong foundational understanding of topics such as number theory, algebra, fractions, and geometry, students will be better prepared cognitively and affectively to teach these topics to children. Course objectives will be aligned with the PA Academic Standards and Assessment Anchors for elementary grades. Cross-listed with MATH 209.

#### **EDUC 212 Language Development (2)**

Principles of language development during early childhood years: theory, structure, semantics, and phonetics. Sociocultural influences and resultant implications, relationships of language development and reading readiness, and basic assumptions for a language development program.

**EDUC 226 Children's Literature (3)**

Critical and extensive study of children's literature and its application to the classroom with attention to requirements of text, illustration, and historical development. Includes exploration of a variety of genres, socio-cultural considerations, censorship issues, and technology implications.

**EDUC 301 Literacy: Climate, Curriculum and Instruction I (with Field Experience Block) (2)**

Introduction to reading theory for the primary grades. Emphasizes the transactional nature of the reading and writing process, the classroom teacher's role, approaches to early literacy practices, and the relationship between assessment and instruction. Includes the connection of reading, writing, speaking, and listening to the total curriculum. Prerequisite: Admission to the Teacher Education Program for PreK-4 majors. Also open to interested students who are not pursuing teacher certification. For EDUC majors, concurrent registration with EDUC 303, 330, and 321. (Offered Fall Semester only.)

**EDUC 302 Literacy: Climate, Curriculum and Instruction II (with Field Experience Block) (3)**

Examination of reading, writing, speaking, and listening in the elementary intermediate grades. Emphasis on concepts of literacy as students transition from "learning to read" to "reading to learn." Includes content-specific subjects, study skills, and the use of technology. Prerequisites: EDUC 301, 330. Must be taken at the Grantham campus. For EDUC majors, concurrent registration with EDUC 304 and TEP 312 or 314. Also open to interested students who are not pursuing teacher certification. (Offered Spring Term only.)

**EDUC 303 Mathematics: Climate, Curriculum and Instruction I (with Field Experience Block) (2)**

Teaching strategies for mathematics in the primary grades including children's development of number ideas, problem solving, computation, calculator, and computer applications, and philosophy and content of primary math programs. Prerequisites: EDUC 209; admission to the Teacher Education Program for PreK-4 majors. Also open to interested students who are not pursuing teacher certification. (Offered Fall Semester only.)

**EDUC 304 Mathematics: Climate, Curriculum and Instruction II (with Field Experience Block) (2-3)**

Teaching strategies for math in the intermediate grades including integers, rationals, continuation of mathematical problem-solving, geometry, metrics, assessment, error diagnosis at pre-algebra level, use of calculators and computers in math programs and philosophy and content of intermediate grade math programs. Prerequisites: EDUC 303, 330. Must be taken at the Grantham Campus. For EDUC majors, concurrent registration with EDUC 302 and 322 or 324. Also open to interested students who are not pursuing teacher certification. (Offered Spring Term only.)

**EDUC 305 Middle Level Methods (3)**

This course will provide students with opportunities to explore the school-related world of young adolescents. The purpose of the course is to show the intersection of school and adolescence and how this intersection can best be structured to meet the needs of middle school students. The course will introduce students to the philosophy of middle schools and show how effective middle schools and middle school classrooms address the unique needs of young adolescents. Students in this course will also be enrolled in a field experience in a grade 6-8 setting. In this field experience they

will be able to apply their understanding of young adolescents and the middle school philosophy to a real life context. Concurrent with EDUC 331. (Offered Fall Semester only.)

**EDUC 306 Creative Expression (3)**

Considers theoretical rationale and instructional strategies for incorporating creative activities into the early childhood curriculum. Students are involved in activities designed to encourage and promote creative thinking in early childhood learning environments. The accompanying field experience in the campus Early Learning Center provides opportunities for application of course content and reflection. (Offered J-Term only.) Prerequisite: Admission to the Teacher Education Program or Instructor's consent.

**EDUC 308 Instruction and Assessment of English Language Learners (3)**

This course takes an experiential approach to studying linguistic and cultural diversity in the classroom, as well as theories and issues of second language acquisition. Students will gain the knowledge, skills, and dispositions necessary for all teachers to address the instructional needs of English Language Learners (ELLs). Through exercises such as role-play, simulations, and in-class, student-generated presentations, prospective teachers will learn strategies for creating classrooms that promote language and content learning, as well as an appreciation for diversity. This course includes 20 hours of self-directed, cross-cultural experience, outside of the public school system.

**EDUC 309 TESOL Methods and Assessment (3)**

This course looks at traditional and current methodology and assessment practices in the teaching of English as a second and foreign language. With a focus on English language teaching in diverse contexts and to a broad range of ages and levels, this course aligns language acquisition theory with lesson design, delivery, and assessment. Students will view and reflect on language instruction in varied contexts, prepare and present ESL/EFL lessons in class, and learn from global and local professionals in TESOL. Prerequisite: EDUC 308.

**EDUC 312 Development, Cognition, and Learning of Young Children (3)**

This course will build on the work that students did in HDFS/PSYC 310. Students will be able to create and implement (in the connected field experience) instruction based on sound application of developmental and cognition theories. Students will work to establish positive classroom climate based on application principles of children's social and emotional development. The course will help students to understand the importance of positive relationships with parents and families and equip students with the skills to develop these relationships. Issues related to the assessment of children will also be addressed. Prerequisite: HDFS/PSYC 310. (Offered Spring Term only.)

**EDUC 325 Preschool Field Experience (0)**

In this field experience, early childhood education minors will spend approximately 80 hours in a Lab School classroom at the Early Learning Center, supervised by an ELC Master teacher. Students will do a minimal amount of classroom observation to become acclimated to their particular context, but most of the time will be spent working with children individually, in small groups, and large group settings. Students will complete assignments from concurrent courses, using the PA Learning Standards for Early Childhood. Concurrent enrollment in EDUC 301, EDUC 303, and EDUC 312.

**EDUC 330 Instructional Design I (3)**

Students develop instructional planning and assessment skills by applying a systems model of instructional design. Emphasis is on thinking and decision-making processes necessary for developing instruction and evaluating the achievement of learning goals in elementary and early childhood learning environments. Topics include instructional goals, learning outcomes, content analysis, classroom assessment strategies, instructional objectives, instructional technology, instructional sequences, lesson planning, and unit planning.

**EDUC 331 Instructional Design and Assessment for Middle and Secondary Grades (3)**

Students develop instructional planning and assessment skills by applying a systems model of instructional design. Emphasis on thinking and decision-making processes necessary for developing instruction and evaluating the achievement of learning goals in secondary-level learning environments. Topics include instructional goals, learning outcomes, content analysis, classroom assessment strategies, instructional objectives, instructional technology, instructional sequences, lesson planning, and unit planning. Prerequisites: EDUC 203. Admission to the Teacher Education Program and concurrent enrollment in TEP 310, or 323 (Middle Level only), 305 (Middle Level only), 307, and EDUC 308. Also open to interested students who are not pursuing teacher certification.

**EDUC 342 Social Studies: Climate, Curriculum and Instruction for Elementary School (3)**

Consideration is given to the aims, content, and organization of social studies appropriate to the elementary school and to methods and materials utilized in social studies. Prerequisite: EDUC 205. Admission to the Teacher Education Program for PreK-4 and Grades 4-8 majors. Also open to interested students who are not pursuing teacher certification. For teacher certification students concurrent enrollment with TEP 312 or 314. (Offered Spring Term only.)

**EDUC 346 Socio-Cultural Perspectives on Education (3)**

Study of socio-cultural variability and diversity in educational settings. Theoretical, empirical, and applied analysis of the effects of cultural variables (e.g., socioeconomic, ethnic, racial, linguistic, familial) on teaching-learning processes, instructional resources, and educational systems within a variety of learning environments (e.g., urban, suburban, rural, transient).\* Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement. (Offered Spring Term only.)

**EDUC 347 Science: Climate, Curriculum and Instruction for Elementary School (3)**

A lecture and activity designed methods course based on the National Science Education Standards (NSES). Emphasis on development of critical thinking skills, inquiry-based learning activities, classroom laboratory/activity safety procedures, integration of science with other content areas, participation in environmental programs, and application of learning theories. Prerequisites: EDUC 201, BIOL 106 and/or PHSC 102. Also open to interested students who are not pursuing teacher certification, with permission of the Department of Education Chair. For teacher certification students concurrent enrollment with TEP 312 or 314. (Offered Spring Term only.)

**EDUC 354 Comparative and International Education (3)**

Analysis of historical, social, economic, political, and cultural influences on education and educational systems of nations and

geographic regions around the world. Policies and practices of educational systems from capitalist, socialist, and "transitional" societies will be compared and contrasted, with emphasis on various dimensions of inequality (class, race/ethnicity, gender, religion, region), political stability, educational reform, and comparative research methodologies. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement.

**EDUC 355 Education and American Pluralism (3)**

An analysis of the role of American schools and universities in developing the concepts of American pluralism and national character. Current and historical perspectives on pluralism in American educational institutions are explored by examining social and educational issues related to race, ethnicity, gender, religion, and political ideology. Meets General Education Pluralism requirement.

**EDUC 356 Moral Education (3)**

Attempts of American schools to facilitate moral development are examined, from colonial religious training to recent curriculum models and instructional strategies. The relationship between moral education, ethical theory, and national moral debates is explored, with particular attention to the implications of contemporary moral issues for American educational institutions. Prerequisite: IDCR 151. Meets General Education Ethics in the Modern World requirement. (Offered Spring Term only.)

**EDUC 357 Education Public Policy (3)**

Introduction to selected theoretical perspectives related to democratic living, institutional processes, moral character, classical and modern ethics, and biblical perspectives on ethics. Major course topics include how and why public policy poses ethical problems, especially within public institutions such as schools, and how classical and modern ethical theories and biblical perspectives can be applied to these problems. Particular focus on public policies related to socio-cultural diversity in educational environments. Prerequisite: IDCR 151. Meets General Education Ethics in the Modern World requirement.

**EDUC 362 Education Practicum: Socio-Cultural Variability (3)**

Structured opportunities for students to experience educational environments that reflect significant degrees of learner diversity (e.g., socioeconomic, ethnic, racial, linguistic, familial). Students spend off-campus time observing, analyzing, assisting, and completing course assignments in the field. Class sessions engage students in group discussion, reflection, and problem-solving activities related to cultural variables within their particular field placements. Prerequisites: EDUC 346 or concurrent registration. Admission to the Teacher Education Program required for students pursuing teacher certification.

**EDUC 393 Practicum in Education (1-3)**

Teaching-related experiences in classrooms and/or non-traditional setting which provide 1) opportunities for enhancing personal and/or professional skills, 2) acquisition and/or application of content knowledge and pedagogic experiences, 3) exploration of additional career opportunities available to teachers, 4) integration of theory and practice in varied settings with diverse audiences. Credit award is based on length and intensity of involvement as well as the number and depth of learning objectives/outcomes to be accomplished. (Pass/Fail grade only.)

**EDUC 407 Student Teaching Seminar (1)**

This seminar is intended to be part of the senior capstone experience (along with EDUC 420) for our students. Students will examine critical issues in Education and schools. Faculty will support student reflection on these issues and students' responses as Christians in the field of Education. Faculty will also use this time to clarify essential practices to enhance the professional development semester. Faculty or supervisors may lead the seminars or may bring in experts to speak on a specific topic. Concurrent with EDUC 420, TEP 433 or TEP 434.

**EDUC 408 Seminar and Field Experience in TESOL (4)**

This course provides advanced study of TESOL methodology, with opportunity to combine theory and practice. A 40-hour supervised field experience is required. Education majors will complete a minimum of 20 field experience hours in the public school system, in grades 3-12. Non-education majors will complete the field experience through the Agape Center. This course requires that students complete background checks prior to the beginning of the course, and also requires that students provide their own transportation for the required field experience. Prerequisite: EDUC 308, EDUC 309, and ENGL 320.

**EDUC 414 Developmental Programming: Curriculum and Instruction for Early Childhood (3)** Study of the theory and methods of building programs to facilitate the appropriate development of preschool children with special emphasis on operational and administrative procedures. Admission to the Teacher Education Program for PreK-4 majors. Also open to interested students who are not pursuing teacher certification. Concurrent: EDUC 415, EDUC 465, for Education majors only. Prerequisites: HDFS/PSYC 310, EDUC 312.

**EDUC 415 Evidence-based Practices in Early Childhood Education (3)** Considers the connection and application of theory and practice and enhances the student teaching experience through research of current issues, individualized projects, and self-evaluation. Concurrent enrollment with EDUC 465.

**EDUC 420 Professional Issues in Education (2)**

Considers educational issues in the following areas: classroom management, PDE regulations and school law, professional ethics, school administration, curriculum regulations, special needs learners, health-related issues, professional negotiations, and other current issues/trends in education. Prerequisite: Admission to the Professional Semester.

**EDUC 430 Instructional Design II (1)**

Students apply instructional planning and assessment to specific populations and settings. Emphasis is on evidence-based practices for each phase of instruction and universal design for varied populations. Topics include instructional goals, learning outcomes, content analysis, classroom assessment strategies, instructional objectives, instructional sequences, universal design for learning, and evidence-based metacognitive strategies for early and elementary students.

**EDUC 465 Early Childhood Education Internship (0)**

In this senior level experience, students participate in developing, teaching, assessing, and modifying curriculum for preschool children, in accordance with the PA Learning Standards for Early Childhood. Students do both independent and collaborative

planning and teaching in the Lab School program at the Early Learning Center, under the supervision of College faculty. Concurrent enrollment in EDUC 414 and EDUC 415.

**EDUC 491 Independent Study (1-3)**

Selected topics in education taken independently with a faculty member.

**EDUC 497, 498 Major Honors (3, 3)**

Independent scholarship supervised by one or more Department of Education faculty mentors for junior- and senior-level students who have a strong academic record for a minimum of five previous semesters of college study. GPA of 3.6 (both cumulative and in major) and Department approval required for enrollment.

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**ENGL 122 Introduction to Poetry (3)**

Poems of various periods and genres will be studied with particular attention given to the English-American tradition. Students will learn how reading poetry differs from reading other forms of discourse, and how to enjoy reading poetry more fully. Meets General Education Literature requirement.

**ENGL 124 Short Story (3)**

An introduction to the genre of the short story. Examination of the elements (e.g., plot, characterization, narrative point of view, metaphor, symbol) of classic to contemporary stories, paying particular attention to the changes in the ways writers perceive the world. Meets General Education Literature requirement.

**ENGL 126 From Script to Screen (3)**

Introduction to strategies for interpreting major plays written in English with primary focus on Shakespeare. Evaluates changes and adaptations as plays are transformed into film, with a goal of helping students become critical viewers of the screen. Meets General Education Literature requirement.

**ENGL 142 Selected Works of British Literature (3)**

A consideration of the British literary tradition from Anglo-Saxon times to the 20<sup>th</sup> century, with a sampling of some characteristic writers and works from various periods. Meets General Education Literature requirement.

**ENGL 144 Nineteenth-Century British Women Writers (3)**

Introduction to several genres of literature written by outstanding British women writers of the 19<sup>th</sup> century. Through its focus on early writings in the women's movement, the course will provide a context for developments in 20<sup>th</sup>-century women's discourse. Meets General Education Literature requirement.

**ENGL 146 Writing of the Inklings (3)**

A study of literature composed by the Inklings, the British writing group that numbered among its members C. S. Lewis and J. R. R. Tolkien, as well as its peers and inspirers. Meets General Education Literature requirement.

**ENGL 148 Introduction to Shakespeare (3)**

Introductory study of selected plays and poems by Shakespeare. Meets General Education Literature requirement.

**ENGL 152 Selected Works of American Literature (3)**

Great works of American fiction, nonfiction, poetry, and drama will be read and discussed. Selections represent the colonial through the



contemporary periods, but will vary from semester to semester and from instructor to instructor. Meets General Education Literature requirement.

**ENGL 154 Introduction to Ethnic Literatures of the United States (3)** Introduction to literature that explores the cultural diversity of the United States. Readings may be selected from the variety of ethnic literatures in the United States. At the discretion of the instructor individual courses may focus on a single ethnic literature such as African American or Chinese American literature, or may focus on comparing the literatures of various ethnic groups. Meets General Education Literature requirement.

**ENGL 160 Introduction to World Literature (3)** Study of selected works other than British or American. Readings may be selected from African, Indian, Pacific Rim, Caribbean, and other literatures in translation. Meets General Education Literature requirement.

**ENGL 162 Of Gods and Humans: Literature of the Ancient World (3)** A study of some of the most important literary works of the Ancient World (Middle East, Greece, and Rome) with consideration given to the present relevance of the works as well as to their classical greatness. Meets General Education Literature requirement.

**ENGL 164 Studies in the Bible as Literature (3)** Study of selections from the Bible with particular reference to literary types. Meets General Education Literature requirement.

**ENGL 172 Literature and the Life of Faith (3)** Reading and discussion of fiction, poetry, and essays, primarily in the Judeo-Christian tradition, which engage issues of faith and life. Meets General Education Literature requirement.

**ENGL 174 Literature and the Environment (3)** Introduction to authors and works from the body of literature dealing with nature, creation, and the environment. Meets General Education Literature requirement.

**ENGL 176 Twentieth-Century Women's Literature (3)** Modern works by women writers will be considered with an emphasis on how gender impacts literature. Meets General Education Literature requirement.

**ENGL 201 Introduction to English Studies I (3)** Focusing on the development of interpretive acuity in both written and oral discourse, this course offers an introduction to the history of literature and criticism in English and also provides insight into the English Major and its relevance to life beyond college.

**ENGL 202 Introduction to English Studies II (3)** Continues to focus on the development of interpretive acuity in both written and oral discourse, but it includes and emphasizes methods of research for literary study and writing. Students will develop and complete a major research project as a requirement for this course.

**ENGL 203 Introduction to Creative Writing (3)** An introduction to the principles and practice of imaginative writing in three genres: poetry, short story, and drama or creative non-fiction.

### **ENGL 230 Linguistics (3)**

An introduction to language and linguistics with an emphasis on tools and methods for language study.

### **ENGL 305 Writing (3)**

Each ENGL 305 course will be a writing course with a specific focus, such as Advanced Writing, Magazine Writing, Poetry Workshop, Playwriting Workshop, Fiction Workshop, Writing for Business, etc. Magazine writing cross listed with COMM 305, and Newswriting crosslisted with COMM 112.

### **ENGL 310 British Literature Before 1800 (3)**

Courses offered under this heading might include a survey of early British literature, genre studies such as medieval drama or Renaissance epic, literary movements such as Augustan satire, or specific author courses such as Chaucer, Shakespeare, or Milton.

### **ENGL 320 British Literature After 1800 (3)**

Courses offered under this heading might include a survey of later British literature, genre studies such as Victorian poetry or postmodern British fiction, literary movements such as the Romantic poets, or specific author courses such as Jane Austen, George Eliot, or James Joyce.

### **ENGL 330 American Literature Before 1900 (3)**

Courses offered under this heading might include a survey of early American literature, genre studies such as the early American novel or early American nature writing, literary movements such as the Transcendentalists, or specific author courses such as Melville, Dickinson, Whitman.

### **ENGL 340 American Literature After 1900 (3)**

Courses offered under this heading might include a survey of later American literature, genre studies such as modern tragedy or postmodern language poetry, literary movements such as the Harlem Renaissance, or specific author courses such as William Faulkner, Toni Morrison, or Wendell Berry.

### **ENGL 350 Postcolonial/World Literature (3)**

Courses offered under this heading might include a survey of non-western literature written in English (especially African, Indian, Pacific Rim, and/or Caribbean literatures), focus on one national or regional literature, genre studies such as the postcolonial novel or Creole poetry, or specific author courses such as Chinua Achebe, Salman Rushdie, or Derek Walcott.

### **ENGL 360 Genre (3)**

Courses offered under this heading examine a specific kind of literature such as short story, novel, lyric, epic, tragedy, or the essay. Courses may cover a wide range of time and place—for example, a course on tragedy might start with Sophocles and proceed with Shakespeare, Hardy, O'Neill and Beckett. Young Adult Literature will be offered under this course number.

### **ENGL 370 Critical Theory (3)**

Courses offered under this heading might include a survey of the chronological and topical development of literary criticism, focus on a particular mode or movement such as reader-response theory or the Frankfurt School, or specific theorists such as Mikhail Bakhtin, Julia Kristeva, or Hans-Georg Gadamer.

**ENGL 391 English-Journalism Practicum (1-3)**

Work experience under professional supervision in areas such as public relations, journalism, and publishing. Open to junior and senior English/journalism majors who have completed at least four English/journalism courses. (Pass/Fail grade only.)

**ENGL 392 Student Publications Practicum (1-3)** The editor-in-chief of official student publications may receive three elective credits per semester for significant contributions to the publications on a regular basis. The section editors of the official student publications may receive one elective credit per semester for significant contributions to the publications on a regular basis. May be repeated for a total of six credits. Students must complete both ENGL 112 Newswriting and ENGL 305 Writing: Magazine Writing prior to or concurrently with their service as editors in order to receive academic credit. (Pass/Fail grade only.) Consent of faculty advisor for the publication is required for enrollment.

**ENGL 393 Staff Writer Practicum (1)**

Staff Writers who have distinguished themselves in style and profession (determined by faculty in English and Communications) may receive one elective credit per semester for significant written contributions to *The Swinging Bridge* on a regular basis: this entails submitting at least one dedicated story per issue and attending (helping with) training sessions and staff meetings. Prerequisite: sophomore status or above is required. (Pass/Fail grade only.)

**ENGL 407 Secondary English Curriculum and Instruction (3)**

A seminar emphasizing disciplinary content issues that are specific to English teaching. Areas of focus include curricular and instructional decision-making processes; classroom management strategies; assessment techniques; adaptations for exceptional learners; instructional technology applications; and professional development. Concurrent enrollment with EDUC 420, TEP 435, and PSYC/HDFS 311. Prerequisite: admission to the Professional Semester.

**ENGL 491 Independent Study (1-6)**

Independent study or research (normally no more than three credits per term) under the supervision of an instructor whose approval must precede enrollment (minimum GPA of 3.0 required).

**ENGL 494 Literature Seminar (3)**

Study and practice in bibliographical and critical methods. Consideration of Christian responses to the discipline. Preparation and presentation of major project.

**ENGL 496 Writing Seminar (3)** Exploration of the relationship of the Christian faith to the writer. Preparation of a major project for possible publication. Prerequisite: Two previous Messiah College writing courses or Instructor's consent.

**ENGL 497, 498 Major Honors (3, 3)**

Independent research program for junior- and senior-level students who have a strong academic record for a minimum of five previous semesters of college study. Overall G.P.A. of 3.5; G.P.A. of 3.7 in the major; and departmental approval required for enrollment.

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**ENGR 101 Engineering Graphics (2)**

Emphasis on graphics as a means for communicating ideas. Hand drawing and sketching, Computer-Aided Drawing (CAD) and solid modeling. Design projects.

**ENGR 102 Introduction to Engineering (2)**

Introduction to the engineering professions and the engineering design process. Variety of topics include history of engineering, academic success skills, appropriate technology, and ethics. Industry speakers are scheduled. Creative design projects and problem solving are stressed.

**ENGR 201 Group Orientation (1)**

Instruction in teamwork and project management. Study of topics specific to the student's Project/Group. Certification in the use of shop tools and instruments strategic to the student's Project/Group. Prerequisite: ENGR 102 or Instructor's consent.

**ENGR 231 Engineering Statics (3)**

Vector mechanics of force and moment systems in two and three dimensions, free body diagrams and the static equilibrium of structures, centroids, moments of inertia, frictional systems. Prerequisite: PHYS 211.

**ENGR 232 Engineering Dynamics (3)**

Kinematics and kinetics of particles and particle systems. Work-energy and impulse-momentum applications to particles. Rotation and translation of rigid bodies. Analysis of rigid-body motions and forces using Newton's Second Law and energy methods. Prerequisite: ENGR 231 and PHYS 211.

**ENGR 236 Circuits I (4)**

This course introduces basic concepts of both Analog and Digital circuits. Primary attention is given to DC Analog circuits, including op amp circuits and to combinational digital logic circuits. Both the transient response of RC circuits and sequential logic are introduced. Laboratory sessions parallel and supplement classroom topics and provide methods for students to design and troubleshoot basic circuits. Prerequisite: MATH 111.

**ENGR 242 Experimental Methods (3)**

Introduction to the modeling of systems and the analysis of experimental data. Topics include elementary error analysis, dimensional analysis using the Buckingham-Pi Theorem, one-sample estimation and hypothesis testing, correlation of data, interpolation, regression analysis, numerical methods for approximation and integration, and application of Laplace and Fourier transforms. Technical writing, computer usage, and presentation of data are emphasized. Prerequisite: PHYS 211.

**ENGR 254 Materials Engineering (4)**

Study of material structure, properties, and processing. Methods of controlling material properties are emphasized, along with material selection for engineering design and the manufacture of products. Ceramic, polymer and composite materials are surveyed, with in-depth study of metals and alloys. Field trips may be required. Design projects are sponsored by clients from the Collaboratory for Strategic Partnerships and Applied Research. Prerequisite: sophomore standing or Instructor's consent.

**ENGR 288 Project I (1)**

Students engage the knowledge content of their academic discipline in the context of a specific technology problem or need and in collaboration with a client organization or community. Prerequisite: ENGR 201 in previous semester.

**ENGR 290 Engineering Economics (2)**

Theory of economic decision making based on comparison of worth of alternative choice of action relative to cost involved. Includes time value mechanisms and depreciation methods. Prerequisite: Junior status.

**ENGR 301 Seminar I (1)**

Introduction to philosophical and cultural perspectives about technology. Exploration of North American and other cultural perspectives as they relate to Christian faith and engineering practice. Study and conversation about the concept of vocation. Prerequisite: Admission to the major or faculty sponsorship.

**ENGR 302 Seminar II (1)**

Continuation of ENGR 301 Seminar I. Exploration of service, leadership, stewardship, and discipleship as they relate to Christian faith and vocation. A capstone paper is required. Prerequisite: ENGR 301.

**ENGR 321 Environmental Engineering (3)**

Introduction to water supply and wastewater treatment, solid waste management, stormwater management, air pollution and related topics. Government agencies, project approaches, and financing. Monitoring and testing air and water quality. Pump station, sewage collection, and water distribution design. Prerequisites: Chemistry 105.

**ENGR 322 Water Resources Engineering (3)**

Physical, chemical, and biological processes for the treatment of drinking water and municipal wastewater. Treatment plant hydraulics. Introduction to wastewater microbiology and modeling software. Prerequisites: ENGR 321 Environmental Engineering.

**ENGR 333 Mechanics of Materials (3)**

Introduction to relationships between stress and strain at a point. Elementary analysis of stress distributions and deformations of prismatic members subjected to axial loading. Examination of torsional loading of uniform cylindrical members and bending of uniform section beams in both elastic and inelastic modes. Study of application of combined loading and an introduction to statically indeterminate problems. Prerequisites: MATH 211 and ENGR 231 or Instructor's consent.

**ENGR 336 Circuits II (3)**

This course builds on the introductory concepts for both Analog and Digital circuits presented in ENGR 236. Analog circuit analysis topics expand on circuit simplification techniques, investigate the natural and step responses of RL, RC and RLC circuits, and AC sinusoidal steady state circuit analysis using phasors. Advanced combinational digital logic minimization techniques are presented including automated methods. Sequential logic topics include design of counters and finite state machines. Laboratory sessions held on alternate weeks. Design project. Prerequisite: ENGR 236.

**ENGR 340 Analog Electronics (3)**

Exploration of the theory of operation of discrete semiconductor devices and the design of circuits using these devices, including diodes, BJT and FET transistors, and integrated circuits. Laboratory sessions are held on alternate weeks. Design project. Prerequisite: ENGR 336.

**ENGR 341 Microwaves (3)**

Introduction to microwave theory and techniques: electromagnetic waves, transmission lines, waveguides, microwave circuits, ferrite media, plasma properties, oscillators, amplifiers, other special devices and measurements. Modern applications of miniaturized semiconductor devices, stripline methods for low power circuits and s-parameter characterization. Prerequisites: ENGR 340 and 367.

**ENGR 342 Microprocessor Applications (4)**

Theory and application of microprocessors in engineering design with emphasis on practical applications. Students will learn both software programming and hardware interfacing. Laboratories involve the design, construction, and programming of microcontroller-based projects. Design project. Prerequisite: ENGR 336 or CIS 384.

**ENGR 343 Power Systems Engineering (3)**

Study of power system components, load flow, and voltage control. System fault studies are related to system protection. Prerequisite: ENGR 236.

**ENGR 351 Structural Analysis (3)**

A study of the analysis and design of beams, trusses, and framed structures. Includes calculation of shear forces and bending moments due to fixed and moving loads, calculation of deflection, analysis of loads using influence lines, and the analysis of statically indeterminate structures. Prerequisite: ENGR 333.

**ENGR 352 Structural Design (4)**

A study of design and behavior of structural members made of steel or reinforced concrete. Load and factored resistance design procedures are studied along with the current steel specification for the design, fabrication, and erection of structural steel for buildings and the building code requirements for reinforced concrete. Prerequisite: ENGR 351.

**ENGR 355 Soil Mechanics and Foundation Design (3)**

A study of the engineering principles relating to soil properties and foundation design. Includes soil structures, index properties, soil classification, permeability, compressibility and consolidation, soil testing, soil stresses, slope stability, retaining walls, and bearing capacity of shallow foundations. Prerequisite: ENGR 333.

**ENGR 357 Introduction to Traffic Engineering (3)**

Introduction to the basic concepts of traffic engineering and highway design. The traffic-engineering portion introduces basic concepts including motorist-vehicle-road-pedestrian interaction, roadway capacity, traffic flow/queue theory, and traffic signal timing. The highway design portion of the course focuses on the basics of horizontal and vertical alignment of roadways, design vehicle, design speed, super-elevation and sight distance.

**ENGR 358 Construction Engineer Management (3)**

Introduction to the basic concepts of construction engineering management including project documents, processes, and organizational structures; construction estimating, equipment, labor, and procurement; and building methods and materials. Prerequisite: Junior status or permission of the instructor.

**ENGR 364 Electrical Devices (4)**

Extension of topics begun in ENGR 340 with emphasis on integrated circuit (IC) semiconductor devices. Topics include

operational amplifiers, discrete amplifier and oscillator designs with feedback and stability considerations, active filters including classical and IC implementation, quasi-linear circuits including rectifiers, limiters, comparators, and the Schmitt Trigger. Design project. Prerequisite: ENGR 340.

#### **ENGR 365 Linear Systems (3)**

Introduction to analysis and design of linear shift-invariant discrete-time systems for digital signal processing (DSP) and other applications. Linear difference equations, block diagrams, impulse-response sequences, state-variables and MATLAB computer code are illustrated as tools for modeling single input-output systems. Frequency response and stability are examined. Fourier and z-transform methods are introduced. Exercises in digital filter design are included. Prerequisite: MATH 270 or MATH 308.

#### **ENGR 366 Control Systems (4)**

Fundamental theory for feedback control of physical processes. Study includes transient and steady state frequency response, stability analysis, control modes, and simulation of control systems. Prerequisite: MATH 270 or MATH 308.

#### **ENGR 367 Electromagnetics (3)**

Exploration of electromagnetic phenomena for contemporary engineering applications. Emphasis on Maxwell's equations, transmission lines, and wireless technology. Selected topics such as electrodynamics, fiber optics, bioelectro magnetics and effects in high-speed digital systems addressed as student interest and time permits. Vector calculus and alternative coordinate systems. Effects of material properties. Special project allows hands-on experience and investigation of current literature. Prerequisites: MATH 270 or MATH 308.

#### **ENGR 369 Communications Systems (3)**

Study of analog and digital electronic communications systems and techniques. Topics include signals, noise, bandwidth, modulation, coding, transmitter versus receiver circuiting, wired versus wireless links, high-frequency devices, and specialized systems as student interest and time permits. Laboratory exercises include use of modulators, spectrum analyzer, and time domain reflectometer (TDR). Prerequisite: ENGR 364. Also recommended: ENGR 365 and 367.

#### **ENGR 371 Thermodynamics (3)**

Introduction to the science and engineering uses of energy. Thermodynamic properties and data, the first and second laws of thermodynamics, entropy and availability concepts, and control volume analyses are considered. Thermodynamic systems and cycles for power generation, refrigeration, and heat pumping are also examined. Prerequisites: MATH 211 and PHYS 212 or Instructor's consent.

#### **ENGR 372 Fluid Mechanics (4)**

Study of static and dynamic effects in Fluid Kinematics using Lagrangian and Eulerian analysis. Continuity, momentum, and energy equations in integral and differential form for incompressible flows. Introduction to boundary layer theory and transient fluid motion. Comparison of Theory to experimental and computational fluid dynamic results. Prerequisites: MATH 211 and ENGR 232.

#### **ENGR 373 Instrumentation and Measurement (3)**

Treatment of experimental data obtained using mechanical and electrical instruments. Determination of statistical relevance of measurements. Experiments designed to reinforce measurement principles and techniques. Student presentations and demonstrations. Laboratory sessions on alternating week basis. Prerequisite: ENGR 236.

#### **ENGR 374 Heat Transfer Analysis and Design (4)**

Fundamentals of conduction, convection, and radiation heat transfer theory applied to engineering problems. Steady and transient conduction, forced and free convection, multi-mode heat transfer, heat exchanger design, and methods for enhancement are considered. Laboratory and design projects build on theory. Computer modeling. Prerequisites: ENGR 371, ENGR 372, MATH 270 or MATH 308.

#### **ENGR 375 Bioinstrumentation and Measurement (3)**

How electrical and mechanical instruments are used to collect data from biological and physiological systems. Theory of device operation given. Experiments designed to reinforce measurement principles and techniques. Data analyzed to determine statistical relevance. Topics include: biomedical sensors, determination of biomechanical properties of tissues, and biological and medical imaging techniques. Prerequisite: ENGR 236. Cross-listed with ENGR 373.

#### **ENGR 380 Kinematics and Dynamics of Machines (3)**

Analysis and synthesis of moving machine elements. In-depth study of velocity and acceleration characteristics of linkages, cams, and gear trains. Dynamic effects caused by Coriolis and spinning bodies will be explored. Computer simulation software is used. Student projects are required. Prerequisites: MATH 308 and ENGR 232.

**ENGR 381 Mechanical Design (3)** Investigation of fundamental mechanical design concepts and methods. Application of engineering mechanics, materials, and manufacturing concepts in analysis are used to design mechanical elements and systems. Topics include combined stress, contact stress, stress concentration, fatigue, deflection, and theories of failure. Computer modeling. Design projects. Prerequisite: ENGR 333.

#### **ENGR 382 Vibrations (3)**

Single and multiple degree of freedom systems are studied using computer and physical models. Both free and forced vibration with and without damping are treated. Design of a system to provide a proposed response is required. Prerequisites: MATH 308 and ENGR 232.

#### **ENGR 384 Manufacturing Processes (3)**

Study of manufacturing methods required for production: tooling techniques, fabrication techniques, machinability of materials, robotics, etc. Field trips to local industrial facilities arranged. Students will participate in a group project involving the design and construction of an automated manufacturing line. Laboratory sessions held on alternate weeks. Prerequisites: ENGR 254, ENGR 333, and Senior status, or Instructor's consent.

#### **ENGR 385 Machine Design (3)**

Comprehensive study of the design and analysis of commonly used mechanical components. Topics extend those studied in ENGR 333 and 381. Prerequisite: ENGR 381.

**ENGR 388 Project II (1 or 2)**

Continuation of ENGR 288 Project I. Optional leadership and project management opportunities available by invitation. Prerequisite: ENGR 288.

**ENGR 389 Engineering Practicum (1-3)**

Faculty supervised engineering experience. Students work on interdisciplinary teams toward completion of engineering projects sponsored by the Collaboratory for Strategic Partnerships and Applied Research. Team members from any major may register for a single credit hour. Upper division engineering majors with leadership roles may register for up to 3 credit hours. (Pass/Fail grade only.) Prerequisite: approval of the project advisor.

**ENGR 410 BME Design (3)**

Combine knowledge of engineering mechanics, materials, circuits, and physiology to design medical or biological devices. Investigation of fundamental design concepts and methods. Overview of FDA regulations and patents. Topics include: biocompatibility, physiologic stress conditions, and device quality. Prerequisite: ENGR 333.

**ENGR 440 Environmental Hydrology (3)**

This course will provide an overview of water in the environment and introduce the practice of engineering hydrology and its application in water resources. Topics include: the hydrologic cycle, climatology, precipitation, infiltration, groundwater flow, transpiration, measurement of meteorological parameters, watershed analysis, soil-water dynamics, stream-flow measurement, hydrograph analysis, methods for storm runoff and flood estimation, and soil and water conservation. Prerequisite or corequisite: ENGR 372 Fluid Mechanics.

**ENGR 488 Project III (2 or 3)**

Capstone project and continuation of ENGR 388 Project II. Students provide technical leadership on a Project Team. Prerequisite: ENGR 201 and ENGR 301 for Computer concentration (ENGR 301 and ENGR 388 for all other concentrations)

**ENGR 489 Project IV (2 or 3)**

Capstone project and continuation of ENGR 488 Project III. Document and present the team's work at the School of Mathematics, Engineering, and Business Scholarship Day. Mentor and transfer technical leadership responsibilities to incoming senior engineering majors. Prerequisites: ENGR 302, ENGR 488 in previous semester.

**ENGR 495 Topics in Engineering (3)**

Study of selected topics in engineering. Content dependent on student and faculty interest. Prerequisite: Junior or Senior status.

**ENGR 496 Independent Study (1-3)**

Independent study in engineering under the direction of an instructor. Requires Departmental approval.

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**ESS 201 Earth and Space Science (3)**

This course provides a broad introduction to the six content areas of basic scientific principles of Earth and Space Science: tectonics and internal Earth processes, Earth materials and surface processes, history of the Earth and its life forms, Earth's atmosphere and hydrosphere, and astronomy. Conceptual learning of processes,

"how we know," are emphasized. The basic principles of biology, chemistry, physics, and mathematics as they relate to the interactions among the lithosphere, hydrosphere, atmosphere, and biosphere are emphasized in the course. Two lectures and three hours of laboratory each week. Meets General Education Laboratory Science requirement.

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**F****FREN 101, 102 Fundamentals of French I, II (3, 3)**

Intensive study of the fundamentals of French grammar within a communicative approach to language learning. Introduction to French culture. Meets General Education Languages and Cultures requirement.

**FREN 201 Intermediate French (3)**

Continuation of grammar principles with practical application in conversation. Introduction to composition through selected cultural and literary readings. Prerequisite: FREN 102 or the equivalent. Meets General Education Languages and Cultures requirement.

**FREN 206 French Culture and Language (3)**

Study of the culture, geography, and history of France and the French-speaking world. Prerequisite: FREN 201 or equivalent.

**FREN 301 Contemporary French Culture (3)**

Topics include the French concepts of family, home, friendships, etc. Prerequisite: FREN 206 or Instructor's consent.

**FREN 320 Selected Topics in French (3)**

Intensive study of a selected author, genre, literary movement, French-speaking country, or current events derived from periodicals and/or the internet.

**FREN 391 Independent Study (1-3)**

Advanced language study or research. (Maximum of six credits)

**FREN 401, 402 Advanced Composition and Conversation I, II (3, 3)** Conversation and composition on a variety of contemporary topics.

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**G****GEOG 103 Regional Geography of the World (3)**

A study of the world's major realms and regions. Major emphasis is placed upon mastering an understanding of the geographical characteristics distinctive to each of the earth's various realms and regions. Location geography, cultural geography, political geography, economic geography and physical geography are highlighted. This course introduces students to both the "Pennsylvania Academic Standards for Geography" and "Geography for Life: National Geography Standards." Offered Spring Term only.

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**GEOL 152 Geology (3)**

Consideration of fundamental and historical aspects of geology. Two lectures and three hours of laboratory per week. Meets General Education Laboratory Science requirement.

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**GEST 041 Foundational Study Skills (2)**

Development and application of basic skills to promote effective study. Includes time management, motivation, goal setting, reading

skills, note taking, learning theory, and preparation for examination-taking. Required of all conditionally admitted students.

#### **GEST 043 Supplemental Study Skills (1)**

Development and application of basic skills to promote effective study. Includes time management, motivation, goal setting, reading skills, note taking, learning theory, and preparation for examination-taking. Open to all students.

#### **GEST 101 Career Planning and Decision-Making (1)**

Exploratory course designed for students who are uncertain about their major and/or career goals. Emphasizes applying decision-making skills to career information gathered throughout the course. (Pass/Fail grade only.)

#### **GEST 140 Adaptation to American Education (1)**

Focus on adjustment to American culture and educational processes with special attention to language needs and skills necessary for academic success. (Pass/Fail grade only.)

**GEST 210 Racial Healing (1)** This course focuses on racial justice and uses an experiential methodology to assist students to better understand the problems of racism and specific strategies used to bring about the healing of racism. Admission only with permission of the instructor. (Pass/Fail grade only.)

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#### **GIS 245 Introduction to Geographic Information Systems (3)**

A Geographical Information System (GIS) is a cross-disciplinary computer-based data processing program designed to manage and analyze spatial information. ArcView GIS is a PC-based software package used for visualizing, exploring, querying, editing, and analyzing data linked to geographic locations. The emphasis of this course is on software training and use of technology in order to provide students with a core base and general skills on which they can build further expertise in GIS. Two lectures and three hours of lab per week. Students from all majors are welcome. Prerequisites: Familiarity with MS Windows, spreadsheets and databases. (Alternate years, offered 2013-2014).

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#### **GERM 101, 102 Fundamentals of German I, II (3, 3)**

Intensive study of the fundamentals of German grammar within a communicative approach to language learning. Introduction to German culture. Meets General Education Languages and Cultures requirement.

#### **GERM 201 Intermediate German (3)**

Review and refinement of German language skills. Discussion of various themes in German culture such as the family, leisure activities, divided and unified Germany, and music. Prerequisite: GERM 102 or equivalent. Meets General Education Languages and Cultures requirement.

#### **GERM 206 Contemporary German Culture (3)**

Advanced conversational and reading skills centered on current issues in Germany, such as the environment and alternative energy sources, transportation, and the changing demographics of German society. Prerequisite: GERM 201 or equivalent.

#### **GERM 211 Unified Germany (3)**

The self-perception and expression of the German people since political unification. Topics may include German and European

identity, foreigners in Germany, youth, religious faith, and East German nostalgia.

#### **GERM 301 Readings in German Literature I (3)**

Selected literary works from Das Nibelungenlied to Goethe. Prerequisite: GERM 206 or the equivalent. Meets General Education Literature requirement.

#### **GERM 302 Readings in German Literature II (3)**

Selected literary works from the 19<sup>th</sup> and 20<sup>th</sup> centuries. Meets General Education Literature requirement. Prerequisite: GERM 206 or the equivalent.

#### **GERM 491 Independent Study (1-3)**

Advanced study or research in German.

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#### **GERO 218 Death, Grief and Caring (3)**

Study of current attitudes toward death, dying, and grief. Approached from the perspective of how to deal with one's own and others' mortality and how caregivers can give support to the bereaved or terminally ill person. Cross-listed with HDFS 218.

#### **GERO 231 Psychology of Aging (3)**

Study focuses on the psychological stability and change experienced by older persons. Topics include sensation and perception, intellectual functioning and learning, psychomotor skills, personality, and psychopathology as related to older persons. Students develop a relationship with an Elder Mentor for the duration of the class. Course has a service-learning designation. Cross-listed with PSYC 231.

#### **GERO 232 Sociology of Aging (3)**

Comprehensive introduction to the field of social gerontology. Special emphasis is given to the aged in the context of how older adults both affect and are affected by our society. Includes study of demography, cultural values, diversity of aging experiences, friendship and family relationships, work and retirement, living arrangements, political activity and social programs. Students engage in Elder Service Partner Program for the duration of the class. Service-learning designated course. Cross-listed with SOAN 232.

#### **GERO 251 Biology, Nutrition, and Healthy Aging (3)**

Team-taught course, with time devoted to the areas of nutrition, health, and biology of the aging. Emphasizes maximizing the physiological condition of older persons.

#### **GERO 391 Aging Practicum (1-3)**

Field experience for persons pursuing possible careers in the field of gerontology. Students work under professional supervision for a minimum of 40 hours per credit. Ten additional hours of reading and other integrative activities per credit required. Prerequisites: Instructor's consent, Department Chair, and Career Center for Vocation and Development.

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#### **GREK 205 Fundamentals of Greek I (3)**

Elements of Greek are introduced, studied, and applied with a goal of mastering the rudiments of the language and acquiring a carefully selected vocabulary. Readings from the New Testament. Meets General Education Languages and Cultures requirement.

### **GREK 206 Fundamentals of Greek II (3)**

Elements of Greek are introduced, studied, and applied with a goal of mastering the rudiments of the language and acquiring a carefully selected vocabulary. Readings from the New Testament. Meets General Education Languages and cultures requirement. Prerequisite: GREK 205.

### **GREK 305 Intermediate Greek (3)**

Syntax, vocabulary, efficiency in translation, and exact meanings of words are stressed. Selected New Testament passages are read. Prerequisites: GREK 205, 206. Meets General Education Languages and Cultures requirement.

## **H**

**HDFS 099 Opportunities in Human Development and Family Science (1)** Introduction to the discipline of human development and family science, the faculty in this discipline, career possibilities following graduation, the academic advising process, the discipline's curriculum and its relationship to the general education curriculum, and the type of library research and writing style expected. (Pass/Fail grade only.)

### **HDFS 101 Foundations of Marriage and Family (3)**

An overview of the distinct perspective and content areas of the field of family science. The course will focus on the discovery and application of knowledge about the family, with special emphasis on multicultural diversity and Christian integration. Meets General Education Social Sciences requirement.

### **HDFS 142 Introduction to Interpersonal Relations (3)**

Study of intrapersonal and interpersonal needs, goals, and behaviors in an effort to enhance interpersonal competence. Emphasis on teaching skills necessary to function more effectively in interpersonal situations and helping contexts.

### **HDFS 205 Principles of Peer Relationships (0-1)**

This course, designed for Resident Assistants and Apartment Life Coordinators, will consider numerous essential components for effective peer relationships and helping skills based upon the premise that competent students know themselves, know others, and know Messiah College.

### **HDFS 209 Life Span Development (3)**

A developmental approach to the study of persons from conception to death. Attention is given to the physical, emotional, social, and cognitive development of the individual as well as to theoretical and methodological issues relevant to understanding different age groups. Applications are made to the contexts relevant to various stages of development. Recommended prerequisite: EDUC/PSYC 203, HDFS 101, SOAN 201, or PSYC 101. Cross-listed with PSYC 209. Not for HDFS majors.

### **HDFS 218 Death, Grief, and Caring (3)**

Study of current attitudes toward death, dying, and grief. Approached from the perspective of how to deal with one's own and others' mortality and how caregivers can give support to the bereaved or terminally ill person. Cross-listed with GERO 218.

### **HDFS 242 Parenting (3)**

Overview of the parenting process in diverse cultural and familial structures. Examines mothering and fathering as well as the effects

of parenthood on other family relationships. Identifies different parenting styles, theories, and psycho-educational programs and how these vary throughout the family life cycle. Prerequisite: HDFS 101, PSYC 101 or Instructor's consent.

### **HDFS 244 Human Sexuality (3)**

Examination of sexual development, human reproduction, sexual functioning, gender, ethics, and attitudes. Investigation of sexual dysfunction and socio-psychological issues related to sexual expression.

### **HDFS 245 Family Resource Management (3)**

An examination of management basics such as decision making, time and energy management, work simplification, and critical thinking as they apply to the functioning of family systems through the life span. The student will acquire a thorough understanding of the acquisition, distribution, and utilization of resources as these relate to unique individual/family needs and wants. Prerequisite: HDFS 101 or Instructor's consent.

### **HDFS 253 Community Services for Individuals and Families (3)**

An overview of family policies and how the community responds to the needs of individuals and families. Major social agencies which serve individuals and families will be surveyed. Prerequisite: HDFS 101 or Instructor's consent.

### **HDFS 272 Introduction to Social Research (3)**

Introduction to human inquiry including the development of hypotheses and the role of theory in hypothesis development. A survey of research design, sampling, data collection and analysis. Prerequisite: An introductory course in the behavioral sciences. Prerequisite: STAT 269 OR PSYC 271 AND one of the following: HDFS 101, SOAN 101, SOWK 120, PSYC 101, or CRIJ 101. Cross-listed with PSYC 272.

**HDFS 307 Family and Consumer Sciences Curriculum and Instruction I (2)** Provides an examination of the spectrum of theories, techniques, methods, and approaches to the teaching of family and consumer sciences, with particular attention to the Pennsylvania Department of Education's Academic Standards and Guidelines for FCS. Students will be expected to develop instructional materials that could be used in classroom. Should be taken concurrent with EDUC 318. Prerequisite: HDFS 101 and admission into the Teacher Education Program.

### **HDFS 310 Child Development (3)**

A developmental approach to the study of the individual from the prenatal period through late childhood. Attention given to the physical, emotional, social, and cognitive development of the child as well as theoretical and methodological issues related to child development. Applications made to the family, peers, church, and culture. Prerequisite: One of the following: HDFS 101, PSYC 101, PSYC/HDFS 171, EDUC/PSYC 203, EDUC 212, or EDSP 207. Cross-listed with PSYC 310.

### **HDFS 311 Adolescent Development (3)**

A developmental approach to the study of the adolescent. Attention given to the physical, emotional, social, and cognitive development of the adolescent as well as theoretical and methodological issues. Applications made to the family, peers, schools, church, and culture. Prerequisite: EDUC/PSYC 203, HDFS 101, PSYC 101, or HDFS/PSYC 272. Cross-listed with PSYC 311.

**HDFS 312 Adult Development (3)**

A developmental approach to the study of the early and middle adult years. Attention given to the interaction of psychological, social, and physiological aspects as well as theoretical and methodological issues related to adult development. Prerequisite: EDUC/PSYC 203, HDFS 101, PSYC 101, or HDFS/PSYC 272. Cross-listed with PSYC 312.

**HDFS 339 Dynamics of Family Interaction (3)**

Study of interpersonal processes in the family and other intimate groups. Examination and application of family theory and family interaction patterns. Prerequisite: sophomore standing and HDFS 101 or PSYC 101.

**HDFS 340 Ethics and Families (3)**

An introduction to the applied field of family ethics, this course attempts to find rational solutions to specific moral problems embedded in the context of marital and/or familial relationships and explores implications for the larger social context. Students will study the application of ethical theories to the problems and questions specific to this area of human activity and will be introduced to the use of specific steps in the process of moral decision making. Prerequisite: IDCR 151. Meets General Education Ethics in the Modern World requirement.

**HDFS 342 Women and Men in American Society (3)**

Introduction to key topics related to gender such as identity formation, work, family, sexuality, violence, class stratification, and religious orientation. Racial and cultural issues will be treated as they affect understanding of gender. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement. Cross-listed with PSYC/SOAN 342.

**HDFS 355 Marital Relationships (3)**

Examination of dating, mate selection, and marriage, including factors associated with marital satisfaction, stability, and dissolution. Prerequisite: Sophomore standing and HDFS 101 or PSYC 101.

**HDFS 361 Introduction to Child Life (2)**

This course will offer a basic introduction to the field of child life; the role of the child life specialist in healthcare; theory, history, and scope of professional practices; and an overview of the Child Life Council and the certification process. The fundamental skills of a child life specialist (assessment, medical play, and psychological preparation, provision of coping strategies, sibling work, disease education and end of life support) will be discussed. Must be taken concurrently with HDFS 362, as students will be required to work with hospitalized children. Prerequisite: HDFS/PSYC 310.

**HDFS 362 Child Life Field Experience (1)**

This course offers students practical experience working with hospitalized children and exposes them to the role of the Child Life Specialist in a healthcare setting. This field experience runs concurrent with course work for HDFS 361. Students spend time weekly working with hospitalized children for a total of at least forty hours over the course of the semester. Must be taken concurrently with HDFS 361 Child Life (2 credits); must have TB test within last year and have proof of Child Abuse Clearances.

**HDFS 382 Topics in Human Development and Family Science (3)**

Selected topics in family science not currently included in course offerings. Possible topics may include families under stress, play, the

history of the family, the family in later life, family violence, work and families, the family and media, women in relationships, family therapy, and family diversity. May be repeated for additional credit as the topic/study changes. Prerequisite: Three credits of HDFS courses or Instructor's consent.

**HDFS 383 Topics in Multicultural Family Studies (3)**

Selected topics in multicultural families. Possible topics may include but are not limited to the study of African-American families, Asian-American families, and Latino families. May be repeated for additional credit as the topic/study changes. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement.

**HDFS 384 Families in America (3)**

A sociocultural study of family/household variations in the Americas; special emphasis on cultural and ethnic diversity and the adaptability of family/household forms to changing environmental contexts; historical and cross-cultural perspectives. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement and cross-listed with SOAN 384.

**HDFS 386 Family Ethnicity and Human Services (3)**

This course provides an introduction to the cultural variations found in family structures, life cycle transitions, relational strengths and values as experienced within African American, American Indian, Asian American, and Latino families. Special attention will be given to the understanding of racism, ethnocentrism, and acculturation, as well as the role that cultural sensitivity may play in the assessment and delivery of human services. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement.

**HDFS 391 Family Service Practicum (1-3)**

Field experience for junior and senior human development and family science majors wishing to clarify vocational goals and gain hands-on experience. Students work under professional supervision for a minimum of 40 hours per credit. Ten additional hours of reading and other integrative activities per credit required. Prerequisites: Instructor's consent, Department Chair, and Career Center for Vocation and Development.

**HDFS 396 Infants, Toddlers, and Families (3)**

This course will examine typical and atypical social, emotional, physical, cognitive, and linguistic development of infants and toddlers (birth through 3-years). This course will also examine the role of the family and other caregivers, such as childcare providers, preschool teachers, and foster care parents, in the development of infants and toddlers (birth through 3-years). Topics will include the development and maintenance of attachments to caregivers, the role of culture and gender in development, the role of socioeconomic status, infant and toddler mental health issues, and infants and toddlers with special needs. Early intervention and assessment techniques will be explored along with developmentally appropriate practices. For example, students will become familiar with the Individualized Family Service Plan (IFSP), the Denver Developmental Assessment, and other services that may be provided to infants and toddlers. Cross-listed with EDSP 396.

**HDFS 407 Family and Consumer Sciences Curriculum and Instruction II (1)** A seminar emphasizing disciplinary content issues that are specific to Family and Consumer Sciences teaching. Areas



of focus include curricular and instructional decision-making processes; classroom management strategies; assessment techniques; adaptations for exceptional learners; instructional technology application; and professional development. Should be taken concurrent with EDUC 420, TEP 435, and HDFS/PSYC 311. Prerequisite: Admission to the Professional Semester and HDFS 307.

#### **HDFS 411 Marriage and Family Therapy (3)**

This course is designed to introduce students to the evolution, perspectives, professional issues, and basic models of family therapy, with particular attention to foundational theoretical approaches dealing with systems theory. Students will learn basic concepts and interventions employed for dealing with relational patterns found between couples and families. Prerequisites: PSYC 101 or HDFS 101 and HDFS 339 or PSYC 323, or Instructor's consent.

#### **HDFS 442 Strategies of Family Life Education (3)**

Investigation of contemporary models and methods for strengthening interpersonal and family relationships. Emphasizes family life education and family enrichment. Prerequisites: HDFS 339, HDFS 355.

#### **HDFS 491 Independent Study (1-3)**

Junior and senior students with at least a 3.0 GPA in their major may select a problem for independent investigation in a special area of family science. Prerequisites: Instructor's consent and Department Chair.

#### **HDFS 494 Human Development and Family Science Seminar (3)**

This course will encourage students to examine contemporary family problems in light of their Christian faith. As part of this process students will learn different skills in biblical interpretation as they analyze existing issues which affect family relationships. Consideration will also be given to how issues of faith may affect the practice and delivery of social services. Prerequisite: Senior status.

#### **HDFS 497, 498 Major Honors (3, 3)**

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5 and departmental approval required for enrollment.

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#### **HEBR 205 Fundamentals of Hebrew I (3)**

Introduction to the basic grammar and vocabulary of biblical Hebrew. Emphasizes understanding word formation and building vocabulary as a foundation for developing reading proficiency. Various passages from the Hebrew Bible are read. Meets General Education Languages and Cultures requirement.

#### **HEBR 206 Fundamentals of Hebrew II (3)**

Introduction to the basic grammar and vocabulary of biblical Hebrew. Emphasizes understanding word formation and building vocabulary as a foundation for developing reading proficiency. Various passages from the Hebrew Bible are read. Meets General Education Languages and Cultures requirement. Prerequisite: HEBR 205.

#### **HEBR 305 Intermediate Hebrew (3)**

Readings from the Hebrew Bible are selected to develop facility in reading and translating the Hebrew text. Prerequisite: HEBR 205,

206. Meets General Education Languages and Cultures requirement.

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#### **HEXS 101 Introduction to Health and Exercise Science (1)**

An introductory course designed to examine the philosophical and historical origin of the field of exercise science. The course will include an overview of topics in the field of exercise science including; acute and chronic physiological responses to exercise, nutrition, biomechanics, concepts in health-related and physical fitness, and statistics. In addition, current issues and future directions will also be explored. (Offered Fall Semester only.)

#### **HEXS 210 Exercise Psychology (3)**

The course provides an overview of psychological issues related to exercise and health behavior, including and understanding the concepts, principles and theories that relate to the practice of promoting and supporting regular exercise participation, patterns, and modification. Emphasis will be given to the psychological influences and consequences of exercise participation on positive health behaviors, and the impact of exercise on mental health states such as depression and anxiety. Social influences that impact exercise behavior will also be explored. (Alternate years, offered 2014-2015.)

#### **HEXS 215 Chronic Disease and Exercise (3)**

The course provides students with a basic understanding of the epidemiology of chronic disease and the role exercise has in the management and treatment of the disease. The course will examine diseases such as cardiovascular disease, metabolic disorders, musculoskeletal disease/disorders, and pulmonary disease. In addition, the course will address intervention strategies for risk reduction and chronic disease prevention for the individual as well as the broader community.

#### **HEXS 220 Health Promotion Management (3)**

The course provides the student with the history and current practice of health promotion and fitness instruction that can be used in a variety of health and exercise settings (e.g., corporate fitness, schools, non-profit organizations, hospital based programs, or service programs). Students will survey current health promotion topics, how to implement the administrative structure to conduct the programs, and assessment tools to evaluate the programs.

#### **HEXS 225 Research Methods and Statistical Analysis (3)**

A course designed to introduce the theoretical basis and application process of research in the field of exercise science. The course explores the concepts of the research process, research design, ethical issues for the use of human subjects, and organizing a literature review. The students will also be introduced to the statistical concepts of descriptive and inferential statistics; including correlation, t-tests, ANOVA, factorial design and regression analysis.

#### **HEXS 310 Elite Athletic Performance (3)**

The course will utilize students' backgrounds in biomechanics and exercise physiology to examine training methods and models that facilitate sport performance at the elite level. Profile characteristics of elite athletes will be presented as well as the relationship between inherited and acquired capacities responsible for elite performance. Attention will also be given to ways that technology is currently being used to enhance elite athletic performance. Prerequisite of HPED 322. (Alternate years, offered Spring Term 2014.)

**HEXS 315 Stress Testing and ECG Interpretation (3)**

The course provides the student with an understanding of basic electrocardiogram interpretation for the normal and the diseased heart at rest and during graded exercise testing. The course will review the anatomy and physiology of the cardio respiratory system and will include a survey of electrocardiography, including the topics of rate, rhythm, hypertrophy, axis determination, atrial and ventricular arrhythmias, conduction defects, myocardial ischemia, and myocardial infarction. Prerequisite: HPED 322 or Instructor's consent. (Alternate years).

**HEXS 330 Advanced Research Methods (1-3)**

Students will carry out the research project proposed in the Research Methods course under the direction of faculty mentors. The semester will culminate with the submission of the final two chapters (results and discussion) and a presentation at a departmental colloquium. Prerequisite: HEXS 225 or instructor's consent.

**HEXS 360 Exercise Testing and Prescription (3)**

Practical experience in using physiological laboratory instrumentation. Emphasis on appropriate application of test results to the planning of individual fitness programs. Populations discussed include adults, elderly, cardiac patients, and athletes. Particular emphasis on data collection using bicycle ergometers and treadmills. Includes two hours laboratory per week. Prerequisite: HPED 322.

**HEXS 391 Health and Exercise Science Practicum (1-3)**

Practical experience related to health, physical education, athletic or leisure programming, or health and fitness. May involve experience as an instructional aide, athletic trainer, recreational sports, or off-campus employee. Prerequisite: departmental approval.

**HEXS 410 Topics in Health and Exercise Science (2-3)**

Topics will be related to current trends and research in health and exercise science. Prerequisite: HPED 322.

**HEXS 412 Senior Seminar for Health and Exercise Science (3)**

This capstone course will investigate contemporary exercise science issues with a look to preparing students as future servant-leaders in society. Topics for discussion will include preparation for the senior capstone exam, current exercise trends in society, popular nutritional supplements, national certifications related to personal training and conditioning, physical therapy and graduate school expectations, and vocational issues. Through readings and class discussions, students will formulate a personal written philosophy articulating their mission as a Christian professional in the field of exercise science.

**HEXS 415 Advanced Exercise Physiology (3)**

The course provides an advanced study of the physiological responses and adaptations to physical activity. Emphasis is placed on human bioenergetics, skeletal muscle structure and function, and the cardiovascular system. The critical analysis of the effect of exercise on human physiologic function will include in-depth examination of current literature. Prerequisite: HPED 322. (Alternate years, offered 2014-2015.)

**HEXS 491 Independent Study in Health and Exercise Science (1-3)** Independent research with faculty supervision.**HEXS 497, 498 Major Honors (3,3)**

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. GPA of 3.5 and departmental approval required for enrollment.

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**HIST 099 Introduction to History (1)**

This course is an introduction to the study of history. The course will explore the ways historians think about the past and practice their craft, the relationship between Christian faith and the study of history, careers in history, and how to begin thinking about putting a history degree to use in the marketplace. This course is required of all first-year history majors.

**HIST 101 Western Civilization Before 1500 (3)**

A survey of Western Civilization from pre-history to 1500. Major themes include the fundamental nature of human civilization, the Judeo-Christian tradition and its place among the civilizations of human history, and the nature of various cultural worldviews that emerged in classical and medieval Western civilization. Meets General Education European History requirement.

**HIST 102 Western Civilization Since 1500 (3)**

A survey of the social, economic, political, religious, and cultural developments in Western Civilization from 1500 to the present. Major themes include the emergence of a modern Western worldview, how with this worldview European nations came to dominate the other world civilizations, and how the traumas of the 20<sup>th</sup> Century caused a profound questioning of this modern world model. Meets General Education European History requirement.

**HIST 131 The Emergence of Modernity in the Western Imagination (3)** This course explores the accelerating pace of change that accompanied the emergence of modernity in Western Civilizations. It focuses on those areas of human thought and imagination that have crafted the ideas and values that distinguish the modern West from other times and other locations. Emphasis will be placed on how ideas and intellectuals have both shaped and evaluated social, economic, and political changes since the onset of the early modern era. Meets General Education European History requirement.

**HIST 132 European Missionaries in Africa (3)** This course focuses on one of the most significant developments of European history—the interaction of European peoples with the rest of the world after Columbus “discovered” the Americas in 1492. In particular, it examines the European missionary movement in Africa. This movement led to one of the most important legacies of Western interaction with Africa—African Christianity. Meets General Education European History requirement. (Offered J-Term only.)

**HIST 134 Knights, Peasants, and Bandits: A Social History of Medieval England (3)** An exploration of the ways ordinary (and some not-so-ordinary) people coped with both daily life as well as major historical events that occurred in England from the Norman Conquest to the Tudor dynasty. Special emphasis is placed on life within the communities of family, village, court, church, and city. Meets General Education European History requirement. (Offered J-Term only.)

**HIST 141 U.S. History Survey to 1865 (3)**

A survey stressing political, economic, diplomatic, and social themes. Begins with discussion of pre-Columbian America and ends with the Civil War. Meets General Education United States History requirement.

**HIST 142 U.S. History Survey Since 1865 (3)**

A survey stressing political, economic, diplomatic, and social themes. Begins with Reconstruction and continues through the present day. Meets General Education United States History requirement.

**HIST 151 The Wild, Wild West: Battles Over the American West and the Western Image (3)** A study of the history and mythology of the American West. Special attention given to the symbols often associated with the West—such as freedom, opportunity, individualism—and how these have influenced America as a whole. Meets General Education United States History requirement.

**HIST 171 World Civilizations: Bronze Age to 1500 (3)**

A comparative survey of the social, cultural, political, religious, and economic developments in civilizations outside the western tradition from pre-history to 1500. Major themes include the fundamental nature of human civilization, the classical traditions of civilizations which emerged in Asia, Africa, the Near East, and the pre-Columbian Americas, and the growing interactions between these civilizations in classical and medieval world history. Meets General Education Non-Western Studies requirement.

**HIST 172 World Civilizations: 1500 to Present (3)**

A comparative survey of the social, cultural, political, religious, and economic developments in civilizations outside the western tradition from 1500 to the present. Major themes include the effects of Western imperialism on these civilizations, their responses to modernization, globalization, and westernization, and the post-colonial transformations of civilizations during the 20<sup>th</sup> Century. Meets General Education Non-Western Studies requirement.

**HIST 258 Historical Methods (3)** An introduction to the “doing” of history including techniques, procedures, and skills of the working historian. The course will concentrate on research methodology, analytical and synthetic thinking skills, and the ability to organize and report research findings in both written and oral form. This course is designed specifically for sophomore History Majors and Minors and humanities-history concentration majors. (Offered Fall Semester only.)

**HIST 301 Ancient Greece (3)**

A survey of the ancient Greek world from prehistory to the period of the Roman Empire. The course focuses on Greek political ideals, socio-economic conditions, religious traditions, daily life, and the cultural contributions of ancient Greece, including historical writing, democratic systems, philosophy, drama, art, and architecture.

**HIST 302 Ancient Rome (3)**

A study of the Roman world examining the growth of Rome from a small city-state to the dominant power of the Mediterranean. The course focuses on political ideals, culture, socio-economic conditions, daily life, religion, and the rise of Christianity within the Roman Empire.

**HIST 303 Late Antiquity: AD 250-700 (3)**

A study of the transformation of the Roman world from the third to seventh centuries AD, examining the end of the ancient world and the birth of new medieval societies in Europe and the Mediterranean. The course gives attention to such topics as the Christianization of the Roman Empire, shifting boundaries of empire and political structures, changes in society and economy, transformation of town and countryside, Germanic migrations, the rise of the papacy, and the emergence of Islam.

**HIST 304 Tudor-Stuart England: 1400–1700 (3)**

An introduction to the history of England from the Later Middle Ages through the Tudor/Stuart era. Major themes include social, economic, and religious change and the ways in which those changes influenced politics and culture from the Wars of the Roses through the Elizabethan Age and the English Civil War.

**HIST 305 Archaeology and Historical Interpretation: Greece and Rome (3)** An introduction to the methods of archaeology as they relate to and produce historical analysis, interpretation, and conclusions. The course focuses on the material cultures of Greece and Rome as revealed through several centuries of archaeological investigation.

**HIST 310 Medieval Europe: AD 700-1500 (3)**

A survey of the cultural, social, economic, religious, and political developments in Europe from the eighth to fifteenth centuries AD. Major themes include the emergence of medieval social institutions and modes of thought, Christian monasticism and spirituality, and the cultural interactions of the Latin West, the Byzantine East, and the Islamic world.

**HIST 319 Topics in Classical and Medieval European History (3)**

Selected topics related to a specific area of Classical and Medieval European history such as Greek and Roman history, Late Antiquity, the Medieval world, and Mediterranean archaeology.

**HIST 320 Renaissance and Reformation Europe (3)**

A survey of the cultural, political, socio-economic, intellectual, and religious developments in Early Modern Europe. Major themes include Renaissance Humanism (Italian and Northern), religious reformations, and religious wars. Special attention will be given to the relationship between social change and shifts in European intellectual life and spirituality. Meets Euro History requirement.

**HIST 321 The Age of Monarchy: 17th- and 18th-Century Europe (3)**

A study of European society, politics, and culture in the “early modern” period, from the age of Religious Wars through the American War of Independence and the French Revolution. Topics include the rise of modern nation-states, absolute monarchs, constitutional governments, the spread of printing, the Enlightenment and its critics, changing patterns and practices of daily life, traditional religion in an emerging scientific culture, and Europe’s colonial settlements.

**HIST 322 Modern Europe: 1789–1918 (3)**

A study of European society, politics, and culture from the Age of Napoleon through the First World War. Topics include the development of modern Western ideologies such as nationalism, romanticism, liberalism, capitalism, socialism, and imperialism; political revolutions and reforms; industrialization, urbanization,

and the new commodity culture; changing class, family, and gender relations; the cult of progress; and the status of religion in an age of doubt.

#### **HIST 323 Europe in the 20<sup>th</sup> Century (3)**

A study of European society, politics, and culture from the Russian Revolution to the present day. Topics include the World Wars and the Holocaust; the disintegration of Europe's overseas empires; women's, students', and labor movements; changing family structures and social reforms; communism, the Cold War, and the collapse of the Soviet Union; European unification and the spread of democracy; ongoing ethnic and religious conflicts; and visions for the new millennium.

#### **HIST 324 European Imperialism and Its Legacies: 1500 to Present (3)**

This course focuses on one of the most crucial facets of modern European history—the interaction of European peoples with the rest of the world after Columbus “discovered” the Americas in 1492. This course examines European imperialism in the Americas after 1492 as well as the “New Imperialism” of the late 19<sup>th</sup> century, which occurred in a very different historical context. It considers the two-way significance of European imperialism—its impact on the Americas, Africa, and Asia, and on Europe itself.

#### **HIST 331 Modern Britain (3)**

A survey of British society, politics, and culture from the 18th century to the present day. Beginning with the unification of England, Wales, and Scotland in 1707, we shall examine how an island nation smaller than the state of Texas became the world's richest power and claimed dominion over one-fifth of the world's population, and then began its 20<sup>th</sup>-Century industrial decline.

#### **HIST 332 Modern Germany (3)**

A survey of the emergence of the modern state of Germany from the aftermath of the Thirty Years War (1618–1648) to the reunification of this nation in 1991. Major themes include the forces of nationalism, liberalism, and imperialism; the Nazi era and the subsequent rehabilitation of Germany within the Cold War and post-Cold War context.

#### **HIST 341 Colonial America (3)**

A study of the political, social, and religious history of the North American colonies from 1620 to 1763. Emphases include the transformation of European and African settlers into a distinctly American people, and the often stormy relationships between Native Americans and European immigrants.

#### **HIST 342 America in the Age of the Revolution (3)**

An examination of the development of the United States between 1790 and 1848. Emphasis is given to the political, social, economic, and cultural factors which shaped American life during the Jeffersonian and Jacksonian eras.

#### **HIST 344 Civil War America (3)**

An examination of the causes, nature, and consequences of the American Civil War. Covers the period from 1848–1877 and discusses such topics as the nature of slavery, the rise of abolitionism, the collapse and reconstruction of the American political system, and the realities of war. Meets General Education United States History requirement.

#### **HIST 345 Pennsylvania History (3)**

This class provides students with the opportunity to gain an introductory understanding of the social, political, and economic developments that have characterized Pennsylvania from its colonial roots through the de-industrialization of the 1970s and 1980s and the individuals who helped shape these events. Meets General Education Pluralism requirement.

#### **HIST 346 From Omaha to Hiroshima: U.S. History, 1890–1945 (3)**

A study of the U.S. from the Populist movement through the end of World War II. Focus is on the transformation of a rural, agrarian society into an urban industrial world power.

#### **HIST 347 Modern America: U.S. History, 1945–Present (3)**

A study of the U.S. from the end of World War II to the present. Special attention given to the social and cultural influences of the Cold War, changes in the political economy, and protest movements in the late 20<sup>th</sup> Century.

#### **HIST 351 Native American History (3)**

A survey of Native American history from before European contact to the present day. Addresses social, cultural, economic, political, and military themes. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement.

#### **HIST 352 African-American History Since 1865 (3)**

A study of historical change in the lives, experiences, legal status, and social status of African-Americans from the abolition of slavery to the present. Special attention is given to African-American campaigns to secure political and social equality. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement.

#### **HIST 353 Immigrant America (3)**

A history of immigration and immigrant groups in the United States from 1830 to the present. Covers major waves of immigration and focuses on the diverse cultural heritage, social structure, and political activism of immigrants from Europe, the Americas, and Asia. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement.

#### **HIST 355 U.S. Urban History (3)**

An examination of the process by which America moved from a society characterized by small farms and villages to one dominated by large cities and sprawling suburbs. Themes include the effects of technology and planning on city-building and the effects of the urban form on race, ethnic, and gender relations. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement.

#### **HIST 362 U.S. Foreign Policy (3)**

An examination of U.S. foreign policy with special attention given to the Cold War and its aftermath.

#### **HIST 371 Premodern Civilizations of Asia (3)**

A broad introduction to the historical transformations of government and society in Asia from the earliest times to the 16th Century. The twin themes of order and encounters will form the thematic foundations for analyzing the different ways in which Asian societies in China, Japan, and India grew in complexity as they crafted elaborate institutional arrangements for governance, and also as they became interconnected within wider circuits of

exchange of ideas, commodities, and populations. The course will end at the moment of early modern encounters with Europeans.

### **HIST 372 Modern Civilizations of Asia (3)**

A broad introduction to the historical transformations of government and society in Asia from the 16<sup>th</sup> Century onward. Focusing on China, Japan, India, and southeast Asia, a number of inter-related themes will be explored: the cultures of these regions, the different ways in which they were brought under the influence of western powers, the subsequent transformations and adaptations these societies underwent, and the sometimes painful emergence of new nation states in Asia. Topics such as capitalism, cross-cultural encounter, resistance, governance, gender, social inequality, institutional change, nationalism, and revolution will form the critical focus of this course. Meets General Education Non-Western Studies requirement.

### **HIST 373 History of India before 1500 (3)**

An exploration of Indus Valley cultures, the Vedic age, Hindu, Buddhist, and Jaina world views, early kingdoms and empires, medieval state formations, Islamic culture and Sultanate regimes. Major themes include questions of culture, exchange, state making, governance, and world views, which reveal the multilayered and complex character of the subcontinent's history—one that goes beyond simple labels of "Hindu" and "Muslim."

### **HIST 374 History of Modern India and Pakistan (3)**

An examination of the broad contours of south Asian history after 1500 considering the histories of those parts of the sub-continent covered by India, Pakistan (and by extension, Bangladesh), and Gorkha (present-day Nepal). Major themes include: the Mughal Empire, European colonial interventions and indigenous responses (reform, rebellion, and nationalism), and the painful emergence of south Asian nations and their postcolonial predicaments. These themes will also intersect with the following concerns: Mughal state making, colonial governance and its forms of knowledge, subaltern histories, gender and caste studies, communalism, and discourses on development.

### **HIST 375 Gandhi's India: 1869–1948 (3)**

An examination of the dominant themes of Indian history that unfolded during the lifetime of one of its greatest leaders, Mahatma Gandhi. Major themes include: the life, teachings and political practices of the Mahatma, his allies and detractors, the growth of Indian nationalism with all its internal tensions, the colonial state and its forms of knowledge, subaltern social movements, gender relations, elite and popular cultural expressions, communalism, the Partition (1947) and formation of Pakistan, the postcolonial Indian state, environmental histories, Indian diasporas, and the subcontinent's development regimes.

### **HIST 379 History of the Middle East (3)**

This course introduces students to the history of the Middle East. It provides an opportunity to move beyond the headlines that appear in the news media almost every day. The course surveys Arab history in the Middle East and North Africa focusing particularly on the rise of Islam, subsequent Islamic kingdoms and empires, and the interaction of the Islamic world with the West. Particular attention will also be paid to understanding the religion of Islam as well as the Israeli-Palestinian conflict. Meets General Education Non-Western Studies requirement.

### **HIST 381 History of Africa (3)**

This course introduces students to the richness and diversity of African history from earliest times to the present. From ancient Egypt to the post-colonial states; from medieval Islamic and Christian kingdoms to the modern missionary movement; from the Atlantic slave trade to the effects of European colonialism; from the involvement of medieval Swahili city-states in the world economy to the international debt crisis of African countries today; from the nationalist movements that won independence from European rule to the struggles of black South Africans against the apartheid regime, this course examines key themes and topics in the history of the enormous continent we call Africa. Meets General Education Non-Western Studies requirement.

### **HIST 383 South Africa: Struggle for Freedom (3)**

This course examines one of the most amazing freedom movements of the 20<sup>th</sup> century. In 1994, black South Africans finally achieved majority rule after more than 100 years of struggle against white minority rule. This course will explore the peoples and societies of South Africa, and the ways in which they responded to the increasing pressures and expansion of white rule. Particular attention will be paid to the movements which fought against the most racist system the world has seen: the Afrikaner apartheid regime established in 1948. The role of Christianity and the church and the role of the international community, particularly the U.S., in the anti-apartheid struggle will also be examined. Meets General Education Non-Western Studies requirement.

### **HIST 390 Teaching History and Social Studies (3)**

A seminar emphasizing disciplinary content issues that are specific to secondary school history and social studies teaching. Areas of focus include curricular and instructional decision-making processes; classroom management strategies, assessment techniques, adaptations for exceptional learners; instructional technology applications; historical thinking, and professional development. This course is required for History-Social Studies majors, but is also open to other students as an upper-division history elective.

### **HIST 391 Historical Study of Peace (3)**

This course centers on how people throughout history and across the world have responded to situations of conflict and oppression. Grounded in complicated historical reality, this course examines various social and political contexts in which humans have faced violence and injustice and the ways in which individuals and communities responded hopefully and positively if not always successfully. Particular attention will be paid to the role of religion in general and Christianity in particular in shaping people's ideas and actions in situations of conflict and oppression.

### **HIST 392 Women and Gender in History (3)**

This course puts women and gender at the center of historical inquiry using a comparative perspective. Thus, the construction of masculinity and femininity and the relations between men and women will be examined across the globe from earliest times to the present. In the Americas, Europe, Asia, Africa, and the Middle East, the significance of women and gender will be explored in such central institutions as the state, family, religion, and economy. Particular attention will be paid to the ways that women have negotiated their position throughout history, including the modern

feminist movement that we know today. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement.

### **HIST 393 Public History (3)**

A study of how history is presented in the public sphere—including museums, commemorations, documentaries, community histories, and public memory. Addresses a variety of activities and careers for historians outside of academia. May include or be taken in conjunction with an internship.

### **HIST 394 Digital History (3)**

What does it mean to practice history in the digital age? In this course, we explore how technology is changing the way we think about, research, and present the past. Our emphasis will be on the practice of digital history through specific exercises in GIS, data collection and manipulation, internet archiving, database creation, website development, social media, image and video editing, and digitization. Through a range of applications, tools, and collaborative exercises, we will see how digital tools readily intersect with the practice of history and how these applications are changing the way we understand our discipline.

### **HIST 399 Topics in History (3)**

Selected topics related to a specific area of historical inquiry including American history, European history, non-Western history, and historiography.

### **HIST 401 Historiography and Philosophy of History (3)**

A study of the meaning and interpretation of history, with special attention to movements of historical thought and the historians who influenced those movements. This capstone seminar course is designed specifically for senior History Majors. (Offered Fall Semester only.)

### **HIST 407 Issues in the History and Social Studies Classroom (1)**

A one-credit course required for History-Social Studies majors to be taken during their professional semester. The focus is on disciplinary content issues that arise during student teaching.

### **HIST 491 Independent Study (1–3)**

Independent study or research under the supervision of an instructor whose approval must precede the student's enrollment.

### **HIST 495 Internship in Historical Research (6–9)**

Assignment under professional guidance in an archives or historical collection.

### **HIST 497, 498 Major Honors (6)**

Independent research program for students who have strong academic records for a minimum of five previous semesters of collegiate study. Overall GPA of 3.5 and Department of History faculty approval required for enrollment.

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### **HPED 170 Concepts of Conditioning (2)**

Introduction to the basic foundations of physical fitness and wellness concepts. Particular emphasis is placed on the fitness components of cardiovascular endurance, body composition, muscle strength and endurance, and labs emphasizing flexibility. Students design and implement individualized exercise programs, and significant class time is devoted to vigorous sport and exercise sessions.

### **HPED 189 Emergency Water Safety (1)**

### **HPED 192 Water Safety Instructor (2)**

**HPED 193 Lifeguarding/First Aid/CPR (2)** An American Red Cross Lifeguard Training certificate (valid for three years) will be awarded to students based on correctly answering at least 80% of the written test questions on the CPR and Lifeguarding test, correctly demonstrating all course critical skills, and possessing current certification in CPR for the Professional Rescuer.

### **HPED 195 First Aid and CPR (1)**

### **HPED 223 Community Health Strategies (3)**

Study of major community health problems and effective methods of community health education. Particular emphasis is given to the influence of society on human health behavior. Includes an in-depth look at the areas of consumer health, stress, safety, and sexuality. (Alternate years, offered Spring Term 2013.)

### **HPED 224 Personal Health Strategies (3)**

Explorations in the personal health areas of drug dependency, nutrition, weight control, and disease. Emphasizes individual responsibility for making sound personal health decisions.

### **HPED 227 Foundations of Physical Education (3)**

Overview of the physical education profession; brief history; philosophical, scientific, and sociological foundations and principles; a brief introduction to career opportunities plus overall education objectives of health and physical education programs. (Offered Fall Semester only.)

### **HPED 229 Motor Learning (3)**

An introductory investigation of principles affecting performance and retention of motor skills. Topics include learning stages, information processing, feedback, transfer, practice conditions, memory, arousal, task analysis, data analysis, fundamental experimental and statistical concepts. (Alternate years, J-Term 2013.)

### **HPED 233 Sports Officiating (2)**

Understanding of basic philosophy of officiating, including methods, rules interpretation, and technique. Students develop basic officiating skills through participation and rating, and are introduced to officiating rating examinations

### **HPED 236 Medical Aspects of Sport (2)**

Basic injury prevention and care course for those majors involved in coaching, fitness programs, and physical activity supervision. Involves the application of basic injury care, conditioning of athletes, basic taping techniques, legal and ethical issues, and nutritional concepts. Lab sessions and practical experience are provided.

### **HPED 305 Contemporary Issues in Health (3)**

An in-depth study of selective, contemporary health issues. An emphasis on exploring Healthy People 2000 Objectives is included.

**HPED 309 Curriculum and Instruction in Elementary Physical Education (3)** Theories, principles, and practices related to curriculum development and instruction in elementary physical education. Practical experience is included.

**HPED 312 Curriculum and Instruction in Secondary Physical Education (3)** Theories, principles, and practices related to curriculum development and instruction in secondary physical education. Practical experience is included.

**HPED 321 Kinesiology (3)**

Detailed study of human balance and motion, including the application of physical laws to action of bones, muscles, and their articulations. Practical application to physical education activities.

**HPED 322 Exercise Physiology (3)**

Physiological adjustments of major organs and systems to exercise, including theories and principles for improving performance. Examination of current literature and research. An analysis of ethical and physiological implications of using scientific technology to enhance performance.

**HPED 323 Exercise Physiology Lab (1)**

This course will give the student a practical, hands-on learning experience with experiments that demonstrate the principles of the human body's response to exercise. Students will use laboratory equipment to gather data that they will interpret for written reports. Topics covered will coincide with material presented in HPED 322. This course must be taken concurrently with HPED 322.

**HPED 326 Curriculum and Instruction in Health Education (3)**

Curriculum planning, methods, materials, and teaching techniques for teaching health to grades K-12. Prerequisite: Health and Physical Education major or Instructor's consent.

**HPED 329 Sport in Society (3)**

Study of race, sexism, social stratification, social mobility, and religious orientations pertaining to sports. Contemporary realities, myths, and issues concerning social differentiation will be examined by utilizing a variety of disciplinary approaches, including the following theories: functionalism, conflict, critical, and feminist. Analysis of the social influences and structure that have affected and exist within, between, and among societies, nations, and cultures will also be explored as they pertain to sport. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement.

**HPED 332 Teaching Adapted Physical Education (3)**

Principles and practices concerning conditions and diseases (e.g., orthopedic, neurological, emotional, etc.) which influence participation in physical education and recreation.

**HPED 333 Principles of Coaching (3)**

A study of principles and practices of coaching with an emphasis on methodology, administration, and conditioning. In addition, social-psychological dimensions of coaching such as motivation, stress, group dynamics and leadership will also be included. Students will be challenged to develop a philosophy of coaching and critique competition in light of their Christian faith.

**HPED 422 Assessment in Health and Physical Education (2)**

Guidance in appropriate selection, construction, and administration of motor skill, fitness, and knowledge assessment tools as well as interpreting and using results of data collection to improve student learning. (Offered Fall Semester only.)

**HPED 423 Principles of Administration (3)**

A study of leadership, basic skills, processes, and functions of management pertaining to physical education, fitness, and sport. The development of an extensive policies and procedures manual that includes, but is not limited to the following components: mission statement, objectives/goals, code of ethics, organizational plan, policies, facility plans, and operational budget. The case study approach is heavily utilized for the student practice decision-making skills. (Offered Spring Term only.)

**HPED 433 Student Teaching Seminar (2)**

The seminar is designed to provide opportunities to reflect upon and evaluate teaching experiences, to research and debate special topics and to continue the process of planning for future professional endeavors. The seminar is conducted concurrently with student teaching. (Pass/Fail grade only.)

**HPED 491 Independent Study in Physical Education (1-3)**

Independent research with faculty supervision.

**HPED 497, 498 Majors Honors (3, 3)**

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5 and department approval required for enrollment.

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**HRM 301 Human Resource Management (3)**

Examination of the process and problems in effectively selecting, developing, utilizing, and evaluating human resources in an organization. (Offered Spring Term.)

**HRM 311 Organizational Behavior (3)**

Principles, concepts, and processes involved in the interface among individuals, groups, and organizations. Topics such as personality, perception, leadership development, role theory, motivation, power and conflict, group behavior, and job design.

**HRM 312 Leading Organizational Change (3)**

The current environment in which organizations operate is characterized by unprecedented change powered by rapidly emerging technologies, information overload, globalization, higher customer expectations, and changing values, lifestyles, and attitudes. This requires effective leaders to be proactive toward change or be lost in the tide. This course examines change from an organizational perspective by exploring the change process, representative change interventions, and the role of the leader in working with organizational members to accomplish successful change initiatives. Course concepts are drawn from many disciplines and explore change at individual, group, and organizational levels. Students will have the opportunity to analyze success, failure, and multiple dilemmas of public and private sector organizations in order to better understand the causes, implications, potential leader action, and strategies of organizational change. Cross-listed with LEAD 312.

**HRM 346 Employee and Labor Relations (3)**

Study of the relationship between the employee and the employer including a foundation for understanding how employee and labor relations relate to management practices and to the full scope of human resources. Examination of the historical development of labor and labor relations, current laws that work to balance the rights and interests of employees with the rights and interests of the employer, and the conflicts and concerns that develop with the

balance is broken. Investigation of employee/employer communication strategies, performance management concepts, grievances, the structure of unions, collective bargaining, and dispute resolution. Through the use of case studies, emphasis is placed on developing the ability to recognize employee/employer concerns, identify the laws that apply, and develop appropriate solutions. Prerequisite: BUSA 120 or Instructor's consent.

### **HRM 351 Working Internationally (3)**

Human resource management practices in other countries differ from those in the U.S., each having advantages and disadvantages. Investigates how a country's history, culture, religion, politics, and economy impact the practice of HRM. Human resource systems in the European Union in general and the Netherlands in particular will be analyzed and compared. Explores different paradigms with the goal of advancing a just system of human resources. Prerequisite: BUSA 120. (Offered J-Term, even years.)

### **HRM 356 Compensation and Benefits Management (3)**

Explores the design and evaluation of compensation programs that will attract, retain, and motivate competent employees. Topics include job evaluation, pay discrimination and comparable worth, internal and external equity comparisons, and benefit plans; the study of wage and salary administration in public and private organizations; determinants of general wage and salary levels and structures; total compensation systems, incentive wage systems, supplementary benefits; legal framework and overall compensation strategy. (Offered Fall Semester, odd years.)

### **HRM 426 Topics in Human Resource Management (3)**

Seminar course with variable topics related to a specific area of human resource management. Possible topics include comparative HRM systems, work and family relationships, motivation, performance management, and self-directed teams. May be taken more than once for credit.

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### **HUMA 100 The Hoverter Course (3)**

An interdisciplinary introduction to the humanities, this course will consider the complexities of human experience through various works of arts and thought, reflected in the disciplines of philosophy, history, literature and religious studies. A course enriched by instruction in written and oral communication will introduce students to analytical, critical and imaginative tools for thinking and writing about the world of ideas.

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## **I**

### **IBUS 375 International Business and World Economy (3)**

Introduction to international economic relations with emphasis on both private and public sectors. Topics include theories of trade, protectionism, balance of payments and the international monetary order, economic integration, the developing world, and global corporations. Focuses on current trends, policies, and institutions. Prerequisite: ECON 120 and 220.

### **IBUS 377 Ministry in International Business (3)**

Examination of the current Business As Mission (BAM) movement with emphasis on BAM opportunities in international business. Topics include the biblical basis for BAM, contextualization of faith in the international work environment, resources and training programs for BAM preparation. Guest speakers share personal experiences.

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*The following four courses are taught in conjunction with the International Business Institute and are generally completed during the summer between the junior and senior year.*

### **IBI 331 Comparative Economic Systems (3)**

A survey of the major economic systems, including the underlying ideological foundations and institutional arrangements. The major theoretical aspects of various types of systems are covered along with their central organizational features. Special attention is given to the changes and developments in the former Soviet Union and Eastern Europe. Review of the European Union as well as the major Asian economies of China and Japan. (Letter grade only.)

### **IBI 339 Global Marketing (3)**

The theory and practice of contemporary global marketing management. The context or environment of international marketing is covered along with the task of marketing within a variety of national or cultural markets. Major topic areas include the global marketing environment, global market research and market entry, and product planning and strategy in a global context. Several projects involve students in global marketing research and analysis. (Letter grade only.)

### **IBI 350 International Trade and Finance (3)**

A survey of the analytical and institutional aspects of international trade and finance. The historical and contextual elements are the foundation for the examination of current theoretical and empirical approaches to international economic and financial relations. Major areas of emphasis include international finance, international trade, and globalization. (Letter grade only.)

### **IBI 390 Global Business Strategy (3)**

This course is intended to integrate the field experiences and presentations by guest faculty in the areas of international business with current developments and literature in this field. Students will be expected to prepare analytical reports on the various firms and institutions visited in the program. Major topics included in the reading and discussion in this course are the role of the multinational firm in the world economy, international business strategy, organizational behavior, international human resource management, and financial management for the multinational firm. The discussion of values and ethical issues related to international business is also included. (Letter grade only.)

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### **IDCC 260 Cross-Cultural Studies (3)**

A field-based examination of one or more cultures which seeks to increase the students' appreciation for and understanding of cultural traditions other than their own. Requires three weeks of on-site study, including home-stays, internships or ethnographic fieldwork, in addition to readings, lectures, and site visitations.

### **IDCR 151 Created and Called for Community (3)**

The central question to be considered is, "What is my vocation as a faithful steward of God's creation?" Through examining literary, historical, artistic, philosophical, and theological works, students engage in the biblical themes of forgiveness, compassion, nonviolence, peacemaking, justice, and racial and gender reconciliation through the lens of the College's unique religious identity and foundational values, with a particular focus on the importance of community.



**IDET 3xx Ethics in the Modern World (3)**

An examination of various approaches to moral decision-making and an application of these approaches to selected contemporary ethical issues and problems.

**IDFY 101 First Year Seminar (3)****IDFY 102 HONORS: First Year Seminar (3)**

An introduction to the intellectual life of the College for first-year students. This is done in the context of a small discussion-oriented seminar designed around specific themes proposed and taught by individual faculty from a variety of academic disciplines. Emphasis is given to developing important academic skills such as writing, reading, and critical thinking.

**IDFY 101L Writing Laboratory (1)**

A course designed for students who, having completed First Year Seminar, demonstrate the need for further writing instruction. Meets two hours per week (Spring Term). Students identified by the Director of Writing Across the Curriculum are required to take this course. Open to other students only with permission of the Director of Writing Across the Curriculum.

**IDNW 2xx Non-Western Studies (3)**

An engagement with cultures or people whose heritage and/or present life has been significantly shaped by customs, practices, and ideas outside the European tradition.

**IDPL 3xx Pluralism in Contemporary Society (3)**

An examination of contemporary issues and problems arising out of the racial, ethnic, class, gender, and religious diversity of contemporary society, with a special emphasis on raising the students' awareness of the effects of inequality, prejudice, and discrimination in American society.

**IDST 3xx Science, Technology and the World (3)**

An interdisciplinary exploration of the nature, methodology, and scope of science with special emphasis on the interrelationship between science and culture.

**IDWR 099 College Writing Workshop (3)**

Intensive workshop in writing, focusing on discovery, drafting, revision, and editing. Designed to be taken in conjunction with the First Year Seminar. Does not count toward the English Major or Minor.

**IDWV 3xx World Views (3)**

An examination of the various belief systems which have shaped and continue to shape people's lives with special emphasis on how these belief systems compare and contrast with a Christian worldview.

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**INTE 391 Internship (1-3 credits)**

This practical work experience provides sophomores, juniors and seniors with a means to explore career options and to enhance their skill set under the professional supervision of Internship Center staff. This does not substitute for departmental practicum credit. (Pass/Fail or letter-grade.)

**INTE 394 Internship and Monthly Class (4-10 credits)**

Only third-year and fourth-year students who are academically proficient, and have the approval of their academic department, are

eligible. This discipline-related work experience provides for application of classroom theory and development of professional skills. Credit is awarded based upon length and intensity of involvement, the number of individualized learning objectives to be accomplished, as well as prescribed learning activities. Readings, online interaction, learning contract, web portfolio, employer evaluations, and participation in a monthly class are some of the components. This option is available during fall, spring, and summer sessions. (Letter grade only.)

**INTE 395 Internship and Weekly Class (6-12 credits)**

Only third-year and fourth-year students who are academically proficient, and have the approval of their academic department, are eligible. The course description parallels that of INTE 394 with the addition of a weekly class to help students reflect upon and learn from their internship experience. The hybrid (online and in-person) weekly class engages students in corollary issues and topics relevant to their internship experience. This option is available only during the fall and spring semesters. (Letter grade only.)

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**L****LANG 320 Foreign Language Teaching Methodology (3)**

Provides an examination of the spectrum of theories, techniques, methods and approaches to the teaching of foreign languages, with a special emphasis on those that are proficiency based. In addition to learning how to teach second language skills, students will also learn how to effectively promote cultural understanding in the foreign language classroom. Students will be expected to develop instructional materials and show how they plan to utilize "realia" or authentic materials in their classroom teaching.

**LANG 391 Foreign Language Practicum (1-3)**

Collaboration with instructor in teaching a catalogued modern language course at the fundamental or intermediate level. Open to students who have acquired proficiency in the language of instruction. Prerequisite: Instructor's consent.

**LANG 407 Language Curriculum and Instruction (1)**

A seminar emphasizing disciplinary content issues that are specific to modern language teaching. Areas of focus include curricular and instructional decision-making processes; classroom management strategies; assessment techniques; adaptations for exceptional learners; instructional technology applications; and professional development. Concurrent enrollment with EDUC 420, PSYC/HDFS 311 and TEP 435. Prerequisite: admission to the Professional Semester.

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**LANG 493 Modern Languages Seminar (3)**

Integration of theory, research, and practice for modern language students. Considers how Christian perspectives inform, critique, and further a professional orientation in modern languages, and includes a critical study of the philosophical and ethical issues related to the field.

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**LATN 101 Fundamentals of Latin I (3)**

The essentials of Latin grammar, syntax, and vocabulary are studied to build comprehension in reading and writing elementary Latin. Students will also learn more about the structures of their own language as well as the nature of classical Latin culture and society through readings from representative ancient authors. Meets General Education Languages and Cultures requirement.

### **LATN 102 Fundamentals of Latin II (3)**

The study of more subtle grammatical forms, syntax and vocabulary building are emphasized in an effort to prepare students to translate almost any classical Latin text. The study of classical Latin culture and society continues through readings from representative ancient authors. Prerequisite: LATN 101. Meets General Education Languages and Cultures requirement.

### **LATN 201 Intermediate Latin (3)**

Review of Latin grammar and composition along with extensive cultural and literary readings from authors like Cicero, Caesar, Livy, Vergil, Ovid, Pliny, Augustine, Jerome's Vulgate Bible, and some medieval Latin texts. Prerequisites: LATN 101 and 102. Meets General Education Languages and Cultures requirement.

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### **LEAD 310 Leadership Theory And Development (3)**

This course focuses on the foundational as well as the latest theories and approaches to leadership and leader development, emphasizing scientific research and empirical support as well as case studies. Leadership skill development and integration of faith will be emphasized. The course explores the leadership process to enhance effectiveness and organizational performance across multiple levels of analysis and highlights the role of leader, follower, and situational factors that contribute to success.

### **LEAD 312 Leading Organizational Change (3)**

The current environment in which organizations operate is characterized by unprecedented change powered by rapidly emerging technologies, information overload, globalization, higher customer expectations, and changing values, lifestyles, and attitudes. This requires effective leaders to be proactive toward change or be lost in the tide. This course examines change from an organizational perspective by exploring the change process, representative change interventions, and the role of the leader in working with organizational members to accomplish successful change initiatives. Course concepts are drawn from many disciplines and explore change at individual, group, and organizational levels. Students will have the opportunity to analyze success, failure, and multiple dilemmas of public and private sector organizations in order to better understand the causes, implications, potential leader action, and strategies of organizational change. Cross-listed with HRM 312.

### **LEAD 320 Issues and Challenges in Leadership (3)**

This course delves into some of the most pressing leadership issues of the day. Among the topics that may be covered are what personal attributes characterize an effective leader, what obstacles exist to effective leadership, and what role faith plays in shaping one's leadership style and priorities. Drawing from the scientific research, from history, and from scriptural counsel, students will pursue a fuller understanding of how leaders can bring about change in whatever vocational context they find themselves. Students will also engage in significant self-examination to assess their leadership strengths and weaknesses.

### **LEAD 391 Leadership Practicum (3)**

Practical experience or applied project with leadership/service component; open to juniors and seniors.

## **M**

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### **MATH 101 Introduction to Mathematical Sciences (3)**

This course is designed to introduce students to systematic, mathematical thinking as it applies to classical problems in the history of mathematics and as it connects to modern society. Meets General Education Mathematical Sciences requirement.

### **MATH 102 The Mathematics of Growth (3)**

This course is designed to present essential concepts in mathematical modeling, data analysis, and problem solving through contemporary applications which explore the effectiveness of replacing a real-world situation with a mathematical model. Course content includes arithmetic, quadratic, geometric, and logistic growth, as well as, topics in statistics such as the graphical interpretation of data and statistical techniques for analyzing a particular model. Prerequisite: Two years of high school algebra. Meets General Education Mathematical Sciences requirement.

### **MATH 107 Applied Mathematics for Management (3)**

Functions and graphs, mathematics of finance, matrices, simultaneous systems, linear programming, introduction to business calculus. Meets General Education Mathematical Sciences requirement.

### **MATH 108 Intuitive Calculus with Applications (3)**

A one-semester survey of the basic topics of the calculus of functions of one variable, demonstrating their applications in a wide variety of fields. Recommended for students who will take only one semester of calculus. Prerequisite: Two years of high school algebra. Meets General Education Mathematical Sciences requirement.

### **MATH 111 Calculus I (4)**

Introduction to differential and integral calculus with associated analytic geometry. Prerequisite: Two years of high school algebra. Meets General Education Mathematical Sciences requirement.

### **MATH 112 Calculus II (4)**

Further topics in differential and integral calculus, including sequences and series, Taylor polynomials, polar coordinates, methods of integration, and applications of the integral. Prerequisite: a grade of C- or better in MATH 110 or MATH 111.

### **MATH 180 Discrete Mathematics (3)**

This course is designed to highlight discrete (non-continuous) mathematical structures, with a strong emphasis on practical algorithms, a significant computer applications component. Topics include: algorithms, financial models, recursion, recurrence relations, functions, set theory, countability, counting arguments, number representation, logic, proof techniques, mathematical induction, and graph theory. Prerequisite: Passing score on a placement exam given during the first week of class. Students who do not do well on the placement exam are advised to take MATH 102, followed by MATH 180 in a subsequent semester. Meets General Education Mathematical Sciences requirement.

### **MATH 195 First Year Mathematics Seminar (3)**

An introduction to and overview of the discipline of mathematics and the mathematical community. Readings, discussion, and written work focuses on building mature mathematical reasoning skills and understanding the mathematical community, both past and present. Careers in mathematics and related fields are

considered, and attention is given to the idea of Christian vocation and how faith and mathematical thought inform each other. (Offered Spring Term only.)

**MATH 210 Fundamentals of Vector Calculus (1)**

This course teaches fundamental vector calculus; differentiation and integration in a multivariate context. The intended audience is students studying natural science, not for mathematics majors. Prerequisite: a grade of C- or better in MATH 112.

**MATH 211 Calculus III (4)** Vectors, multivariable functions, partial derivatives, multiple integration, and theorems of Green and Stokes. Prerequisite: a grade of C- or better in MATH 112.

**MATH 261 Linear Algebra (3)**

Systems of linear equations, vector spaces, linear dependence, bases, dimension, linear transformations, matrices, determinants, eigenvalues, and geometric applications. Prerequisite: a grade of C- or better in MATH 112 or Instructor's consent.

**MATH 270 Advanced Math for the Sciences (3)**

This course covers applied material in four areas of advanced mathematics that are foundational for scientific work: matrices, vector spaces, Fourier series, and ordinary differential equations. Topics in these areas are taught with an emphasis on building intuition and proficiency with mathematical methods for modeling scientific processes. Prerequisite: MATH 112. Prerequisite or corequisite: either MATH 210 or MATH 211.

**MATH 301 Numerical Analysis (3)**

Error analysis; numerical methods for interpolation, approximation, integration, and solution of non-linear equations and differential equations. Computer programs written and analyzed. Prerequisites: CIS 181 and MATH 211.

**MATH 307 Secondary Mathematics Instruction (2)**

This course is a methods course in secondary mathematics curriculum and instruction. Areas of focus include current national and international curriculum standards and best-practices in secondary mathematics teaching. The course includes a significant practical component of evaluated mock lessons delivered by students, with peer and instructor feedback. (Offered Spring Term only.)

**MATH 308 Differential Equations (3)**

First and second order linear differential equations. Laplace transforms, systems of differential equations with applications. Prerequisite or corequisite: MATH 211.

**MATH 341 Mathematical Modeling (3)**

Discrete deterministic models. Applications of graph theory, linear programming, game theory, election theory, and finite difference equations. Computer simulation. Case studies in areas of student's choice. Prerequisites: CIS 181 and MATH 211.

**MATH 342 Applied Combinatorics (3)**

Counting methods for arrangements and selections, generating functions, recurrence relations, inclusion-exclusion principle, elementary graph theory, trees and searching, network algorithms. Prerequisite: MATH 211.

**MATH 362 Algebraic Structures (3)**

Groups, rings, fields, homomorphisms, and quotient structures. Prerequisite: MATH 261. (Offered Fall Semester only.)

**MATH 382 Geometry (3)**

Topics in Euclidean and non-Euclidean. Prerequisite: MATH 261. (Offered Spring Semester, odd years.)

**MATH 391 Mathematics Practicum (1-3)**

Practical experience under professional supervision. Department approval required.

**MATH 392 History of Mathematics (3)**

Development of mathematical thought from beginning to present. Contributions from ancient Egypt, Babylonia, and Greece; from China, India, and the Arab world; as well as from medieval and modern Western civilization. Prerequisite: MATH 211. (Offered Spring Semester, even years.)

**MATH 405 Introduction to Mathematical Research (3)**

Critical review of papers in current undergraduate mathematical journals. Introduction to and development of the techniques involved in researching and preparing a paper on a mathematical topic. May be repeated for additional credit as the topic/study changes. Prerequisites: MATH 211 and 261.

**MATH 407 Professional Issues in Secondary Mathematics Education (1)**

This course is a seminar course emphasizing disciplinary content issues in secondary mathematics teaching. Classroom management techniques, assessment strategies, adaptations for exceptional learners, and instructional technology will be discussed in the context of equipping students to participate in the professional community of mathematics teachers. (Offered Fall Semester only.)

**MATH 412 Introduction to Real Analysis (3)**

A rigorous development of the real number system from its foundational axioms through calculus including limits, continuity, differentiation, and integration. Prerequisite: MATH 211. (Offered Spring Term only.)

**MATH 490 Topics in Mathematics (3)**

Advanced mathematical topics typically included in courses not currently offered. Possible offerings include complex variables, topology, advanced calculus, number theory, intermediate mathematical statistics. May be repeated for additional credit as the topic/study changes. Prerequisites: MATH 211 and 261, additional MATH courses depending on the topic.

**MATH 491 Independent Study (1-3)**

Reading course in which students are allowed to pursue their interests in a particular area such as history of mathematics, topology, number theory, combinatorics, logic, etc. (Offered on demand.)

**MATH 494 Senior Mathematics Seminar (3)**

Senior capstone course emphasizing independent research, professional development, contributions of mathematics to culture, and discipline specific issues of Christian faith and vocation. (Offered Spring Term only.)

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**MRKT 230 Marketing Principles (3)**

Understanding the role of marketing in the economy and within the firm. Learning to assess and meet the needs of consumers in the firm's target market through development of suitable products which are priced and distributed appropriately with the aid of effective communication.

**MRKT 333 Consumer Behavior (3)**

Application of behavioral theory and research to the consumption behavior of individuals in society. Covers individual perception, group and societal norms, and organizational persuasion. Prerequisite: MRKT 230.

**MRKT 337 Advertising (3)**

Familiarizes students with the nature and scope of advertising and its place in the economic structure, with special emphasis on creative and managerial aspects of advertising, including campaign strategy, the use of mass media, the advertising agency, and social responsibility. Prerequisite: MRKT 230.

**MRKT 339 Market Research (3)**

Study of techniques available for obtaining marketing information, use of research design, questionnaire construction, sampling theory, and data analysis. Prerequisites: MRKT 230 and STAT 281.

**MRKT 357 Personal Selling (3)**

Personal Selling is designed to train students who anticipate a career in sales but also to educate others who may benefit from understanding sales functions such as relationship building and persuasion. Among the topics explored, in a faith context, are: the role of personal selling in business, sales stereotypes, the communication process, personality theory, buying behavior, sales relationships, selling methods, and self-management. Prerequisite: MRKT 230. (Letter grade only.)

**MRKT 360 Topics Course (3)** Study of selected topics in marketing. Content dependent on student and faculty interest.

**MRKT 362 Social Media Marketing (3)**

One of the newest, yet most important, areas of marketing focuses on Social Media and Inbound Marketing. The rapidly increasing adoption of various Social Media platforms by consumers and the general public has opened up some interesting avenues for businesses and other organizations. Social networks level the playing field and put more control in the hands of consumers. Businesses and marketers must adapt and rethink many of their strategies and tactics, as most traditional marketing tactics will not work as well in this new public digital space. Understanding why and how people use Social Media is the first step in developing a sustainable and effective Social Media marketing philosophy, which in turn drives strategies and tactics. Prerequisite MRKT 230.

**MRKT 438 Marketing Management and Strategy (3)**

Integrative study of marketing from a managerial perspective. Emphasis on strategic analysis, planning, and evaluation of marketing systems. Prerequisites: MRKT 230, 333, 337, and 339.

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**MUAP Applied Music (Private Music Lessons) (1, 2 or 4)**

Private lessons in voice, piano, organ, and orchestral instruments are available to music as well as non-music majors. Students may earn one credit in applied music by taking a half-hour lesson per

week or two credits by taking either two half-hour lessons or a one-hour lesson per week. Students are expected to take 14 lessons per semester. Students enrolled in the Bachelor of Music in Performance degree will enroll for four credits of MUAP. Additional fee will be applied for all MUAP courses. Listed below are all of the instruments currently available at Messiah.

MUAP 111 Voice	MUAP 121 Piano
MUAP 122 Harp	MUAP 131 Organ
MUAP 135 Harpsichord	MUAP 141 Flute
MUAP 142 Oboe	MUAP 143 Clarinet
MUAP 144 Bassoon	MUAP 145 Saxophone
MUAP 146 Alto Recorder	MUAP 151 French Horn
MUAP 152 Trumpet	MUAP 153 Trombone
MUAP 154 Euphonium	MUAP 155 Tuba
MUAP 161 Violin	MUAP 162 Viola
MUAP 163 Cello	MUAP 164 Double Bass
MUAP 165 Guitar	MUAP 166 Bass Guitar
MUAP 167 Jazz Improvisation	MUAP 171 Percussion
MUAP 168 Praise and Worship Keyboard	
MUAP 181 Applied Composition	
MUAP 183 Conducting	

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**MUCM 336 Music Business (3)**

The business side of a career as a performer and/or composer. Study of copyright laws, contracts, booking concerts, preparing a publicity packet, publicizing concerts, fundraising, and other related matters.

**MUCM 351 Electronic Music and MIDI (3)**

Applied study of contemporary electronic music techniques. Applications of synthesizers, computers, and software in a variety of musical styles, utilizing the musical instrument digital interface (MIDI). Prerequisites: Music Theory I or equivalent; intermediate piano proficiency. (Alternate years, offered J-Term 2014.)

**MUCM 353 Sound Design (3)**

Introduces sound production within a Digital Audio Workstation and in synthesizers. Students learn to record, edit, shape, mix, and master digital audio.

**MUCM 431 Foundations of Music Ministry (3)**

Organization and administration of a comprehensive church music program: multiple choir programs, rehearsals, specific musical services, facilities and equipment, budgets, literature, and recent trends in church music.

**MUCM 443 Practicum in Church Music (1-2)**

Guided experience in leading church choirs. Student assigned to direct a local church choir (children, youth, or adult) with observations by College supervisor.

**MUCM 444 Practicum in Studio Teaching (1)**

Practical experience in teaching music in studio setting. Observation and evaluation by applied music instructor. Prerequisites: MUTH 101, 102, minimum of four credits in applied music.

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**MUED 140 Voice Class (1)**

Applied voice in a class setting. Principles and techniques of voice production. Emphasis on basic knowledge of the voice in preparation for teaching vocal music in the classroom or choral setting.

**MUED 201 Introduction to Music Education (1)** This course is designed to provide students with an introduction to the music teaching profession. Course content is intended to prepare students for subsequent courses required for Pennsylvania certification to teach vocal and instrumental K-12. This course will include a ten-hour field experience that is comprised of visits to local schools to do observation only (band, orchestra, chorus, elementary general and secondary general music). Prerequisite: EDUC 120.

**MUED 211 String Class (1)**

Applied strings in a class setting. Designed to provide a practical playing knowledge of each string instrument (violin, viola, cello, string bass). Principal objective to prepare prospective school teachers to instruct beginners in strings.

**MUED 221 Percussion Class (1)**

Applied percussion in a class setting. Emphasis on techniques of playing snare drum in first portion of semester. In the latter part of the course attention is given to timpani, mallet, and effect instruments.

**MUED 222 Brass Class (1)**

Applied brass in a class setting. Basic techniques, problems, and teaching techniques for each brass instrument. Emphasis on ensemble performance.

**MUED 227 Maintenance and Repair of Band Instruments (3)**

Instruction in maintaining wind, brass, and percussion instruments as well as laboratory experience in making all repairs that do not require an extensive professional repair shop. Students assemble a repair kit capable of handling normal school instrument repairs and perform a major reconstruction of a damaged instrument as a final project.

**MUED 240 Diction for Singers (1)**

A study of the principles of English, Italian, Latin, French, and German singing diction through the use of the International Phonetic Alphabet. The course includes group spoken drills and critique of individual singing performances.

**MUED 251 Conducting I: Fundamentals (2)**

First semester experience intended to emphasize the most fundamental aspects of conducting including basic techniques such as score reading, ear training for the conductor, basic beat patterns, use of the left hand, and transposition. Prepares students to move into 300-level Instrumental and/or Choral Conducting.

**MUED 301 Curriculum and Instruction: 6-12 Choral Music (with Field Experience) (3)** This course is designed to prepare pre-service teachers with materials and teaching strategies to plan and implement choral music instruction in the middle and secondary school settings: Grades 6-12. The course will involve the study of music education philosophies, repertoire selection, rehearsal planning, and assessment.. Prerequisite: Admission to the Teacher Education Program. The course will include three, three-hour visits including one in a local middle school and two in local high schools. These visits will be observation only.

**MUED 311 Woodwind Class (1)**

Study of the clarinet to establish a basis for other woodwinds. Basic techniques of playing the flute, oboe, saxophone, and bassoon.

**MUED 351 Conducting II: Choral (2)**

This course will emphasize techniques directly associated with choral conducting. Further development of aural and physical techniques will be enhanced by discussion of repertoire, programming, and other issues specific to the preparation, teaching, and performance of choral music. Prerequisite: MUED 251.

**MUED 352 Conducting II: Instrumental (2)**

This course will emphasize techniques directly associated with instrumental conducting. Further development of aural and physical techniques will be enhanced by discussion of repertoire, programming, and other issues specific to the preparation, teaching and performance of instrumental music. Prerequisite: MUED 251.

**MUED 401 Curriculum and Instruction: Instrumental Music 4-12 (with Field Experience) (3)**

This course is designed to prepare pre-service teachers with materials and teaching strategies to plan and implement instrumental music instruction in school music programs in grades 4-12. The course will involve the study and evaluation of music education philosophies, materials, methods, approaches, and issues. Prerequisite: Admission to the Teacher Education Program. Regular visits to local elementary schools to teach individual instrumental lessons are included (approximately six hours).

**MUED 402 Curriculum and Instruction: K-5 General Music (with Field Experience) (3)** This course is designed to prepare pre-service teachers with material and teaching strategies to plan and implement general music instruction in the elementary school setting: Grades K-5. The course will involve the study and evaluation of general music education philosophies, materials, methods, approaches, and issues. Prerequisite: Admission to the Teacher Education Program.

**MUED 407 Student Teaching Seminar (1)**

A seminar emphasizing disciplinary content issues that are specific to music teaching. Areas of focus include curricular and instructional decision-making processes; classroom management strategies; assessment techniques; adaptations for exceptional learners; instructional technology applications; and professional development.. Prerequisite: Admission to the Professional Semester.

**MUED 421 Marching Band Methods and Materials (3)**

Materials and techniques for training high school marching bands. Offered as an independent study experience with the student assigned to work with a practicing high school band director.

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**MUEN xxx Music Ensembles.** Participation in ensembles is open to all students. (All Ensembles are Pass/Fail grade only.)

**MUEN 111 Concert Choir (.5)**

Consists of approximately 45 mixed voices, chosen by audition. Literature includes mainly sacred choral music drawn from the Renaissance through the 20<sup>th</sup> century. Principal performances include Christmas concert and Spring concert, Spring Break tour and concerts at area churches. Two rehearsals per week.

**MUEN 112 Choral Arts Society (.5)**

College-community chorus, consisting of approximately 100 singers. Active in the four-month period, January to April. Annual spring concert presents a major choral work with full orchestral accompaniment.

**MUEN 113 Women's Ensemble (.5)**

This chorus of 75 College women functions in the Fall Semester and participates in the Christmas concert. One rehearsal per week.

**MUEN 114 One College Ave (.5)**

Consists of 16 vocalists plus a rhythm section. Performs jazz and popular classics. Performance schedule includes two on-campus appearances and occasional programs at local events. Two rehearsals per week.

**MUEN 115 Men's Ensemble (.5)**

Open to all students by audition. Performs a variety of repertoire for male voices for Christmas concerts, spring concerts, and chapels. One rehearsal per week.

**MUEN 116 Chamber Singers (.5)**

A select group of 12-16 members drawn from Concert Choir. Performs a cappella music of all periods. One rehearsal per week. Performs in Christmas and spring concerts and spring break tour with Concert Choir.

**MUEN 117 Pit Orchestra (.5)**

Select ensemble which accompanies musical theatre and opera productions.

**MUEN 118 Tuba / Euphonium Choir (.5)****MUEN 121 Symphony Orchestra (.5)**

Symphony orchestra open on an audition basis. Performs literature drawn from the Baroque through the 20<sup>th</sup> century, presenting three concerts each academic year. Also accompanies major choral and stage productions. Two rehearsals per week.

**MUEN 122 Symphonic Winds (.5)**

Concert band of selected instrumentation, composed of approximately 60 musicians, open on an audition basis. Performs the highest quality in wind band literature as well as light and popular selections. Two rehearsals per week.

**MUEN 123 Horn Choir (.5)**

The Horn Choir is open to all students and community members who play horn. The group rehearses once a week and performs once a semester on campus but is also available for performances at outside venues. The Horn Choir performs original and transcribed works for a variety of ensemble sizes, from 3 to 12 parts, although the primary focus is on quartet settings.

**MUEN 124 Brass Choir (.5)**

Brass choir is a select ensemble chosen by audition. Performs on and off campus. One rehearsal per week.

**MUEN 125 Collaborative Piano (.5)**

Guided experience in piano accompanying. Requires accompanying for one performer in weekly lessons and public appearances.

**MUEN 126 Flute Choir (.5)**

An ensemble of 10-12 flutes including alto and bass. Performs in Chapel and occasional off-campus worship services. One rehearsal per week.

**MUEN 127 Chamber Ensemble (.5)**

Various chamber groups are formed with the purpose of providing

performing experience to qualified instrumentalists. Includes groups such as Saxophone Quartet, String Quartet, Recorder Consort, and Trombone Choir.

**MUEN 128 Concert Handbell Choir (.5)**

Includes 12 ringers chosen by audition in the fall. Performs in the Christmas concert, spring concert, and in various off-campus concerts. Two one-hour evening rehearsals per week.

**MUEN 129 Trombone Choir (.5)****MUEN 130 Guitar Ensemble (.5)**

An ensemble of three to six performers that develops players' note reading ability and fingerstyle techniques. The group plays a wide variety of music from the Renaissance to the 20<sup>th</sup> century. The ensemble performs on and off campus. One rehearsal per week.

**MUEN 131 Percussion Ensemble (.5)**

Consists of 10 to 12 members performing standard percussion and marimba ensemble repertoire. The group performs each semester.

**MUEN 132 Recorder Consort (.5)**

Small ensemble designed to include players on soprano, alto, tenor, and bass recorders. The music performed is taken predominantly from the Renaissance and Baroque periods. The ensemble performs one or two times at Christmas as well as in the Small Ensembles Concert each spring.

**MUEN 133 Chamber Strings (.5)**

String chamber groups rehearse weekly and perform on and off campus. Includes groups such as String Trio, String Quartet, or String Octet.

**MUEN 134 Jazz Combo – Intermediate (.5)**

Small group jazz offering for students who wish to develop improvisational skills through performance in a small ensemble. Rehearses once a week and performs primarily on campus. Prerequisite: Instructor's consent.

**MUEN 135 Wind Ensemble (.5)**

This 40-50 member select wind ensemble performs the highest level of wind band repertoire. Available for the most experienced players, this group rehearses two times per week, performs on and off campus. Records regularly and tours yearly.

**MUEN 138 United Voices of Praise (.5)**

Gospel choir of approximately 60-100 singers that meets once a week, performs on campus as well as local and regional churches.

**MUEN 139 Music Ministry Team (.5)**

Small student ensembles of variable instrumentation which perform in off-campus worship services. Open by audition.

**MUEN 140 Messiah College Singers (.5)**

A 20-member student ensemble which performs contemporary and traditional sacred music. Open by audition.

**MUEN 141 JazzONE (.5)**

Big Band ensemble performs standard arrangements and more contemporary charts. Appears on campus each semester and occasionally in off-campus programs and tours. One rehearsal per week.

**MUEN 142 Jazz TWO (.5)**

Big Band ensemble performs standard arrangements and more contemporary charts. Appears on campus each semester. One rehearsal per week.

**MUEN 143 Woodwind Quintet (.5)** Chamber ensemble consisting of flute, oboe, clarinet, horn, and bassoon.

**MUEN 144 Brass Chamber Music (.5)** Brass quartets or quintets formed to perform throughout the semester.

**MUEN 145 Trumpet Ensemble (.5)** An all-trumpet ensemble comprised of music majors that performs locally and competes nationally.

**MUEN 146 Piano Quartet (.5)** Ensemble of piano duets and quartets for campus and community performances.

**MUEN 147 Saxophone Quartet (.5)** An ensemble comprised of soprano, alto, tenor, and baritone saxophones.

**MUEN 148 Seven (.5)**

A small traveling music ministry ensemble comprised of six to eight students that travels extensively during the summer. A wide range of music is performed highlighting various talents of the performers. Students are selected by audition.

**MUEN 149 Opera Workshop (.5)** Designed to provide students with an opportunity to focus on literature from Opera. This course will study basic knowledge and protocol of the stage as well as the craft of performing opera. Topics include stage direction and management, role development, learning of repertoire, and performance techniques. The course will include performance of "opera moments" in addition to a final Opera Scenes Concert. Designed as an opportunity for the more advanced singer, admission to this course will be based on the instructor's discretion.

**MUEN 150 Clarinet Choir (.5)**

**MUEN 152 Chamber Orchestra (.5)** A select group of the most advanced orchestral musicians performing chamber orchestra repertoire from the Baroque to the present. Available for the most experienced players by audition, this group rehearses once weekly and performs on and off campus. Records and tours regularly.

**MUEN 234 Jazz Combo - Advanced (.5)**

Small group jazz offering for students with developed improvisational skills. Rehearses once a week and performs both on and off campus. Prerequisite: audition.

**MUGE 101 Fundamentals of Music Theory (3)**

This course will provide students the history and appreciation of Western music from the Renaissance to the 20<sup>th</sup> century through lecture, listening, and class discussion, along with an opportunity to study the basic concepts involved in the analysis and composition of music. Designed for non-music majors, this course also serves as a viable precursor to Music Theory I (MUTH 101) so that music majors or minors with no prior knowledge of theory can better prepare to follow the course of study required for their degrees. Fundamentals of Music Theory will not count toward the degree for students who major or minor in music. Meets General Education Arts requirement.

**MUGE 203 Music Through Piano (3)**

An introduction to Western music, including American popular styles, using the performance medium of the keyboard: piano, harpsichord, and synthesizer. Includes hands-on experience in performing keyboard music. Meets General Education Arts requirement.

**MUGE 208 Music Through String Instruments (3)**

Provides students with an introduction to the history and appreciation of Western music from the Renaissance to the 20<sup>th</sup> Century and the opportunity to study the elements of music through playing the violin, viola, cello, or bass. The use of the elements of music by the major composers of the various historical periods is examined through reading, listening to recordings, class discussion, and the concert attendance. Students who do not have their own instrument can use one provided by the Department of Music for a nominal instrument use fee. Meets General Education Arts requirement.

**MUGE 209 Survey of Christian Song (3)**

An introduction to music employed in Christian worship, including consideration of the worship experience, historical and current hymnody, and music for the trained choir. Includes hands-on experience in both keyboard playing and song leading. Meets General Education Arts requirement.

**MUGE 210 American Popular Music (3)**

Survey concentrates on musical styles and types popular in American culture during the 19<sup>th</sup> and 20<sup>th</sup> Centuries; content includes the investigation of such types as pop songs, ragtime, jazz, and rock. The course requires active participation in listening to and performing popular music. Meets General Education Arts requirement.

**MUGE 213 Music Through Percussion (3)**

Provides students with an introduction to the history and appreciation of Western music from the Renaissance to the 20<sup>th</sup> Century. Provides opportunity to study the elements of music through percussion instruments. The course, which will include the study of music by the major composers of the various historical periods, is examined through reading, listening to recordings, class discussion, and concert attendance. Meets General Education Arts requirement.

**MUGE 217 Music Through Singing (3)**

This course helps students to gain an understanding of the voice through lecture/ demonstration, recital attendance, and singing in both class and individual settings. Class members will experience a variety of vocal styles and singing techniques as they survey the Western tradition through vocal music. Meets General Education Arts requirement.

**MUGE 218 Music Through Guitar (3)**

Students will explore the role of the guitar and related fretted strings throughout the various historical periods from the Renaissance through the 20<sup>th</sup> century. Class members experience the basic elements of music as they learn to perform chords and melodies on the guitar. Other activities include watching videos, listening to recorded guitar music, and attendance at live concerts. Class members must supply their own guitars. Two class sessions and one-hour lab weekly. Meets General Education Arts requirements.

**MUGE 219 Music Through the Recorder (3)**

Provides students with an introduction to the history and appreciation of Western music from the Renaissance to the 20<sup>th</sup> Century. Provides opportunity to study the elements of music through learning to play the recorder. The use of the elements of music by the major composers of the various historical periods is examined through reading, listening to recordings, class discussion, and concert attendance. Meets General Education Arts requirement.

**MUGE 223 Jazz Improvisation (3)**

Studies in the art of jazz improvisation through jazz theory, improvisation techniques, transcription and performance. Students will also survey the history of jazz and illuminate its impact on American music and society, including contemporary worship. Meets General Education Arts requirement.

**MUGE 224 Songwriting for Beginners (3)**

An introduction to the art of songwriting and music composition. Designed for the novice musician, this course also accommodates those with more substantial skills in the area of music. Class participants will have the opportunity to develop original ideas into song with the guidance of a composition professor. Through the writing of songs and setting of text (both sacred and secular), this course will provide for the study of music theory, composition, and history. The course will also provide students with the history and appreciation of Western music from the Renaissance to the 20<sup>th</sup> century through lecture, listening and class discussion. Meets General Education Arts requirement.

**MUGE 225 Worship Music through the Guitar (3)**

Applied guitar study with the performance in worship as the focus. This course will serve as a guide for the use of the guitar in modern worship settings. Through attention to guitar technique, chord reading, music reading, and accompanying, the students will develop the skills necessary to lead and accompany worship in a variety of styles. Students must have their own guitar. Meets General Education Arts requirement.

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**MUMH 303, 304, 305 History of Music I, II, III (2, 3, 3)**

Study of music from medieval to present day, stressing musical styles of various historical periods, schools, and individual composers.

**MUMH 338 Studies in Ethnic Music (2)**

Designed to provide students with musical background opportunity to study a given Non-Western musical culture in depth. Through readings, listening, and direct musical experience students will come to understand some of the cultural and aesthetic differences of a specific non-Western music system. Meets General Education Non-Western Studies requirement.

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**MUSI 001 Concert Attendance (0)**

Involves both a weekly music seminar (student recital period) and a minimum of ten concerts/recitals per semester. Required of music majors each semester of full-time study except student teachers. (Pass/Fail grade only.)

**MUSI 271 Musical Theatre (3)**

Practical experience involving principles and techniques of musical theatre; performance and production; singing, acting, dancing, lighting, set construction; course culminates in the performance of a

full musical or light opera (offered three consecutive years in a four-year cycle). Cross-listed with THEA 260.

**MUSI 291 Coaching Techniques (1)**

Through intensive coaching sessions with faculty, artists-in-residence, and guest artists, students are grounded in the skills necessary for creating and leading productive rehearsals. Students are also given practical experiences in coaching. Literature performed consists of standard accompanied solo and chamber works. One written project is required.

**MUSI 301 Vocal Literature (1)**

Beginning with the Baroque period, students survey the art song repertoire of Germany, Italy, Spain, France, England, and the United States. Course content includes lectures, application of IPA, listening, in-class performances, and written assignments. Special attention is paid to performance practice traditions and historical context.

**MUSI 302 Instrumental Literature (1)**

Broad survey of the instrumental solo and chamber music of the Common Practice Period (ca. 1600 to 1900) and Modern Era that include piano. Course content includes lectures and readings, listening and performance, and a large instrument-specific project. Special attention is paid to performance practice traditions and historical context.

**MUSI 303 Piano Literature (1)**

Beginning with the 17th century, students survey the literature for piano through the major works of such diverse composers as Rameau, Bach, Mozart, Beethoven, Chopin, Rachmaninoff, Debussy, and Prokofiev. Course content includes lectures, readings, listening, analysis, performance, and written assignments. Special attention on performance practice traditions and historical context.

**MUSI 343 Piano Pedagogy (3)**

Fundamentals and techniques of teaching piano, with studio teaching of individuals and small groups. Survey of methods and literature for pianists of various age levels, supplementary materials for music theory and appreciation, and teaching labs.

**MUSI 344 Instrumental Pedagogy (3)**

A foundational study of elements and materials used for teaching instrumentalists. Included topics are ergonomics and physical maintenance, rhythm and ensemble performance, developing better sight-reading skills, stylistically-correct performance practice, and a survey of methods and aids for the studio setting.

**MUSI 452 Vocal Pedagogy (3)**

A study of the anatomy of the voice and the singing process. An exploration of the techniques and methods most commonly used in teaching voice. A survey of related topics such as diction, repertoire, vocal health, and voice classification. Prerequisite: one year of MUAP 111 and one year of MUAP 211.

**MUSI 481 Senior Seminar in Music (1)**

This capstone course investigates music's role in contemporary education, worship, and in the broader spectrum of American culture. Each student will formulate a personal artistic philosophy relating to his/her mission as an active Christian musician.



**MUSI 491 Independent Study (1–3)**

Independent study and research under the supervision of a College instructor, whose approval must precede enrollment. Topic to be determined by the student in consultation with the supervising instructor.

**MUSI 497, 498 Major Honors (3, 3)**

Independent creative and/or research program for junior and senior-level students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5 and departmental approval required for enrollment.

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**MUTH 101 Music Theory I (3)**

Basic elements of music, including scales, intervals, triads; emphasis on the analysis of melody and rhythm; harmonic analysis of root position chords; transpositions for all orchestral instruments; elementary keyboard harmony.

**MUTH 102 Music Theory II (3)**

Harmonic analysis of music written during the common practice period (ca. 1700–1850); composition in chordal texture, orchestrating for small ensembles (e.g., string quartet, brass quintet).

**MUTH 107, 108, 207 Sight Singing and Ear Training I, II, III (1, 1, 1)**

Sight singing of melodies employing solfeggio; aural analysis of melodic, rhythmic, and harmonic aspects of music.

**MUTH 109, 110 Keyboard I, II (1, 1)**

Keyboard instruction in a lab setting; emphasis upon functional skills such as sight reading, score reading, harmonization, and transposition; designed to prepare music majors to successfully complete the Keyboard Proficiency Test.

**MUTH 201 Music Theory III (3)**

Harmonic analysis of music written during the Romantic period (ca. 1840–1910); composition projects in the more elementary forms (e.g., binary, ternary, theme and variations); orchestrating for ensembles and chamber orchestra; advanced keyboard harmony.

**MUTH 202 Music Theory IV (3)**

Analysis of 20<sup>th</sup>-century music; composition projects in more complex forms; orchestrating for wind ensemble, jazz band, etc.; advanced keyboard harmony, including modulation.

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**N****NURS 203 Historical and Conceptual Basis for Nursing (3)**

This course is designed to introduce the student to concepts basic to professional nursing from a Christian worldview with emphasis on person, health, environment, and nursing. It introduces the philosophy and organizing framework for the study of nursing at Messiah College. Consideration is given to the theoretical basis of professional nursing practice and to select nursing theories, with emphasis on Neuman's Systems Theory. The historical development of nursing from its Christian roots is briefly presented and the roles of the professional nurse in health care are introduced: provider of care, designer/manager/coordinator of care, and member of the profession. Course is limited to nursing majors or by special permission. (Three lecture hours/week.)

**NURS 210 Health Assessment (3)**

The focus of this course is to establish a foundation in conducting a thorough health assessment. Included is an introduction to using appropriate communication techniques, obtaining a detailed health history, demonstrating physical assessment skills, and cultivating critical thinking. Physiological, psychological, sociocultural, developmental and spiritual variables are introduced as they relate to the nursing process. Essential assessment techniques include inspection, palpation, percussion and auscultation with an emphasis on expected findings and variations of those findings. Students practice comprehensive health history taking and physical assessment skills in laboratory sessions. (Two lecture hours/week, three laboratory hours/week.) Prerequisites: BIOL 185, BIOL 186, CHEM 103, PSYC 101/SOAN 101/HDFS101, PSYC 209/HDFS 209. Pre- or co-requisites: NURS 203, NURS 211, BIOL 189, NURS 303. (Offered Spring Term only.)

**NURS 211 Foundations of Nursing Practice (3)**

The focus of this clinical nursing course is on the beginning application of core competencies and core knowledge to create a foundation for nursing practice. Emphasis is on scientific rationale, critical thinking and competence in the implementation of skills within the nursing process. Intervention strategies focus on primary and secondary prevention. Physiological, psychological, sociocultural, developmental and spiritual variables are introduced as they relate to the nursing process. Clinical learning experiences occur in the simulated laboratory setting as well as various client care settings with emphasis on the provider of care role. (1 lecture hour/week, 6 clinical hours/week.) Prerequisites: BIOL 185, BIOL 186, CHEM 103, PSYC 101/SOAN 101/HDFS 101, PSYC 209/HDFS 209. Prerequisite or corequisite: NURS 203, NURS 210, BIOL 189, NURS 303. (Offered Spring Term only.)

**NURS 303 Pathophysiology (3)**

This is a non-clinical nursing course presenting major pathophysiology concepts. The subject matter focuses on disorders of human physiological systems from malfunction at the cellular, tissue, and organ levels. Students that entered Messiah in a cohort prior to Fall 2013 take this course for 2 credits, under the title Pathopharmacology I. (3 lecture hours/week) Prerequisite: NURS 203. Prerequisite or corequisite: BIOL 189. Corequisites: NURS 210, NURS 211. (Offered Spring Term only.)

**NURS 304 Pharmacology (3)**

This is a non-clinical nursing course presenting principles and major concepts of pharmacology. The subject matter focuses on major drug classifications, with associated uses, effects, and patient education. Students that entered Messiah in a cohort prior to Fall 2013 take this course for 2 credits, under the title Pathopharmacology II. (3 lecture hours/week). Prerequisites: NURS 210, NURS 211, NURS 303, BIOL 382, BIOL 189. Corequisites: NURS 310, NURS 311. (Offered Fall Semester only.)

**NURS 305 Nursing Research I (2)**

Introduces, defines and emphasizes methods of qualitative and quantitative systematic inquiry. Designed to help students become critical consumers of published research. (Two lecture hours/week.) Prerequisites: NURS 310, NURS 311. Prerequisite or corequisite: STAT 269. Corequisites: NURS 222, NURS 312, NURS 313. (Offered Spring Term only.)

**NURS 310 Nursing Care of the Childbearing Family (4)**

The focus of this clinical nursing course is the client system composed of the childbearing family during all phases of childbirth from conception through the postpartum period. Throughout this course, emphasis is placed on providing culturally competent care by assessing the wide range of characteristics and configurations of the childbearing family. Students continue to develop and build on concepts and skills presented in previous nursing courses. Physiological, psychological, sociocultural, developmental and spiritual variables are incorporated in the nursing process. Intervention strategies focus on primary, secondary, and tertiary prevention. Clinical learning experiences may occur in inpatient, outpatient, and community settings. Emphasis is on the provider of care role and introduction of the designer/manager/coordinator of care role. The length of this course is one-half of the Fall Semester. (Four lecture hours/week, 12 clinical hours/week.) Prerequisites: NURS 203, NURS 210, NURS 211, BIOL 189, BIOL 382. Corequisites: NURS 304, NURS 311.

**NURS 311 Nursing Care of Adults and Older Adults I (4)**

The focus of this clinical nursing course is the client system composed of adults and older adults, in the context of families, experiencing stressors that threaten system stability. Physiological, psychological, sociocultural, developmental and spiritual variables are incorporated in the nursing process. Intervention strategies focus on primary, secondary, and tertiary prevention. Clinical learning experiences may occur in medical-surgical inpatient settings as well as various community settings and emphasize the provider of care role and introduce the designer/manager/coordinator of care role. The length of this course is one-half of the Fall Semester. (Four lecture hours/week, 12 clinical hours/week.) Prerequisites: NURS 203, NURS 210, NURS 211, BIOL 189, BIOL 382. Corequisites: NURS 304, NURS 310.

**NURS 312 Nursing Care of Adults and Older Adults II (4)**

This course is a continuation of Nursing Care of Adults and Older Adults I and is focused on the client system composed of adults and older adults, in the context of families, experiencing stressors that threaten system stability. Physiological, psychological, sociocultural, developmental and spiritual variables are incorporated in the nursing process. Intervention strategies focus on primary, secondary, and tertiary prevention. Clinical learning experiences may occur in medical-surgical inpatient settings as well as various community settings and emphasize the provider of care role and introduce the designer/manager/coordinator of care role. The length of this course is one-half of the Spring Term. (Four lecture hours/week, 12 clinical hours/week.) Prerequisites: NURS 310, NURS 311, NURS 304. Corequisites: NURS 305, NURS 313, NUTR 222

**NURS 313 Nursing Care of Infants, Children and Adolescents (4)**

The focus of this clinical nursing course is the client system composed of infants, children and adolescents in the context of family. Throughout the course emphasis is placed on providing care for children of various ages who have attained system stability or wellness or who are experiencing stressors affecting normal lines of defense. Physiological, psychological, sociocultural, developmental and spiritual variables are incorporated in the nursing process. Intervention strategies focus on primary and secondary prevention with some tertiary intervention. Clinical experiences emphasize the provider of care role and introduce the designer/manager/coordinator of care role. Clinical learning experiences may occur in pediatric inpatient, outpatient, and community settings. The length

of this course is one-half of the Spring Term. (Four lecture hours/week, 12 clinical hours/week.) Prerequisites: NURS 310, NURS 311, NURS 304. Corequisites: NURS 305, NURS 312, NUTR 222.

**NURS 394 Advances in Nursing I (3)** Additional nursing principles of special interest to the instructor and/or students. Lecture hours and clinical laboratory to be determined. Prerequisites: NURS 203, NURS 210, NURS 211 or with special permission.

**NURS 405 Nursing Research II (2)**

Reviews, clarifies, and extends nursing research concepts presented in NURS 305 Emphasizes the methods and use of evidence-based practice in the provider and designer/manager/coordinator of care roles. (Two lecture hours/week.) Prerequisite: NURS 305, NURS 312, NURS 313, NUTR 222. Corequisites: NURS 411, NURS 410. (Offered Fall Semester only.)

**NURS 410 Psychiatric/Mental Health Nursing (4)**

The focus of this clinical nursing course is the client system composed of adults and adolescents in the context of family. Concepts are refined for application with clients who are mentally ill or are experiencing other difficulties in living. Theory pertains to the various disorders or difficulties in living. Throughout the course emphasis is placed on providing care for persons who have attained system stability or wellness or who are experiencing stressors affecting normal lines of defense. Physiological, psychological, sociocultural, developmental and spiritual variables are incorporated in the nursing process. Intervention strategies focus on primary and secondary prevention with some tertiary intervention. Clinical experiences emphasize the provider of care role and introduce the designer/manager/coordinator of care role. Clinical learning experiences may occur in the psychiatric inpatient, outpatient, and community settings. The length of this course is one-half of the Fall Semester. (Four lecture hours/week, 12 clinical hours/week.) Prerequisites: NURS 305, NURS 312, NURS 313, NUTR 222. Corequisites: NURS 405, NURS 411.

**NURS 411 Nursing Care of the Critically Ill (4)**

The focus of this clinical nursing course is the client system experiencing crisis composed of persons across the lifespan in the context of family. Throughout this course increasingly complex health problems are examined. Emphasis is on identification of client system strengths and stressors affecting lines of resistance. Physiological, psychological, sociocultural, developmental and spiritual variables are incorporated in the nursing process. The concept of secondary prevention is expanded in this course to include the provider of care role in acute/critical care settings. The concept of tertiary prevention is expanded as it relates to the designer/manager/coordinator of care role in the acute and critical health care environment. Clinical learning experiences occur in adult and pediatric critical care settings and in emergency medical services. The length of this course is one-half of the Fall Semester. (Four lecture hours/week, 12 clinical hours/week.) Prerequisites: NURS 305, NURS 312, NURS 313. Corequisites: NURS 405, NURS 410.

**NURS 412 Community Health Nursing (4)**

The focus of this clinical nursing course is client systems in the community experiencing stressors that threaten system stability. Physiological, psychological, sociocultural, developmental and spiritual variables in the community setting are incorporated in the

nursing process. Intervention strategies focus on primary, secondary and tertiary prevention, with an additional emphasis on health promotion and risk reduction following the most current Healthy People guidelines. Clinical learning experiences focus on vulnerable populations, health care disparities, and social justice issues, including health care systems and policy development. A discussion of nursing responsibilities in the care of the community in crisis is also included. Community and public health nursing roles emphasized are: provider of care, designer/manager/coordinator of care, and member of the profession. (Four lecture hours/week, 12 clinical hours/week.) Prerequisites: NURS 405, NURS 410, NURS 411, NURS 495. Corequisites: NURS 413, NURS 496. (Offered Spring Term only.)

#### **NURS 413 Leadership in Nursing (3)**

The focus of this course is development of the leadership for entry level nursing practice with emphasis on the designer/manager/coordinator of care role. The concepts of primary, secondary, and tertiary prevention are examined in relation to leadership and management principles applied in health care organizations and systems. Critical skills such as communication, collaboration, negotiation, delegation, coordination, evaluation of interdisciplinary work, and the application of outcome-based practice models are cultivated. (One lecture hour per week, six clinical hours per week.) Prerequisites: NURS 405, NURS 410, NURS 411, NURS 495. Corequisites: NURS 412, NURS 496. (Offered Spring Term only.)

#### **NURS 491 Independent Study (1-3)**

Independent study under the supervision of an instructor whose approval must precede the student's enrollment.

#### **NURS 494 Advances in Nursing II (3)**

Advanced nursing principles of special interest to the instructor and/or students. Lecture hours and clinical laboratory hours to be determined. Prerequisites: NURS 303, NURS 304, NURS 305, NURS 310, NURS 311, NURS 312, NURS 313 or by special permission.

#### **NURS 495 Senior Practicum (3)**

The focus of this clinical course is development of clinical decision-making skills and refinement of clinical coordinating behaviors with groups of clients with emphasis on the designer/manager/coordinator care role. The course will provide opportunities for students to synthesize theoretical knowledge, clinical skills, nursing process, and professional role behaviors in clinical laboratories and through peer seminars. The clinical experience will focus on the care of groups of clients in a variety of settings in collaboration with clinical nurse preceptors. Prerequisites: NURS 405, NURS 410, NURS 411. (Offered J-Term only.)

##### **Grantham Option:**

Three credit hours: 1 lecture hour per week, 90 hours total clinical laboratory hours flexibly scheduled in collaboration with selected, approved, on-site clinical nurse preceptors.

##### **International Options:**

**Thailand.** This option will focus upon the development of clinical decision-making skills and refinement of clinical coordinating behaviors with groups of patients in an international setting, specifically in Thailand. The option will provide opportunities for students to synthesize theoretical knowledge, clinical skills, nursing process, and professional role behaviors with an emphasis on global health issues and

cross-cultural understanding of cultural diversity. The clinical experience will focus on the care of patient groups in an urban setting of Chiang Mai and in the rural villages of Thailand. Clinical nurse preceptors will be Messiah College faculty, Thai nurses and Thai student nurses. A community health project will be included. Enrollment recruitment will focus on students who have career aspirations for international nursing or mission nursing.

**Zambia.** The focus of this option is upon the development of clinical decision-making skills and refinement of clinical coordinating behaviors with groups of clients in an international setting, specifically at Macha Mission Hospital, Zambia. The option will provide opportunities for students to synthesize theoretical knowledge, clinical skills, nursing process, and professional role behaviors with an emphasis on global health issues and cross-cultural understanding of cultural diversity. The clinical experience will focus on the care of client groups in a rural African community greatly impacted by the Sub-Saharan AIDS pandemic and two other diseases of poverty targeted by the Global Fund: malaria and tuberculosis. Clinical nurse preceptors will be Messiah nursing faculty and Zambian nurses, if qualified, and as determined by Macha Hospital's Sister Tutor and Medical Director. Enrollment recruitment will focus on students who have career aspirations for international nursing or mission nursing.

#### **NURS 496 Senior Seminar in Nursing (3)**

This senior capstone course ensures that students engage in critical thinking about the philosophical and ethical assumptions of the Christian vocation of nursing. The focus of the course is on one's role as a member of a profession and how faith intersects with that role. A variety of current professional issues are examined with particular emphasis on preparing for the transition to professional practice, engaging in continued professional development, promoting excellence in nursing practice, complying with legal and ethical guidelines and principles, and influencing health care policy. Prerequisites: NURS 405, NURS 410, NURS 411, NURS 495. Corequisites: NURS 412, NURS 413. (Offered Spring Term only.)

#### **NUTR 099 Opportunities in Nutrition, Food Service, and Dietetics (1)**

This course is designed for students in the Department of Nutrition and Dietetics as well as for students considering majors in this department. Course topics include the history of Nutrition, Food Service, and Dietetics, current opportunities and trends, knowledge and skills required for success, ethical issues, and the practical application of Biblical principles and scientific evidence in everyday practice. Prerequisite: First year student or Nutrition Science, Nutrition and Dietetics, or Nutrition and Food Service Management Major, or Instructor's consent.

#### **NUTR 110 Science and Nutrition (3)**

A survey of basic nutrition science for non-majors. Includes methods of obtaining and evaluating data, nutrient sources and function, and practical application. Two lectures and three hours of laboratory per week. Not appropriate for students who have taken or are planning to take NUTR 222. Meets General Education Laboratory Science requirement.

#### **NUTR 121 Food and Food Science (3)**

Basic examination of the principles of food science, with an emphasis on techniques which illustrate those principles. Two

lectures and three hours of laboratory per week. Prerequisite: CHEM 105, CHEM 103, NUTR 110, or Instructor's consent. (Offered Spring Semester only.)

#### **NUTR 222 Nutrition Theory (3)**

Introduction to nutrition science for allied health majors. Includes nutrient sources and functions, nutrient metabolism and basic dietary assessment. Prerequisite: CHEM 105 or CHEM 103.

#### **NUTR 322 Nutrition through the Life Cycle (3)**

Examination of the nutritional requirements of pregnancy, growth, adulthood, and aging. Includes nutritional assessment and factors that affect food habits at various ages. Prerequisite: NUTR 222. (Offered Fall Semester only.)

#### **NUTR 331 Advanced Food Science and Technology (3)**

Examination of the U.S. food supply with emphasis on food product development and marketing, food composition, ingredient functions, food processing and preservation, genetically modified foods, and laws and regulations that control and protect the food supply. Prerequisites: 1) Either NUTR 110 or NUTR 222 and 2) NUTR 121. (Offered Spring Term only.)

#### **NUTR 341 Food Service (4)**

Examination of the standards, principles and techniques required to produce food in quantity including food purchasing, facility layout, equipment selection, quality control, service and distribution, and management. Three lectures and three hours of laboratory per week. Prerequisites: BUSA 120, NUTR 121. (Alternate years, offered Fall 2012.)

#### **NUTR 352 Community Nutrition (3)**

Study of the methods used to provide nutrition care to communities, with consideration given to community nutrition problems, current services, communicating with the public, grant writing, and program planning and evaluation. Prerequisite: NUTR 322. (Alternate years, offered Spring Term 2013.)

#### **NUTR 391 Nutrition and Dietetics Practicum (1-3)**

Supervised experience in a facility employing foods and nutrition professionals (e.g., hospital, nursing home, food business, community agency, etc.). Open to junior and senior nutrition majors. Prerequisites: NUTR 222 and Instructor's consent.

#### **NUTR 410 Nutrition Education and Counseling (3)**

Examination and application of current techniques for effective nutrition education and counseling. Students will develop and present a nutrition education lesson and provide individualized nutrition counseling under faculty supervision. Two hours of lecture and three hours of laboratory per week. Prerequisites: Senior Nutrition and Dietetics or Nutrition Science major, Meet department GPA criteria and NUTR 121, NUTR 322, BIOL 185, 186, COMM 105, PSYC 101, STAT 269 and CHEM 204. (Offered Fall Semester only.)

#### **NUTR 411 Medical Nutrition Therapy I (3)**

Study and application of the principles of the nutrition care process to medical nutrition. The course focuses on nutrition assessment and diagnosis, the design and implementation of nutrition care, and evaluation of client response and progress. It includes an introduction to pharmacology and pathophysiology, as well as enteral and parenteral nutrition support. Three lectures per week.

Prerequisites: Meet department GPA criteria and NUTR 121, NUTR 322, BIOL 185,186, STAT 269 and CHEM 204. (Alternate years, offered Fall 2013.)

#### **NUTR 412 Medical Nutrition Therapy II (3)**

Continuation of the study and application of the nutrition care process to medical nutrition. Students study the pathophysiology of and current nutrition therapies for a variety of illnesses and injuries, including cooking techniques and foods appropriate for preventing and treating specific medical conditions. Two lectures and three hours of laboratory per week. Prerequisite: NUTR 411. (Alternate years, offered Spring Term 2014.)

#### **NUTR 413 Foods for Medical Nutrition (1)**

Students learn menu planning, cooking techniques and foods appropriate for preventing and treating a variety of medical conditions. Three hours of lab per week. Prerequisites: NUTR 322; NUTR 121. (Alternate years, offered Spring Term 2014.)

#### **NUTR 422 Senior Research (1-3)**

Offered during the fall and spring semester for fourth year students. Students carry out research projects proposed in NUTR 491. Faculty and students will meet regularly during the semester for progress updates and to discuss other topics as needed. The project will typically culminate with the submission of a written research report and an oral presentation that is advertised campus wide. Prerequisites: Senior year standing, approval of the student's academic advisor and department chair, and completion of 1 credit of NUTR 491. Maximum of three credits per semester with the total not exceeding 5 credits. Cross listed with BIOL 422/CHEM 422.

#### **NUTR 425 Nutrient Metabolism and Research Methods I (4)**

Students study biochemistry of macronutrient metabolism and function, as well as body composition and energy expenditure. In addition, the course focuses on research methodology including advanced literature searching, research design, and interpretation of research data. Students select a research topic, write a literature review and design a research project which is completed in NUTR 426. Three hours of lecture and three hours of laboratory per week. Prerequisites: Meet department GPA criteria and NUTR 322, STAT 269, and CHEM 204 or CHEM 309 and CHEM 310. (Alternate years, offered Fall 2013.)

#### **NUTR 426 Nutrient Metabolism and Research Methods II (3)**

Students study the biochemistry of micronutrient metabolism and function as well as nutrigenomics. In addition, students complete the research project designed in NUTR 425, including a written research report and an oral presentation. Two hours of lecture and three hours of laboratory per week. Prerequisite: NUTR 425. (Alternate years, offered Spring Term 2014.)

#### **NUTR 427 Nutrition and Dietetics Practicum (1-3)**

Supervised experience in a facility employing foods and nutrition professionals (e.g. hospital, nursing home, food business, community agency, etc.). Open to junior and senior Nutrition students. Prerequisites: NUTR 222 and instructor's consent.

**NUTR 491 Independent Study (1- 3)** Junior and senior students with at least a B average may select a problem for independent investigation in a special area of foods and nutrition.

**NUTR 493 Senior Seminar in Nutrition, Food Service, and Dietetics (1)** Senior Seminar in Nutrition, Food Service, and Dietetics: Topics addressed include Christian perspectives, ethical concerns and social responsibility issues relating to nutrition, food service, and dietetics practice. Students explore career options and prepare for postgraduate education or employment. Prerequisite: Senior nutrition and dietetics, nutrition science, or food and nutrition services management major. (Offered Fall Semester only.)

**NUTR 497, 498 Major Honors I, II (2-3, 2-3)**

Completion of a research or service-learning project for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5, Major GPA of 3.8, NUTR 491, and departmental approval required for enrollment.

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## **P**

**PACS 201 Basic Conflict Mediation (3)**

This course provides instruction in such essential skills as empathetic-communication, active listening, productive questioning, managing group dynamics, consensus building, and collaborative problem solving. An understanding of the sources of conflict, coupled with knowledge of conflict styles, enhances the ability to resolve disputes and enables the conflict specialist to work in a variety of settings. This course also provides an overview of the theoretical and practical aspects of the mediation process. It involves learning a step-by-step process to conduct mediations and practice fundamental dispute resolution skills, such as listening, reframing, summarizing, problem-solving, and creating a safe, non-threatening environment.

**PACS 495 Senior Seminar in Peace and Conflict Studies (3)**

The capstone course for the PACS major is particularly important because it will enable students to integrate their inter-disciplinary study, their PACS studies, and their Christian faith. The opportunities and challenges of pursuing PACS as a vocation will be examined, and students will engage in independent research and writing, which explores a personal area of interest relevant to PACS.

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**PHED 101 Introduction to Wellness (2)**

An introduction to the key elements of wellness from a Christian perspective including active participation in a regular individual fitness program with particular emphasis on cardiovascular endurance, flexibility, and muscular strength. Other issues relating to wellness will also be addressed. Meets General Education Health and Physical Fitness requirement.

**PHED 102 Intercollegiate Sports (1)**

Meets General Education Health and Physical Fitness requirement.

**PHED 103 Adapted Physical Education (1)**

This course is specifically designed for students with a chronic illness or condition that prevents them from safely and/or successfully meeting the physical exercise/activity requirement. Requires medical documentation and consultation with Instructor. Meets General Education Health and Physical Fitness requirement.

**PHED 104 Swimming for the Non-Swimmer (1)**

Meets General Education Health and Physical Fitness requirement.

**PHED 105 Intermediate Swimming (1)**

[Requires beginning level skills.] This course is designed to focus on

the knowledge and skills necessary to 1) develop and demonstrate the mechanics necessary to swim the five basic strokes (front crawl, backstroke, elementary backstroke, breaststroke and sidestroke), 2) be safe in and around the water, recognizing potential hazardous conditions related to swimming and water recreation, and 3) to improve endurance and fitness and thereby develop a greater understanding of swimming as a component of a healthy lifestyle. Students considering intermediate swimming should possess the ability to perform the following beginning swimming skills: tread water, swim on the front and the back using any combination of alternating and simultaneous arm and leg actions, and swim underwater. Meets General Education Health and Physical Fitness requirement.

**PHED 106 Aquatic Aerobics (1)**

Emphasis on basic exercises one can perform safely in the pool. Meets General Education Health and Physical Fitness requirement.

**PHED 107 Beginning Racquetball (1)**

To provide the opportunities for the student to 1) describe and understand the relationship between care of the body and well-being as it pertains to racquetball, exercise the body and participate in ongoing physical activities, and develop habits of exercise and physical activity that could be maintained over a lifetime; 2) learn and understand the rules, strategy, terminology and scoring of the sport; 3) provide a positive personal and social experience through a leisure time activity that will benefit immediate physical outlet needs; and 4) learn to play with better intensity, execute shots with accuracy and consistency and maintain a high level of physical energy. Meets General Education Health and Physical Fitness requirement.

**PHED 108 Intermediate Racquetball (1)**

[Requires beginning level skills.] To provide the opportunities for the student to 1) describe and understand the relationship between care of the body and well-being as it pertains to racquetball, exercise the body and participate in ongoing physical activities, develop habits of exercise and physical activity that could be maintained over a lifetime; 2) learn and understand the rules, strategy, terminology, and scoring of the sport; 3) provide a positive personal and social experience through a leisure time activity that will benefit immediate physical outlet needs, and 4) learn to play with better intensity, execute shots with accuracy and consistency and maintain a high level of physical energy. Meets General Education Health and Physical Fitness requirement.

**PHED 109 Beginning Volleyball (1)**

This course is designed to provide students with opportunities to learn basic volleyball skills. There will be a focus on improving the skills of each student. Throughout the course there will be many opportunities for students to interact within drills and in competitive and noncompetitive situations. Meets General Education Health and Physical Fitness requirement.

**PHED 110 Intermediate Volleyball (1)**

[Requires beginning level skills.] This course is designed to help students further develop their volleyball skills. There will be a focus on improving the skills of each individual through competitive and noncompetitive experiences. Meets General Education Health and Physical Fitness requirement.

**PHED 111 Advanced Volleyball (1)**

[Requires intermediate level skills.] Advanced volleyball is designed to enhance already existing volleyball skills. There will be a focus on improving skills through competitive and noncompetitive experiences. Advanced offenses, defenses, and strategies will be introduced and developed throughout the class activities. Meets General Education Health and Physical Fitness requirement.

**PHED 112 Beginning Tennis (1)**

To provide the opportunities for the student to 1) describe and understand the relationship between care of the body and well-being as it pertains to tennis, exercise the relationship between care of the body and well-being as it pertains to tennis, exercise the body and participate in ongoing physical activities, and develop habits of exercise and physical activity that could be maintained over a lifetime; 2) learn and understand the rules, strategy, terminology, and scoring of the sport; 3) provide a positive personal and social experience through leisure time activity that will benefit immediate physical outlet needs, and 4) learn to play with better intensity, execute shots with accuracy and consistency, and maintain a high level of physical energy. Meets General Education Health and Physical Fitness requirement.

**PHED 113 Intermediate Tennis (1)**

[Requires beginning level skills.] Meets General Education Health and Physical Fitness requirement.

**PHED 114 Dance (1)**

Emphasis on developing habits of exercise and physical activity that could be maintained over a lifetime through square dance. The course will include skills, patterns, and terminology to successfully participate and enjoy a positive experience that is popular among people of all ages. Meets General Education Health and Physical Fitness requirement.

**PHED 115 Skiing and Snowboarding I (1)**

Thirty hours of skiing/snowboarding at the skill level of the individual participant. Regular instruction in stopping, turns, skiing/snowboarding under control, moguls, carving, safety, etc. with plenty of slope time to practice. Meets General Education Health and Physical Fitness requirement.

**PHED 116 Skiing and Snowboarding II (1)**

Thirty hours of skiing/snowboarding at the skill level of the individual participant. Advanced instruction in stopping, turns, skiing/snowboarding under control, moguls, carving, safety, etc. with plenty of slope time to practice. Meets General Education Health and Physical Fitness requirement. Prerequisite: PHED 115.

**PHED 117 Self Defense (1)**

This course will help develop basic self-defense skills. Students will gain skills using proper distance, timing, and use of body dynamics. This class is taught in a non-competitive environment. Meets General Education Health and Physical Fitness requirement.

**PHED 118 Creative and Expressive Movement (1)**

Focus on health-related physical fitness through continuous movement and individual monitoring of pace/levels of exertion. Cooperative activities include aerobic (moderate to vigorous) and anaerobic (e.g., body awareness, self-expression, synchronized movements and group challenges) within a stimulating, challenging

and enjoyable atmosphere. Meets General Education Health and Physical Fitness requirement.

**PHED 119 Aerobics (1)**

Students learn basic moves and safety for performing cardiovascular exercises in a group setting. Meets General Education Health and Physical Fitness requirement.

**PHED 120 Golf and Badminton (1)**

Students will have an opportunity to learn basic rules, scoring, safety, etiquette, skills, and strategies. Badminton will include power play and singles/doubles. Emphasis will be placed on developing basic skills to encourage participation in the activities to be physically active for a lifetime. Meets General Education Health and Physical Fitness requirement.

**PHED 121 Soccer and Softball (1)**

The course provides an introduction to an understanding and applying rules, strategies, position play, lead-up activities, safety and skills of the team sports as recreational activity. Meets General Education Health and Physical Fitness requirement.

**PHED 122 Flag Football and Basketball (1)**

Students will develop an appreciation for team activities that promote skill-related and health-related physical fitness. Emphasis will be placed on basic skills, modified and small group activities, strategies and offensive and defensive play. Meets General Education Health and Physical Fitness requirement.

**PHED 123 Strength Training (1)**

This course provides students with the instruction and guidance to design and implement a basic strength training program for life-long fitness. The course focuses on fundamentals of strength training including training principles, techniques, and safety issues. Development of and participation in an individual strength-training program is central to the course. Meets General Education Health and Physical Fitness requirement.

**PHED 124 Safety and R.A.D. Systems for Women (1)**

This course is designed to 1) develop and enhance in each female student, the options of self-defense, and offer practical avenues for them to respond to increasing acts of violence against them, and 2) provide a college level course for the women of Messiah College in which general safety, self-defense, and post encounter options are introduced and put into practice in a controlled environment. Rape Aggression Defense (R.A.D.) Basic class is taught by a R.A.D. certified instructor, following the R.A.D. curriculum. The basic course is the cornerstone of the R.A.D. system. Meets General Education Health and Physical Fitness requirement.

**PHED 126 Tennis and Volleyball (1)**

The course focuses on a progression of basic knowledge: skills and strategies that are needed to play and enjoy tennis and volleyball as lifetime fitness activities. Includes fundamental and developmental activities, space and court positioning, and basic principles for play. Meets General Education Health and Physical Fitness requirement.

**PHED 127 Aquatics (1)**

The course provides knowledge and introductory skills focusing on individual development of swimming strokes and safety. Additional content includes personal safety, aquatic conditioning, water games

and how to assist others in emergency situations. Meets General Education Health and Physical Fitness requirement.

**PHED 128 Developmental Gymnastics/Recreational & Rhythmical Activities (1)** Developmental gymnastics includes balance beam and tumbling, focusing on both elementary and lower level skills/stunts. Emphases placed on basic body positions and learning sequences, spotting and safety procedures. Recreational and rhythmical activities focuses on competitive, cooperative and inclusive games, and some basic dance forms (e.g., folk, line). Meets General Education Health and Physical Fitness requirement.

**PHED 129 Beginning Pilates (1)**

This course provides an introduction to the basic moves and techniques of Pilates. Emphasis will be placed on developing balance skills, core strength, and breath control. Students will develop basic Pilates skills, and variations thereof, that they can use through their lifetime to improve health. Meets General Education Health and Physical Fitness requirement.

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**PHIL 101 Problems of Philosophy (3)**

Both critical and constructive thinking is developed in dealing with the theory of human knowledge and the theory of reality. Meets General Education Philosophy requirement.

**PHIL 102 History of Philosophy (3)**

Study of Western philosophical systems from the sixth century B.C. to the present with particular attention to major historical periods and developments. Meets General Education Philosophy requirement.

**PHIL 220 Introduction to Logic (3)**

Introduction to basic systems of logic, including categorical logic, sentential logic, and predicate logic (and may include inductive logic and/or basic modal systems). Emphasizes the ability to translate between symbolic and natural languages and the ability to construct proofs. (Alternate years, offered 2014-2015.)

**PHIL 247 Ancient and Medieval Philosophy (3)**

A study of Western philosophy from its beginnings in the ancient Greek world through the Middle Ages, with an emphasis on the following philosophers: Plato, Aristotle, Augustine, and Aquinas. Prerequisite: PHIL 101 or 102. (Alternate years, offered 2014-2015.)

**PHIL 253 Modern Philosophy (3)**

A study of Western philosophy since the Middle Ages, with an emphasis on leading philosophers of the 17th and 18th Centuries such as Descartes, Locke, Hume, and Kant. Prerequisite: PHIL 101 or 102. (Alternate years, offered 2014-2015.)

**PHIL 310 Contemporary Continental Philosophy (3)**

An examination of key movements such as phenomenology, existentialism, hermeneutics, and postmodernism, with particular emphasis on the work of Husserl, Heidegger, Levinas, and Derrida. Prerequisite: PHIL 101 or 102.

**PHIL 318 Asian Philosophy (3)**

Investigation of the most important Asian philosophers and schools of philosophy. Prerequisite: PHIL 101 or 102. Meets General Education Non-Western Studies requirement. (Alternate years, offered 2014-2015.)

**PHIL 325 Moral Problems (3)**

The analysis and consideration of such problems in applied ethics as abortion, war, the authority of government, affirmative action, homosexuality, and hunger. Special consideration is given to the relationship of these problems to issues of moral theory. Prerequisite: IDCR 151. Meets General Education Ethics in the Modern World requirement. (Alternate years, offered 2013-2014.)

**PHIL 341 Epistemology and Metaphysics (3)**

The analytical study of central epistemological concepts such as knowledge, rationality, intuition, belief, and perception and of central metaphysical problems such as the mind/body problem, personal identity, freedom and determinism, and the relationship of reality to human cognition. There will be a special emphasis on issues of importance to Christian faith, such as the epistemology of religious belief, and on the relationship of epistemological issues to metaphysical issues. Prerequisite: PHIL 101 or 102. (Alternate years, offered 2014-2015.)

**PHIL 342 Aesthetics (3)**

An exploration of the history of aesthetic theory with particular focus on the philosophy of imagination in relation to Christian thought. Prerequisite: PHIL 101 or 102. (Alternate years, offered 2013-2014.)

**PHIL 345 Philosophy of Religion (3)**

Major issues in philosophy of religion, with special attention to the evidence for God's existence and the Christian faith, the problem of evil, faith and reason, alternatives to Christian belief, and philosophical analyses of key Christian doctrines such as the doctrine of Atonement, Incarnation, and Hell. Prerequisite: IDCR 151. Meets General Education World Views requirement. (Alternate years, offered 2013-2014.)

**PHIL 360 Topics in Philosophy (3)**

Selected topics in philosophy not currently included in course offerings such as philosophical problems, figures, schools of thought, or historical periods. May be repeated for additional credit as the topic/study changes. Prerequisite: PHIL 101 or 102.

**PHIL 362 Philosophy of Science (3)**

Investigation of the methods of science, its ability to gain knowledge of the world, its historical development and its relation to religion. Prerequisite: PHIL 101 or 102. (Alternate years, offered 2014-2015.)

**PHIL 382 Ethics (3)**

Constructive and analytical involvement in the questions of normative ethics and metaethics. Philosophical and religious resources are appropriated. Special consideration of the ethical relevance in contemporary society. Prerequisite: IDCR 151. Meets General Education Ethics in the Modern World requirement.

**PHIL 460 Philosophy Seminar (3)**

Research seminar on selected philosophical themes such as realism, relativism, virtue, justice, or rationality. The writing and class presentation of a major research paper is required. Open only to juniors and seniors. Prerequisite: Six credits PHIL 300-level or above.

**PHIL 491 Independent Study (1-3)**

Selected subjects pursued independently with frequent consultation with a faculty supervisor.

**PHIL 497, 498 Major Honors (3, 3)**

Independent research program for students who have a strong academic record (3.5 cumulative GPA) for a minimum of five previous semesters of college study. Departmental approval required for enrollment.

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**PHSC 102 Foundations of Physical Science (3)**

Selected topics in the physical sciences designed for Education majors. Two lectures and three hours of laboratory per week. Along with BIOL 106, PHSC 102 meets General Education Laboratory Science requirement for Education majors only.

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**PHYS 180 Physics Exploration (2)**

This physics laboratory course is designed to give students in the physics majors (or those interested in the majors) an overview of the field of physics via hands on exploration, and to increase awareness of career opportunities in the field. Required for first-year students in the Physics and Physics with Teaching Certification, and open to all students.

**PHYS 201 Introductory Physics I (4)**

Survey of classical mechanics, stressing basic concepts and problem solving. Topics include vectors, motion in one and two dimensions, gravitation, Newton's Laws, the conservation of energy and momentum, harmonic motion, and waves. Three lecture periods and three hours laboratory per week. Recommended for biology, chemistry, and health science majors. Meets General Education Laboratory Science requirement. Prerequisite (or corequisite): MATH 102, 108 or 111. (Offered Fall Semester only.)

**PHYS 202 Introductory Physics II (4)**

Survey of electricity and optics, stressing basic concepts and problem solving, culminating in an historical and conceptual treatment of relativity and modern physics. Three lecture periods and three hours of laboratory per week. Recommended for biology, chemistry, and health science majors. Meets General Education Laboratory Science requirement. Prerequisite: MATH 102, 108 or 111. (Offered Spring Term only.)

**PHYS 211 General Physics I (4)**

First of a two-semester calculus-based general physics sequence. Models static and dynamic mechanical phenomena by classical methods for basic analysis, prediction, and problem solving. Experiments provide practice in measurement, data analysis, and illustrations of physical principles. Vector analysis and standard SI units are utilized. Topics include kinematics, Newton's Laws, work and energy, momentum and impulse, and rotational kinematics and dynamics. Three lectures and three hours of laboratory per week. Required for engineering, mathematics, chemistry and physics majors. Recommended for computer science majors. Meets General Education Laboratory Science requirement. Prerequisite: a grade of C- or better in MATH 110 or 111. (Offered Spring Term only.)

**PHYS 212 General Physics II (4)** Second of a two-semester calculus-based general physics sequence. Builds on basics of classical mechanics and other methods introduced in PHYS 211. Emphasis on concepts, calculations, measurements, problem solving, and applications. Topics include mechanical oscillations and waves, electrostatics, electricity, and magnetism and light. Three lectures and three hours of laboratory per week. Required for engineering, mathematics, chemistry and physics majors. Recommended for

computer science majors. Meets General Education Laboratory Science requirement. Prerequisite: a grade of C- or better in MATH 110 or 111. (Offered Fall Semester only.)

**PHYS 251 Modern Physics (4)**

Topics in Modern Physics: special theory of relativity, quantization of charge and energy, wavelike properties of particles, Schrödinger Equations, spectra of the atoms, molecular structures and spectra, quantum theory of conductors, semiconductors, the Hall effect and nuclear and particle physics. Three lectures and three hours of laboratory per week. Prerequisite PHYS 212.

**PHYS 291 Independent Study (1-3)**

Independent study in physics under the direction of an instructor.

**PHYS 307 Physics Instruction (2)**

This course is a methods course in secondary physics curriculum and instruction. Areas of focus include current national and international curriculum standards and best-practices in secondary physics teaching. The course includes a significant practical component of evaluated mock lessons delivered by students, with peer and instructor feedback. (Offered Spring Term only.)

**PHYS 328 Mechanics (3)**

Topics include: Dynamics of particles and rigid bodies in one, two and three dimensions, collisions, central forces. This course is a development of classical mechanics beyond the introductory physics level. Lagrangians and Hamiltonians will also be discussed. Prerequisite: PHYS 211.

**PHYS 402 Quantum Mechanics (3)**

Topics include: Modern Quantum Mechanics, the formalism, time evolution of wave function, identical particles, harmonic oscillator, hydrogen atom, perturbation theory. Prerequisite: PHYS 251.

**PHYS 407 Professional Issues in Secondary Physics Education (1)**

This course is a seminar course emphasizing disciplinary content issues in secondary physics teaching. Classroom management techniques, assessment strategies, adaptations for exceptional learners, lab safety and instruction, and instructional technology will be discussed in the context of equipping students to participate in the professional community of physics teachers. (Offered Fall Semester only.)

**PHYS 494 Senior Physics Seminar (2)**

This is a capstone research course, in which students conduct research on a topic of their interest and write a scientific, journal-style report about their findings. Prerequisite: Senior status and PHYS 251.

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**POLI 113 American Government (3)**

An introduction to the structure and operation of the executive, legislative, and judicial branches of the federal government, with special attention to the impact of the electorate, parties, and interest groups on the federal policy-making process. Meets General Education Social Sciences requirement. Required of all Politics Majors.

**POLI 204 History of Political Thought (3)**

Considers the evolution of political ideas as reflected in the work of Western political philosophers from Plato to Marx. Required of all Politics Majors.



**POLI 212 International Politics (3)**

An introduction to contemporary international politics. Special attention is given to the nature of the nation-state system, globalization, economic and political development, and regional politics, including Europe and the Middle East. Required of all Politics Majors.

**POLI 213 Comparative Politics (3)**

An introduction to the basic ideas and structures of political life. Particular attention given to examining the dominant belief systems of modern political regimes. Among the institutions considered: parties, interest groups, elections, legislatures, and executives. Meets General Education Social Sciences requirement. Required of all Politics Majors.

**POLI 214 Constitutional Law: Governmental Powers and Constraints (3)**

By reading and analyzing Supreme Court opinions, students will become familiar with how the Court has answered questions regarding the powers of Congress, the President, and the federal judiciary, as well as constraints on those powers. In addition, significant attention will be given to the Court's changing understanding of the relationship between the national government and the states, and of the government's power to regulate economic activity.

**POLI 220 Parties and Elections (3)**

An examination of the role of American political parties and the nomination and electoral process at the national level. Special emphasis on the voting behavior of individuals and groups.

**POLI 222 Politics in Latin America (3)**

This course will examine the interdependent relations of various factors (political, social, historical, cultural, and economic) both internal and external to the political system in Latin American states. Students will develop an appreciation of the nature of cross-national/cultural analysis, as well as an understanding of the impact of global policies on Latin American states. The culmination of this course will result in the acquisition of analytical skills to explain patterns of political stability and political change within nation-states and regions of this area. Meets General Education Non-Western Studies requirement. (Alternate years, offered 2013-2014.)

**POLI 231 Politics in Film (3)**

This course will examine the ways in which films contribute to political understanding by reflecting political culture and structure. Political themes to be covered include: the historical and potential roles of the executive, legislative, and judicial branches; racial and gender inequality; and issues in civil liberties. Prerequisite: POLI 113 or by Instructor's consent.

**POLI 240 American Presidency (3)**

A study of the changing role of the president in the United States. Special emphasis given to the powers and limitations of the office, decision-making process, and the importance of personality.

**POLI 243 Political Research Methods (3)**

In this course students will learn how to investigate a political question, enabling them to: evaluate the process of research in political science; focus on research design; recognize the importance of reading comprehension and writing skills as prerequisites for good research; discuss ethical issues in research; acquire conceptual components of the research process (theories, hypotheses, etc.);

understand qualitative and quantitative methods of analysis and processing; develop computer-based training in quantitative analysis and interpretation of basic statistics. Required of all Politics Majors.

**POLI 310 American Political Thought (3)**

This course devotes significant attention to topics that relate directly to concept of pluralism including the relationship between religion and politics and how the legacy of racial oppression squares with the principles on which our country is founded. Topics include: the ideas articulated in the Declaration of Independence; the elements of Puritan thought; religion and the argument for American independence; the relationship between religion and politics; the framing of the Constitution; different views regarding the legitimacy of slavery under the Constitution; Abraham Lincoln's understanding of and commitment to the American Union; and, finally, Progressive views regarding the nature of good government. Meets General Education Pluralism requirement.

**POLI 315 United States Foreign Policy (3)**

An examination of U.S. foreign policy with special attention given to the Cold War and its aftermath. (Alternate years, offered 2013-2014.)

**POLI 316 Constitutional Law: Civil Liberties and Civil Rights (3)**

By reading and analyzing Supreme Court opinions, students will become familiar with the Court's historical willingness and unwillingness to protect individual liberties and rights from governmental infringement. Specific topics include: applying the Bill of Rights to the states; free exercise of religion; religious establishment; freedom of speech, assembly, and association; freedom of the press; the right to bear arms; the right to privacy; the rights of the criminally accused; and discrimination on the basis of race, gender, and sexual orientation. Meets Pluralism requirement.

**POLI 320 Ethnic and Racial Politics in America (3)**

A thematic approach to the study of ethnicity and race in American political life. Topics include the politics of immigration, partisanship and machine politics, public policy and race, and the Civil Rights movement. Prerequisite: IDCR 151. Meets General Education Ethics requirement. (Alternate years, offered 2013-2014.)

**POLI 323 Public Policy (3)**

Examines the planning, implementation, and evaluation of public policy with special attention given to public policy at the state and federal level. Specific public policy issues, including social, economic, and environmental topics, are discussed. Prerequisite: POLI 113. (Alternate years, offered 2014-2015.)

**POLI 325 Women, Family and Politics (3)**

This course will examine the role of women in politics and their contribution to public policy. Students will be exposed, in an interdisciplinary method, to the sociological and psychological development of women, the dynamic impact of culture and norms on this development, and the resulting way in which women contribute to the political process. Ultimately, the course will allow students to analyze the impact that various socialization factors (such as families), demographic factors (such as race, ethnicity and class) and gender stereotypes have on the development of women, as well as the importance of women's contributions to policymaking related to gender and family issues. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement.

**POLI 330 Terrorism (3)**

Investigates the theory and practice of terrorism as a means of political change. Also considers approaches to, as well as the moral basis of, counter-terrorism. Prerequisite: IDCR 151. Meets General Education Ethics requirement.

**POLI 332 Congress (3)**

A study of legislators, the legislative process, structures, and policy impact of the United States Senate and House of Representatives.

**POLI 334 Public Opinion and Political Socialization (3)**

This course focuses on the nature of public opinion and its role in the political process; myths and symbols in opinion formation; modern methods of opinion measurement (e.g., surveys, polls, samples); the nature and role of propaganda under democratic and totalitarian systems of government and the role of newspapers, radio, television, and other media of communication in opinion formation.

**POLI 342 Politics in Canada (3)**

An introduction to the institutions and processes of Canadian government. Particular attention given to the United States as a comparative point of reference. Topics include multiculturalism, constitutional reform, provincial-federal relations, national identity, the party system, the prime minister and the cabinet. (Alternate years, offered 2014-2015.)

**POLI 346 Russia after Communism (3)**

This course examines Russian political development since 1985. Particular emphasis is on post-communist politics. Students will learn that a comprehensive study of contemporary Russian politics requires combining an examination of economic development and political culture with an understanding of how Russia's political institutions have evolved, how they are intended to function, and how they actually relate to one another. Thus, by the end of the semester, students should appreciate how difficult it is to compartmentalize political, economic, social, cultural, and historical factors. Another important theme is Russia's interaction with the Western world. Meets General Education Non-Western requirement.

**POLI 348 Politics of the United Kingdom (3)**

Examines the institutional, intellectual, and sociological context of British politics. Topics considered include: political culture, party system, parliament, prime minister and cabinet, race and ethnicity, Britain and the European Union. (Alternate years, offered 2013-2014.)

**POLI 360 Special Topics in Politics (3)**

Selected topics related to a specific area of politics including American government and normative theory.

**POLI 362 Theories of International Relations (3)**

A survey of theoretical approaches to international relations, including realism, theories of conflict, integration, and decision making. Examines contending normative and empirical methodologies.

**POLI 370 Topics in International Relations (3)**

Selected topics related specific themes in international and comparative politics.

**POLI 391 Politics Practicum (1-3)** Practical experience under professional supervision, open to juniors and seniors.

**POLI 392 Pre-Law Practicum (1-3)**

Practical experience in a law firm under professional supervision. Open to juniors and seniors considering law school.

**POLI 491 Independent Study (1-3)** Independent study or research under the supervision of an instructor.

**POLI 494 Politics Seminar (3)**

Serves as the capstone course for politics majors. Stresses critical discussion of influential works in 20<sup>th</sup>-century political studies. Required of all politics majors.

**POLI 495 Internship in Political Research (6-9)**

Practical experience in politics and government obtained through placement in a state office or political organization.

**POLI 497, 498 Major Honors (3, 3)**

Independent research program for students who have strong academic records for a minimum of five previous semesters of collegiate study. Overall GPA of 3.5 and Department of Politics and International Relations faculty approval required for enrollment.

**PSYC 099 Writing for Psychology (1)**

Emphasis on the basic style, format, and process of writing in psychology as a discipline. This includes conducting a literature search, writing a literature review, and producing a scholarly paper.

**PSYC 101 Introduction to Psychology (3)**

Introduction to modern psychology including its major theorists and methodologies and an overview of biological, personality, learning, developmental, social, and abnormal psychology. Meets General Education Social Sciences requirement.

**PSYC 203 Educational Psychology (3)**

Study of theoretical concepts and principles necessary for understanding human thought and behavior in a wide variety of educational environments. Focus on variables related to teaching-learning processes: learning, memory, transfer, problem solving, motivation, growth and development, exceptionalities, instructional planning, assessment. Emphasis on research methodologies employed by educational psychologists and interpretation of empirical research findings. Meets General Education Social Sciences requirement. Cross-listed with EDUC 203.

**PSYC 204 Cognition (3)** Survey of research and theory in the study of human information processing. The course covers the acquisition, representation, and use of knowledge with emphasis on the processes of attention, memory, language, problem solving, and decision making. Prerequisite: PSYC 101.

**PSYC 209 Life Span Development (3)**

A developmental approach to the study of persons from conception to death. Attention is given to the physical, emotional, social, and cognitive development of the individual as well as to theoretical and methodological issues relevant to understanding different age groups. Applications are made to the contexts relevant to various stages of development. Recommended: EDUC/PSYC 203, HDFS 101, SOAN 101, or PSYC 101. Cross-listed with HDFS 209.

**PSYC 226 Social Psychology (3)**

Introduction to the theories, methods, findings, and problems encountered in the study of people as social beings. Content areas include the self, attitudes and social cognition, conformity and obedience to authority, stereotypes and prejudice, altruism, aggression and social conflict, and applications of social psychological concepts. Prerequisite: PSYC 101 or SOAN 101. Cross-listed with SOAN 226.

**PSYC 231 Psychology of Aging (3)**

Study focuses on the psychological stability and change experienced by older persons. Topics include sensation and perception, intellectual functioning and learning, psychomotor skills, personality, and psychopathology as related to older persons. Students develop a relationship with an Elder Mentor for the duration of the class. Course has a service-learning designation. Cross-listed with GERO 231.

**PSYC 241 Group Dynamics (3)**

Exploration of group process (including group structure and function, leadership, decision making, and problem solving) and group therapy (including intervention strategies). Learning methods will include both didactic and experiential components.

**PSYC 242 Community Psychology (3)** This course focuses on person-environment interactions and the ways society impacts individual and community functioning. Community Psychology attempts to address key social issues, including poverty, substance abuse, school failure, community development, delinquency, violence, and high risk behavior in a variety of settings, including clubs, churches, schools, families, agencies, and neighborhoods. Prerequisite: PSYC/HDFS/SOAN 101.

**PSYC 243 Positive Psychology (3)**

This course examines the scientific study of optimal human functioning. Students will learn what factors have been found to help people flourish and grow. Time will be spent helping students discover some of their own strengths and how they can be optimized. Prerequisite: PSYC/HDFS/SOAN 101.

**PSYC 244 Cross-Cultural Psychology (3)**

This course examines many of the common topics in psychology from an international, multicultural perspective. Students also learn what factors lead to differences in human characteristics across cultures. Prerequisite: PSYC/HDFS/SOAN 101.

**PSYC 245 Forensic Psychology (3)**

This course provides an understanding of the relationship between psychology and law by showing how psychological research and theory can inform the legal process. Some specific areas of study in forensic psychology include data gathering and operations (police work, investigation), legal proceedings (expert witnesses, competency and psychological assessment, jury selection), and institutionalization. Prerequisite: PSYC/HDFS/SOAN 101.

**PSYC 271 Statistical Methods in Psychology (3)**

This course provides a foundational background in the use and application of key statistical methods used in psychology. Students will learn to handle data and critically evaluate the appropriate statistical methods for presenting data within the field of psychology. The basic principles of probability, descriptive statistics,

inferential statistics, and the use of statistical software appropriate to psychology will be taught.

**PSYC 272 Introduction to Social Research (3)**

Introduction to human inquiry including the development of hypotheses and the role of theory in hypothesis development. A survey of research design, sampling, data collection and analysis strategies. Prerequisite: {PSYC 101, HDFS 101 or SOAN 101} and {PSYC 271 or STAT 269}. Cross-listed with HDFS 272.

**PSYC 310 Child Development (3)**

A developmental approach to the study of the individual from the prenatal period through late childhood. Attention given to the physical, emotional, social, and cognitive development of the child as well as theoretical and methodological issues related to child development. Applications made to the family, peers, church, and culture. Prerequisite (one of the following): HDFS 101, PSYC 101, PSYC/HDFS272, EDUC/PSYC 203, EDUC 212, or EDSP 207. Cross-listed with HDFS 310.

**PSYC 311 Adolescent Development (3)**

A developmental approach to the study of the adolescent. Attention given to the physical, emotional, social, and cognitive development of the adolescent as well as theoretical and methodological issues. Applications made to the family, peers, schools, the church, and the culture. Prerequisites: EDUC/PSYC 203, HDFS 101, PSYC 101, or PSYC/HDFS 272. Cross-listed with HDFS 311.

**PSYC 312 Adult Development (3)**

A developmental approach to the study of the early and middle adult years. Attention given to the interaction of psychological, social, and physiological aspects as well as theoretical and methodological issues related to adult development. Prerequisite: EDUC/PSYC 203, HDFS 101, PSYC 101, or PSYC/HDFS272. Cross-listed with HDFS 312.

**PSYC 319 Abnormal Psychology (3)**

Study of the biological and psychosocial factors related to the development of psychopathology. Focus on various mental health disorders, with emphasis on classification based on the Diagnostic and Statistical Manual of Mental Disorders. Prerequisites: PSYC 101 or HDFS 101 and sophomore status.

**PSYC 323 Counseling Theories (3)**

Study of some of the various theoretical approaches to counseling, including psychoanalysis, cognitive-behavioral therapies, person-centered therapy, Behavioral therapy, and Postmodern approaches. Prerequisite: PSYC 101 or HDFS 101 and sophomore status.

**PSYC 324 Personality (3)**

Systematic study of the structure, organization, and determination of personality including a survey of the major contemporary personality theories. Prerequisites: PSYC 101 or HDFS 101 and sophomore status.

**PSYC 342 Women and Men in American Society (3)**

Introduction to key topics related to gender such as identity formation, work, family, sexuality, violence, class stratification, and religious orientation. Racial and cultural issues will be treated as they affect understanding of gender. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement. Cross-listed with HDFS/SOAN 342.

**PSYC 350 Biological Basis of Behavior (3)**

The goal of this course is to study the relationship between the physiological and psychological bases of behavior. This course emphasizes the biological basis of nervous systems disorders and mental illnesses, the pharmacology of drug use and abuse and the neural circuitry of emotion. The course also examines the organization of the nervous system and the mechanisms of neuronal communication. Prerequisites: PSYC 101 and one of the following: BIOL 161, BIOL 185, or BIOL 258.

**PSYC 351 Sensation and Perception (3)**

The goal of this course is to provide a detailed examination of the theories and research pertaining to various sensory and perceptual processes with an emphasis on vision. Students will participate in simulated research activities to explore and illustrate key principles and ideas. Prerequisites: PSYC 101 and one of the following: BIOL 161, BIOL 185, or BIOL 258.

**PSYC 365 Drug and Alcohol Addiction (3)**

The goal of this course is to provide an understanding of substance abuse and its impact on individuals, families and communities. This course will emphasize the biological basis for addiction and the pharmacological effects of drugs and alcohol. The course will also examine the motivations, social implications and legal ramifications of drug use, as well as the methods and effectiveness of drug treatment and prevention.

**PSYC 382 Topics in Psychology (3)**

Selected topics in psychology not currently included in course offerings. Possible topics may include cross-cultural psychology, psychology of religion, advanced experimental research, and moral development. May be repeated for additional credit as the topic/study changes. Prerequisite: Three credits in psychology or Instructor's consent.

**PSYC 391 Psychology Practicum (1-3)**

Field experience for junior and senior psychology majors wishing to clarify vocational goals. Students work under supervision of a professional for a minimum of 40 hours per credit. Ten additional hours of reading and other integrated activities per credit required. Prerequisites: Instructor's consent, Department Chair, and Internship Center.

**PSYC 408 Experimental Psychology (3)**

In-depth study of human behavior, the formulation of research problems and hypotheses, research design, statistical inference, decision making, and writing research reports. The experimental research process will be experienced by way of a semester-long experimental project of the student's choosing. Prerequisites: PSYC 099, nine credits in psychology, PSYC/HDFS 272, and STAT 269 or PSYC 271.

**PSYC 409 Psychological Testing (3)**

An overview of the use of psychological tests, including intelligence, achievement, and personality testing in the assessment of individuals. This course provides practice in interpreting psychological test data from statistical and clinical perspectives, as well as technical writing skills. Emphasis on ethical issues related to psychological testing. Prerequisites: [PSYC 099 or BIOL 160], six credits in psychology and PSYC 271.

**PSYC 422 Psychology Research Experience (1-3)**

Offered during the fall and spring semester for students who have taken PSYC 408 and show a strong interest in and capacity for research. Students will carry out a research program under the direction of a faculty mentor. The semester culminates with the submission of a written thesis and an oral presentation to a departmental gathering that is advertised campus wide. This course does not fulfill departmental honors requirements. Students should register for PSYC 497/498 if they wish to complete a major honors project. Prerequisites: Completion of PSYC 408, junior or senior status, instructor's consent. A student may earn a maximum of three credits per semester with the total not exceeding five credits.

**PSYC 423 Counseling Skills (3)**

Introduction to and practice of basic counseling skills to create and build the therapeutic relationship with attention to affective, cognitive, behavioral, and faith components of the change process. This course is didactic, practical and experiential with emphasis on skill development and application of counseling theories. Emphasis on self-awareness, as well as cultural and ethical issues related to counseling. Prerequisite: PSYC 323.

**PSYC 441 History and Systems of Psychology (3)**

Study of the historical development of psychology by examining the foundations of the profession and the changes, within and outside psychology, that have influenced the current theories that dominate the field. Prerequisites: PSYC 099, PSYC 101 and junior or senior status.

**PSYC 491 Independent Study (1-3)**

Junior and senior students with at least a 3.0 GPA in their major may select a problem for independent investigation in a special area of psychology. Prerequisites: Instructor's and Department's consent.

**PSYC 494 Psychology Seminar (3)**

Discussion and analysis of the relationship between psychology and the Christian faith. Considers how Christian perspectives inform, critique, and further a professional orientation in psychology. Prerequisite: Senior status.

**PSYC 497, 498 Major Honors (3, 3)**

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5 and departmental approval required for enrollment.

## R

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**RELI 205 Religions of the World (3)**

An introduction to the world's major religious traditions, including primal religions, Hinduism, Buddhism, Judaism, Christianity, and Islam. In addition to examining historical and current beliefs and practices of these traditions, students will be introduced to the study of religion and Christian theological resources for reflecting on religious diversity. Meets General Education Religion requirement.

**RELI 206 Religions of the World for Majors (3)**

An introduction to the world's major religious traditions, including primal religions, Hinduism, Buddhism, Judaism, Christianity, and Islam. In addition to examining historical and current beliefs and practices of these traditions, students will be introduced to the study of religious and Christian theological resources for reflecting on

religious diversity. Alternate to RELI 205, designed specifically for Biblical and Religious Studies majors. Meets General Education Religion requirement.

#### **RELI 228 Judaism (3)**

A survey of Judaism as a religion, culture, and way of life. This course will examine foundational beliefs and practices within their historical and current contexts and will also discuss the rich diversity within Judaism. It will reflect on the millennia of Jewish experience within surrounding cultures, the role of the modern state of Israel in that experience, and Jewish-Christian relations past and present. Meets General Education Religion requirement.

#### **RELI 229 Islam (3)**

A survey of Islam as a religion, way of life, and civilization. This course will examine foundational beliefs and practices within their historical and current contexts and will also discuss the rich diversity within Islam. It will highlight the role of Islam in both local and global affairs, including perspectives on Muslim-Christian relations. Meets General Education Religion requirement.

#### **RELI 321 Christianity in Latin America (3)**

Historical overview and contemporary survey of Christianity in Latin America. Attention will be given to the social history of the churches and to developments in theology. The Catholic Church will provide the major focus, but Protestant developments (especially Pentecostalism) will be considered. Meets General Education Non-Western Studies requirement.

#### **RELI 329 Christianity in Africa (3)**

Historical overview and contemporary survey of Christianity in Africa (and the African Diaspora). Attention will be given both to the social history of the churches and to developments in theology. A brief introduction to African traditional religions and Islam will also be included. Meets General Education Non-Western Studies requirement. Course fee - \$10.

#### **RELI 332 Christianity in Asia (3)**

Historical overview and contemporary survey of Christianity in Asia. Attention will be given both to early developments in the Middle East and Persia and to later developments in China, India, and elsewhere. Both the social history of the churches and theology will be considered. Meets General Education Non-Western Studies requirement.

#### **RELI 333 Religions of India (3)**

The history and development of the major Vedic traditions of the Indian subcontinent as well as smaller religious communities such as Jains and Sikhs. Special attention is drawn to the impact of historical religion on modern India. Meets General Education Non-Western Studies requirement.

#### **RELI 334 Religions of China and Japan (3)**

Study of the history and development of the major religions of China, Tibet, and Japan. Emphasis is placed on the distinction between religions indigenous to these areas and those which were "imported." Analysis of the interaction between these two types of religions directs our attention to the influence of culture on religion and religion on culture. Meets General Education Non-Western Studies requirement.

#### **RELI 335 Gender and Christianity (3)**

Approaches Christianity from a perspective that incorporates insights relating to gender studies in various disciplines, including theology, Bible, sociology, and history. Prerequisite: THEO 205 or 238.

#### **RELI 342 Religious Pluralism in America (3)**

Examines issues related to religious pluralism in the United States, both past and present. Topics to be considered include the breadth of religious diversity, the expanding role of various forms of spirituality in contemporary America, the notion that America is a Christian nation, and the ideals and limits of religious freedom as a legal construct and social values. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement.

**RELI 344 History of Christianity (3)** Survey of Christianity from the time of Jesus to the present. Major developments, important turning points, and influential individuals will be highlighted. Differences and similarities between major Christian traditions (Protestant, Catholic, Orthodox, etc.) and denominational differences within Protestantism will be explored. Prerequisites: THEO 205, THEO 238, or another Christian Beliefs course.

#### **RELI 355 Christianity in North America (3)**

Historical overview and contemporary survey of Christianity in North America. Attention will be given to the theological and social history of the churches, and will also examine the roles of race, gender, ethnicity, and politics in North American Christianity. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement.

#### **RELI 366 Topics in Religion**

Study of a particular theme or topic pertaining to world religions, world Christianity, or the study of religion. Prerequisite: RELI 205 or RELI 206.

#### **RELI 491 Independent Study (1-3)**

Selected topics pursued independently with frequent consultation with a faculty supervisor.

#### **RELI 497, 498 Major Honors (3, 3)**

Independent research program for students who have a strong academic record (3.5 cumulative GPA) for a minimum of five previous semesters of college study. Department approval required for enrollment.

## **S**

#### **SERV 231 Foundations of Service, Mission, Social Change I (3)**

This course is a seminar dedicated to unpacking Western constructs of service, missions, and social change using multidisciplinary perspectives from critical theory, economics, theology, missions, and adult education. Topics include short-term missions, cross-cultural relationships, racism, Christian ministry, grant writing, and approaches to ideology critique. Students are required to do a 6-8 weeks service project through an approved mission and/or service agency during the summer and participate in SERV 232, Foundations of Service, Mission, and Social Change II (1), the following fall. Financial aid assistance for lost summer income and direct expenses is available as part of a major learning project to write a research based grant for student's proposed service project.

**SERV 232 Foundations of Service, Mission, Social Change II (1)**

As a continuation of SERV 231, this course focuses on reflection and analysis of the summer service-learning experiences. It is typically delivered over two weekend retreats in the fall. Pass/fail grade only.

**SERV 235 Harrisburg Service Learning (1)**

This service-learning cross-cultural seminar uses Harrisburg as both text and context in which to examine complex urban realities. Through community partnership, students will learn about urban life as they navigate and explore urban multi-cultural realities. Students will take a macro view of urban dynamics through a place-based exploration of Harrisburg as well as a micro view of urban dynamics through personal civic engagement.

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**SOAN 101 Introduction to Sociology (3)**

The study of humans in their social environment, with the goal of accumulating fundamental knowledge about human behavior, the structure of society, and social phenomena. Included is an introduction to sociological research methods and logic of inquiry. Some sections include a community service-learning option. Meets General Education Social Sciences requirement.

**SOAN 212 Cultural Anthropology (3)**

Holistic, comparative approach to the study of humankind that draws on a variety of disciplines such as archeology, linguistics, and ethnology to understand the nature of culture. Topics include cultural diversity and adaptive strategies, language, personality, marriage and kinship, religious beliefs and rituals, politics, economics, art, types of groups, social change, and issues of culture contact and cultural survival. Meets General Education Non-Western Studies requirement.

**SOAN 221 Native American Cultures (3)**

Focus on indigenous peoples of the Americas, primarily those of North America; a study of diversity within Native American cultures and points of similarity; emphasis on worldviews and the central place of spirituality; attention to the richness of indigenous cultures, and the dialectical relationship with socio-economic-historical contexts; emphasis on culture decimation and resilience, and the role of revitalization movements; focus on contemporary Native American cultures manifested in primary source materials. Meets General Education Non-Western Studies requirement.

**SOAN 226 Social Psychology (3)**

Study of individuals in relation to group and social influences. Emphasis on social change, social norms, conformity, attitudes, propaganda, and public opinion. Cross-listed with PSYC 226. Prerequisite: PSYC 101 or SOAN 101.

**SOAN 232 Sociology of Aging (3)**

Comprehensive introduction to the field of social gerontology. Special emphasis is given to the aged in the context of how older adults both affect and are affected by our society. Includes study of demography, cultural values, diversity of aging experiences, friendship and family relationships, work and retirement, living arrangements, political activity and social programs. Students engage in Elder Service Partner Program for the duration of the class. Course has a service-learning designation. Cross-listed with GERO 232.

**SOAN 271 Quantitative Research Methods and Statistics (3)**

A basic introduction to quantitative methods used to answer sociological questions with empirical data. Students will be introduced to topics such as the philosophy of research, research design, and hypothesis development. They will practice sampling, data collection, survey construction and will learn to evaluate research done by others. Major emphasis will be given to learning statistics most commonly used in social research including learning to use SPSS for data analysis. Students will complete a significant research project. Prerequisite: SOAN 101, SOAN 212, CRIJ 101 or Instructor's consent.

**SOAN 281 Qualitative Research Methods (3)**

An introduction to qualitative research methods as used by anthropologists and sociologists. Students will learn techniques that involve observation and data collection in a variety of field settings. Students will be introduced to and practice methods including participant observation, content analysis, in-depth interviewing, focus groups and case studies. Prerequisite: SOAN 101, SOAN 212, CRIJ 101, or Instructor's consent.

**SOAN 305 Harrisburg Neighborhoods (3)**

An experientially based introduction to city life, with special emphasis on neighborhood and other local political and social organization. Students will work on team-building and personal spiritual formation while exploring possibilities for personal roles in urban settings. Most of the learning involves ethnographic research projects in Harrisburg. Meets General Education Social Sciences requirement.

**SOAN 315 Urban Sociology (3)**

Survey of the spread of global urbanization from pre-industrial times until today. Emphasis placed on understanding urban life in different cultures and societies, with analysis of urban problems and possibilities in a broad range of countries. Attention will be given to the role of the church in shaping urban cultures and vice versa. Meets General Education Pluralism requirement.

**SOAN 331 Sociocultural Theory (3)**

An introduction to the history of sociocultural theories in sociology and anthropology. The course will cover both classical and contemporary theory. We will look at a number of the great classical theorists and the development of social theory through the present. Students will be introduced to important concepts in sociology and anthropology that are rooted in the work of various theorists and movements. In addition, students will be encouraged to think about the connections between social theory and world view. Prerequisite: SOAN 101 or SOAN 212.

**SOAN 334 Population and Environmental Issues (3)**

An introduction to the issues, both national and global, that relate to population trends, policies, and the environment. Students should leave this course with a basic understanding of demographic methods and techniques; familiarization with the three components of population studies: fertility, mortality and migration; a general knowledge of population policy issues, and a heightened awareness of the interactions between the environment and human society. Emphasis will be placed on the Christian perspective of population and environmental issues as well as the role of the church in population and environmental solutions. Meets General Education Science, Technology, and the World requirement.

**SOAN 335 Social Conflict, Justice, and Peacemaking (3)**

A study of social conflict and strategies for preventing and resolving destructive conflicts. Particular attention will be given to ethical and moral perspectives on justice, conflict and conflict resolution. The course will draw on literature and perspectives from sociology, philosophical and theological ethics, and peace and conflict studies. The course will include case studies and “hands-on” exercises to develop skills for resolving personal and group conflict. Prerequisite: IDCR 151. Meets General Education Ethics in the Modern World requirement.

**SOAN 341 Religion and Society (3)**

Analysis of religion as a social phenomenon in diverse societies and time contexts. Theories of the origin, nature, and functions of religion, including classic and contemporary approaches of its study; some considerations of the nature of socio-religious groups in the United States. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement.

**SOAN 342 Women and Men in American Society (3)**

Introduction to key topics related to gender such as identity formation, work, family, sexuality, violence, class stratification, and religious orientation. Racial and cultural issues will be treated as they affect understanding of gender. Prerequisite: IDCR 151. Cross-listed with HDFS 342/PSYC 342. Meets General Education Pluralism in Contemporary Society requirement.

**SOAN 356 Social Inequality (3)**

An examination of the origins and structure of social inequality in contemporary society with a focus on systems of economic, gender, racial, and ethnic inequality. Students will be introduced to classical and contemporary theories of inequality and will examine the roles that both culture and social institutions play in perpetuating inequality in the United States and globally. In addition, students will be introduced to historical and contemporary movements to address inequality and promote social justice. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement.

**SOAN 381 Topics in Non-Western Cultures (3)**

A topics course focusing on one area of the world. The course provides a survey of the cultural dimensions of the target area including attention to social, economic, political, aesthetic, and religious characteristics as well as the distinctive patterns of everyday life. Interactions among the focal cultures and other peoples will be explored in order to understand the historical factors in shaping a particular part of the world. May be repeated for additional credit as the topic/study changes. Meets General Education Non-Western requirement.

**SOAN 382 Topics in Sociology and Anthropology (3)**

Selected topics in anthropology not currently included in course offerings. Possible topics may include the study of ethnographies on a variety of cultures, urban anthropology, anthropology of religion, comparative family studies, and others. May be repeated for credit. Prerequisite: Three credits in anthropology or Instructor's consent.

**SOAN 384 Families in America (3)**

A sociocultural study of family/household variations in the Americas; special emphasis on the cultural and ethnic diversity and the adaptability of family/household forms to changing environmental contexts; historical and cross-cultural perspectives.

Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement. Cross-listed with HDFS 384.

**SOAN 391 Sociology and Anthropology Practicum (1-3)**

Field experience for junior and senior sociology majors wishing to clarify vocational goals. Students work under professional supervision for a minimum of 40 hours per credit. Ten additional hours of reading and other integrative activities per credit required. Prerequisite: Instructor's consent, Department Chair, and Career Center for Vocation and Development.

**SOAN 442 Senior Thesis (3)**

Senior students in the Sociology/Anthropology major complete a research-based thesis that synthesizes method, theory, and a topic from the major. This major capstone course includes integration of Christian perspectives with the philosophical and ethical issues of sociology and anthropology. Students will articulate how faith connects to potential career and vocational options. Offered Fall Term. Prerequisites: SOAN 271 or SOAN 281, and SOAN 331.

**SOAN 491 Independent Study (1-3)**

Junior and senior students with at least a 3.0 GPA in their major may select a problem for independent investigation in a special area of sociology. Prerequisites: Instructor's consent and Department Chair.

**SOAN 497, 498 Major Honors (3, 3)**

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5 and departmental approval required for enrollment.

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**SOWK 120 Introduction to Social Work (3)**

This course explores the history and values of Social Work as a profession and social welfare as an institution, both of which have grown from our common human needs and social problems in modern, industrial society. The course requires discussion of different practice areas of social work, such as mental health, child welfare, poverty, aging and education, and begins to help students develop an understanding of service delivery systems through discussion of values, ethics, and fields of practice. A philosophical, theoretical, and historical framework for Social Work and social welfare will be developed focusing on populations at risk and the promotion of social and economic justice. Course has a 16-hour volunteer experience within a social service type agency requirement. Meets General Education Social Sciences requirement.

**SOWK 221 Human Behavior in the Social Environment (3)**

This course provides the student with a framework for examining the person as a bio-psycho-social-spiritual-cultural being and for studying the processes by which human development occurs throughout the life cycle. There will be an exploration of the dynamic interrelationships between biological, psychological, spiritual, and environmental factors that come into play when assessing individuals within a social framework. Content will utilize current research and empirically based theories to focus on the interactions of individuals, groups, society, and economic systems. Course has a 16-hour volunteer experience within a social service type agency requirement.

**SOWK 250 Social Work Practice with Individuals (3)**

This is the first course offered in the practice series and is designed to introduce students to the philosophy and characteristics of helping relationships within the generalist framework in Social Work. It introduces basic relationship building, communication, social work principles and values, critical thinking and problem solving skills for use with any client system (individual, family, group, organization, community), but has a primary focus on working with individuals within a social context. A one-day per week practicum experience (SOWK 251) runs concurrent with course work and offers an opportunity for students to begin understanding, evaluating, and assessing practice. Limited to Social Work majors or Instructor's consent. Prerequisites: SOWK 120 and SOWK 221.

**SOWK 251 Field Experience: Social Work Practice with**

**Individuals (1)** A one-day per week practicum experience runs concurrent with course work and offers an opportunity for students to begin understanding, evaluating, and assessing practice. Limited to Social Work majors or Instructor's consent. Prerequisites: SOWK 120 and SOWK 221. Corequisite: Field Experience: must be taken with SOWK 250.

**SOWK 356 Engaging Diversity and Inequality (3)**

This course will provide students with an understanding of the social and historical contexts and the mechanisms which perpetuate prejudice, discrimination, and inequality in the United States and globally. This course prepares students to contemplate issues of advocacy in efforts to promote human rights, social justice, and economic justice with individuals, social systems, and structures. Topics will include race, gender, class, culture, religion, disabilities, sexual orientation, and other areas of marginalization. Prerequisite: IDCR 151. Meets General Education Pluralism requirement.

**SOWK 360 Social Work Practice with Families (3)**

This course is the second offered in the practice series and will begin to develop specific helping skills for generalist Social Work practice. Topics will include the problem-solving model, and will develop interviewing, assessment, treatment planning and evaluation skills. Family developmental issues will be addressed. A primary focus of this course will be the development of a knowledge base and the skills necessary to provide Social Work intervention with families at risk. A one-day per week practicum experience (SOWK 361) runs concurrent with course work. Limited to Social Work majors or Instructor's consent. Prerequisite: SOWK 250.

**SOWK 361 Field Experience: Social Work Practice with Families**

**(1)** A one-day per week practicum experience runs concurrent with course work. Limited to Social Work majors or Instructor's consent. Prerequisite: SOWK 250. Corequisite: Field Experience must be taken with SOWK 360.

**SOWK 372 Social Work Practice with Groups (4)**

This is the third class in a series of practice courses in Social Work. The course examines the dynamics of the small group. Various theoretical conceptualizations of the role of the Social Worker in the group are discussed. Concepts such as group dynamics, norms, and roles are examined. Group leadership skills for planning, facilitating, and evaluating groups will be developed and practiced. Content will include identifying and implementing group related empirically based interventions and services designed to achieve client and community goals. There is also a focus on the interplay

between Social Work and community groups. Limited to Social Work majors or Instructor's consent. Prerequisite: SOWK 360.

**SOWK 382 Topics in Social Work (3)**

Selected topics in social work not extensively covered in other required courses that are designed to assist students in competency development across treatment areas.

**SOWK 385 Introduction to Research in Social Work (3)**

This course explores the philosophy, concepts, principles, and methods of empirical research in Social Work. Characteristic stages and formats of social research are reviewed, with the primary aim of developing beginning competence in the critical assessment of published research and the use of research methods in the field of Social Work. Emphasis will be on the development of an understanding of a scientific, analytic, and ethical approach to building knowledge for practice. Both quantitative and qualitative methods will be presented. There will also be a focus on developing a student's ability to use research methods for the purposes of evaluation in Social Work practice, programs, and policies. This course should be taken in the junior or senior year. Prerequisite: STAT 269.

**SOWK 420 Social Welfare Policy and Social Change (3)**

This course will introduce students to the arena of social policy and to the sociopolitical environment in which policy takes place. Students will develop a capacity to examine and critically analyze social welfare policy within historical and societal contexts. Selected areas of policy will be examined using theoretical and analytical principles. The course will focus on the implementation of advocacy strategies to combat discrimination, to promote social and economic justice, and will empower students to be agents of social change in the United States and abroad.

**SOWK 475 Social Work Practice with Communities and Organizations (3)**

This course is the fourth class offered in the practice series and an integral part of generalist social work practice. It is designed to develop the skills and abilities of students to practice macro social work. The primary focus is on the interrelationships between the environment, agency structures and general service delivery systems. Students develop specific community organizing and networking skills. A strong component of this course focuses on program evaluation, community assessment and intervention. Limited to Social Work Majors or Instructor's consent. Prerequisite: SOWK 360. Corequisite: SOWK 476.

**SOWK 476 Field Experience: Social Work Practice with Communities and Organizations (1)**

This is the fourth field course offered in the practice series and is designed to introduce students to the philosophy and characteristics of applied macro practice within the generalist framework in Social Work. This 1 credit practicum experience offers an opportunity for students to begin developing, implementing and assessing macro social work practice within community and organizational contexts. Limited to Social Work majors. Corequisite: SOWK 475.

**SOWK 484 Preparation for Field Practice (1)**

This course is designed to prepare students for entering their senior year field practice experience. Student and agency expectations will be discussed regarding objectives, procedures, roles and responsibilities as well as relevant practice issues such as record



keeping, stress management, and use of supervision in practice. Practical information regarding agency placements will be reviewed. Final coordination and student interviews with prospective placement will occur during this course. (Offered J-Term of senior year only.) Prerequisites: Completion of all degree requirements except SOWK 485 and SOWK 490.

#### **SOWK 485 Seminar in Social Work Practice (3)**

This course focuses on the knowledge, principles and skills of social work services. Emphasis is placed on generalist social work practice and utilizing a strength perspective in service delivery. Focus will be on the integration of models of service delivery with different client systems. Course will incorporate the values of the profession and analyze ethical dilemmas and the ways which they affect practice, services and clients. (Offered Spring Semester of Senior year only.) Prerequisites: Completion of all degree requirements. Runs concurrently with SOWK 490.

#### **SOWK 490 Field Practice in Social Work (12)**

This course provides specific Social Work service delivery in selected social welfare and related agencies. Students will receive a minimum of four hundred hours of practice experience. Opportunities will be provided to connect social work theory with practice and to develop social work skills with various client systems within an agency context utilizing theory based practice knowledge. Prerequisites: Completion of all degree requirements. Runs concurrently with SOWK 485.

#### **SOWK 491 Independent Study (1-3)**

Junior and senior students with at least a 3.0 GPA in their major may select a problem for independent investigation in a special area of Social Work. Prerequisite: Instructor's consent and Department Chair.

#### **SOWK 497, 498 Major Honors (3, 3)**

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5 and departmental approval required for enrollment.

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#### **SPAN 101, 102 Fundamentals of Spanish I, II (3, 3)**

Intensive study of the fundamentals of Spanish grammar within a communicative approach to language learning. Introduction to Hispanic culture. Meets General Education Languages and Cultures requirement.

#### **SPAN 201 Intermediate Spanish (3)**

Continuation of grammar principles with practical application in conversation. Introduction to composition through selected cultural and literary readings. Prerequisite: SPAN 102 or the equivalent. Meets General Education Languages and Cultures requirement.

#### **SPAN 206 Spanish Conversation and Composition (3)**

Advanced practice in oral and written Spanish based on everyday situations. Study of Hispanic culture through selected readings. Prerequisite: SPAN 201 or the equivalent.

#### **SPAN 211 Spanish Theatre Production (3)**

Students in this experiential course form part of an ensemble that will produce a short Spanish language play. Prerequisite: SPAN 206 or high intermediate proficiency. Participation by audition.

#### **SPAN 221 Business Spanish (3)**

Introduction to the Spanish of commerce and international business as well as the art of negotiation in the Spanish-speaking world. Emphasis on oral and written communication, including basic commercial practices, terminology, and documents. Prerequisite: SPAN 206 or the equivalent.

#### **SPAN 301 Topics in Latin American Literature (3)**

Selected literary works from contemporary authors and genres. Prerequisite SPAN 206 or the equivalent. Meets General Education Literature requirement.

#### **SPAN 302 Culture and Identity in Latin America (3)**

Survey of Spanish American culture and civilization from pre-Columbian civilizations to the present. Prerequisite: SPAN 206 or the equivalent. Meets General Education Non-Western Studies requirement.

#### **SPAN 305 Latin American Plays of Protest (3)**

Contemporary drama that addresses issues of social justice as well as sociopolitical tensions and how they affect the lives of ordinary people of multiple Latin American nations. Prerequisite: SPAN 206 or the equivalent. Meets General Education Non-Western requirement.

#### **SPAN 306 Contemporary Mexico (3)**

An exploration of Mexican society and culture through the examination of topics such as social class, education, urbanization, religious faith and expression, indigenous and national identity, the family, and economic development. Some attention will also be given to U.S.-Mexican relations and border issues. Prerequisite: SPAN 206 or the equivalent.

#### **SPAN 311 Topics in Spanish Peninsular Literature (3)**

A formal and cultural analysis of selected literary movements, authors, and themes of Spanish Peninsular literature. Development of a critical and analytical capacity and sensitivity toward literary language through the reading of a selection of poetic, dramatic, or narrative works. Prerequisite: SPAN 206 or the equivalent. Meets General Education Literature requirement.

#### **SPAN 312 Topics in Spanish Peninsular Culture (3)**

A study of various topics in Spanish culture that shaped or represented national, regional, and European identities in Spain. Topics may include the political, religious, literary, and artistic expression in Spain during the Arab occupation, the reconquest and unification, the colonization of the Americas, the Habsburg and Bourbon dynasties, the crisis of 1898, the dictatorship of Primo de Rivera, the Civil War, the Franco regime, and post-Franco Spain. Prerequisite: SPAN 206 or the equivalent.

#### **SPAN 314 The Counter Reformation and the Spanish Baroque (3)**

The artistic, political, and religious expression of the Spanish Baroque. Selected works of Góngora, Quevedo, Calderón, the Spanish mystics, including Santa Teresa de Jesús and San Juan de la Cruz, and painters such as Murillo, Velázquez, Zurbarán and others. The decline of the Habsburgs, the Council of Trent, and the role of the Catholic Church in Spanish society of the Baroque period. Meets General Education Literature requirement.

#### **SPAN 320 Spanish Linguistics (3)**

A linguistic study of Spanish, to include its morphology, syntax, and

contemporary dialectal variations. Concepts from general and descriptive linguistics will be introduced to allow exploration of the subject matter in Spanish.

**SPAN 322 Applied Phonetics (3)**

An examination of the Spanish articulatory system including an introduction of pertinent theoretical concepts in phonetics and phonology and the application of these concepts in various exercises of written transcription and oral production. Class discussion may also address issues related to regional variation and Hispanic dialectology. Prerequisite: SPAN 206 or the equivalent.

**SPAN 324 Contrastive Linguistics (3)**

A comparison of English and Spanish, with an emphasis on contrasting both languages at the levels of morphology, syntax, and semantics as well as developing the skills necessary to compare (and contrast) the native language with a foreign language and the ability to use metalanguage to account for the similarities and differences. Prerequisite: SPAN 206 or the equivalent.

**SPAN 331 Trans-Atlantic Literature (3)**

A study of the role that the written word played in building a transatlantic literary culture that linked the Spanish peninsula to the American colonies: the ways in which Spain shaped the literature of its colonies, and how the discovery shaped Spanish readers' understandings of the world and their place in it. Beginning with travel accounts and letters from America, students will explore the ways in which these reports depict and construct the image of the American other, the African slave, and the Spanish colonizer—particularly the role of intellectuals in the development of a circum-Atlantic identity. Meets General Education Literature requirement. Prerequisite: SPAN 206 or the equivalent.

**SPAN 360 Topics In Spanish (3)**

An examination of specific topics of the Spanish-speaking world.

**SPAN 491 Independent Study (1–3)**

Advanced Hispanic language/culture study or research.

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**SPMT 110 Sport Management Careers and Content (1)**

This course is an introduction to the field of sport management and will be completed by first-year students during the fall semester. Career options and managerial content will be reviewed. Foundational studies of sport, including history, philosophy, and professional skills will be discussed as they relate to the field of sport management.

**SPMT 210 Ethics and Law in Sport Management (3)**

This course integrates the ethical strategies of sport management along with the demonstration of how constitutional law, contract law, tort law, labor and anti-trust law, and discrimination apply to the sport management industry. (Alternate years, offered Fall semester 2013.)

**SPMT 211 Economics and Governance in Sport (3)**

The primary goal of this course is to provide students interested in pursuing a career in the sport management field with a basic knowledge and understanding of the principles, processes and strategies related to economics/finances and governance of operating organizations whose mission involves the provision of sport related services and/or products. The principles of

economics/finances will be utilized to evaluate amateur and professional sports, including topics like league structure, team decision making, labor relations, incentive structures, free agency, salary caps, and stadium financing and the role of public policy. Macro and micro perspectives of governance and policy in sport organizations will be initiated to examine organizational structures, authority, sanctions, appeals processes, and the influence of governmental bodies and sports commissions on sport governing bodies.

**SPMT 313 Sport Facility and Event Management (3)**

This course is designed to assist the sport management student in acquiring the necessary knowledge and skills needed to manage a sport facility and to plan a sporting event. (Alternate years, offered Fall Semester 2014.)

**SPMT 314 Sponsorship and Marketing in Sport Management (3)**

Sport sponsorship and marketing is designed to apply marketing principles to the area of sport, sport events, and sport products. Sponsorship and marketing strategies including sales, promotions, and advertising of sport will be emphasized. (Alternate years, offered Spring Term 2013.)

**SPMT 391 Sport Management Practicum (3)**

This course provides the prospective sports manager with practical training and experience involving progressive learning in specific areas of interest. The student and advisor jointly select an approved site and plan the practical experience. Potential sites include, but not limited to, sport facilities, professional sports, television stations, and the commercial sports industry. Progressive and summary reports and regular meetings with the faculty sponsor and field supervisor are required. The student is evaluated by the faculty supervisor and the field supervisor. Prerequisite of junior or senior level status in the major.

**SPMT 410 Topics in Sport Management (2)**

In-depth investigation and development of an area of current sport management interest. (Alternate years, offered Spring Term 2013.)

**SPMT 411 Senior Seminar for Sport Management (3)**

Serves as a capstone course for Sport and Exercise Science Majors. Stresses reading current literature, discussing critical ideas, and formulating the relationship between Christian faith and the sport management profession.

**SPMT 497, 498 Majors Honors (3,3)**

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5 and departmental approval required for enrollment.

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**STAT 269 Introductory Statistics (3)**

Descriptive measures, normal distributions, one-sample and two-sample hypothesis testing and estimation, correlation, and analysis of variance. Meets General Education Mathematical Sciences requirement.

**STAT 281 Applied Statistics for Management (3)**

Topics in probability and statistics: descriptive measures, distributions, one-sample estimation and hypothesis testing, correlation, simple linear regression and categorical data. Prerequisite: MATH 107, 108, 109 or 111.

**STAT 291 Statistics for Mathematical Sciences I (3)**

Topics in probability and statistics: descriptive methods, conditional and unconditional probability, discrete and continuous distributions, one-sample estimation and hypothesis testing. Meets General Education Mathematical Sciences requirement. Prerequisite: a grade of C- or better in MATH 108, MATH 110, MATH 111 or equivalent. (Offered Fall Semester only.)

**STAT 292 Statistics for Mathematical Sciences II (3)**

Further topics in probability and statistics: two-sample estimation and hypothesis testing, analysis of variance, categorical data, simple and multiple regression, and nonparametric techniques. Prerequisite: STAT 291. (Offered Spring Term only.)

**STAT 324 Advanced Statistical Methods (3)**

Analysis of covariance: multivariate analysis of variance, discriminant analysis, stepwise regression, logistic regression, factor analysis, and an introduction to SAS®. Prerequisite: STAT 292. (Offered Spring Term, even years.)

**STAT 325 Experimental Design (3)**

Experimental designs and analyses for a variety of problems: completely randomized, randomized complete block, Latin square, completely randomized with factorial treatments, unbalanced and/or incomplete, random effects, mixed effects, nested; multiple comparisons; introduction to SAS®. Prerequisite: STAT 292. (Offered Spring Term, odd years.)

**STAT 346 Statistical Methods in Operations Research (3)**

Linear programming, simplex method, project management with PERT/CPM, deterministic dynamic programming, probabilistic dynamic programming, integer programming, queuing theory, introduction to SAS®. Prerequisite: STAT 291. (Offered Fall Semester, even years.)

**STAT 407 Introductory Mathematical Statistics (3)**

Mathematical theory underlying probability, statistical estimation, and hypothesis testing: random variables and their distributions, distributions of functions of random variables, sampling distributions, limiting distributions, and the Central Limit Theorem. Prerequisites: MATH 211 and STAT 291. (Offered Fall Semester, odd years.)

**STAT 491 Independent Study (1-3)**

Investigation and application of advanced statistical concepts. (Offered on demand.)

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**SUST 140 Ecology and Sustainability (3)**

This course is designed to give students an introductory understanding of how ecological systems and ecological principles apply to natural ecosystems and the human interface with those systems. It will discuss ecological sustainability, economic sustainability, and social sustainability. It will include topics such as global biogeochemical cycles, the hydrologic cycle, the carbon cycle, trophic levels in ecosystems, competition, predation, parasitism, mutualism, population dynamics, agriculture, forestry and biodiversity. Two lectures and three hours of laboratory per week. Meets General Education Laboratory Science requirement. Does not meet Department of Biological Sciences major requirement. Cross-listed with BIOL 140.

**SUST 495 Sustainability Capstone (3)**

This course is a problem solving seminar reviewing the philosophical underpinnings of sustainable development and extending them by solving problems. Students will explore the fundamental assumptions of sustainability; call upon the skills learned in their specific tracks of study and work together as an integrative team to vocationally address an unsustainable situation in a specific geographic location. Course will include exploration of sustainability studies as a Christian vocation, explicit focus on project management, work tracked in increments relative to goals, and development of portfolios for each participant for use in seeking future employment. Course is intended for Seniors. Prerequisite: BIOL/SUST 140, BIOL 216, or 274.

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**T****TEP 210 Sophomore Field Experience (0)**

Students in this course will conduct observations in an urban and a rural or suburban school. They will observe in multiple classrooms to ensure exposure to varied grade levels, classroom types, and subject areas (including music, art, and HPE). Students will spend 40 hours in the field. Related course assignments will be made in EDSP 207 Introduction to Special Education and EDUC 203/PSYC 203 Educational Psychology. Concurrent Courses: EDSP 207 Introduction to Special Education (all certification students); EDUC 203/PSYC 203 Educational Psychology (Secondary, K-12, and Grade 4-8 students only). (Pass/Fail grade only.)

**TEP 310 Junior Field Experience (0)**

Junior-level field experience for secondary and K-12 teacher certification students which provides opportunity for observation and practice in elementary or secondary school settings as appropriate to the certification. Students are expected to connect theoretical ideas acquired in prerequisite and co-requisite courses with actions and decision-making processes associated with effective teaching. Focus on instructional planning and assessment. Concurrent enrollment in EDSP 307 (except HPED students), EDUC 308, and one of: EDUC 331, ART 331, MUED 301, MUED 401, or HPED 332. (Pass/Fail grade only.)

**TEP 312 Field Experience II in PreK-Grade 2 (0)**

Students are actively engaged in the teaching and learning process for approximately 80 hours in a PreK-grade 2 classroom. Students complete assignments from concurrent courses including using PA academic standards and anchors in literacy and math for instructional planning, implementation, and assessment. They create and modify lessons and assessments as needed for students with special needs who are included in their classroom. Concurrent courses: EDUC 301, 303, 308, 330; EDSP 307. (Offered Fall Semester only.)

**TEP 314 Field Experience III in Grade 2-Grade 4 (0)**

Students are actively engaged in the teaching and learning process for approximately 80 hours in a grade 2-4 classroom. Students complete assignments from concurrent courses including using PA academic standards and anchors in literacy and math, science, and social studies for instructional planning, implementation, and assessment. They create and modify lessons and assessments as needed for students with special needs who are included in their classroom. Students use assessment data to inform their classroom

decision-making. Concurrent courses: EDUC 302, 304, 342, 347, 312. (Offered Spring Term only.)

#### **TEP 393 Teaching Practicum (1-3)**

Teaching-related experiences in classrooms and/or non-traditional setting which provide 1) opportunities for enhancing personal and/or professional skills, 2) acquisition and/or application of content knowledge and pedagogic experiences, 3) exploration of additional career opportunities available to teachers, 4) integration of theory and practice in varied settings with diverse audiences. Credit award is based on length and intensity of involvement as well as the number and depth of learning objectives/outcomes to be accomplished. (Pass/Fail grade only.)

#### **TEP 410 Secondary Pre-Student Teaching Experience (0)**

Senior-level field experience in a secondary school context which provides opportunity for observation, reflection, and practice. Students will have opportunities to examine the whole school context through interactions with building-level administrators, school counselors, special educators, classroom teachers, and other professionals and para-professionals. Students will also spend time in certification area specific school settings. Students are expected to connect theoretical ideas acquired in prerequisite and co-requisite courses with actions and decision-making processes associated with effective teaching. Focus on establishing positive classroom climate, developing instructional plans and assessment, and professional interactions with other educators in preparation for the student teaching experience. Concurrent enrollment in TEP 435. (Pass/Fail grade only.)

#### **TEP 411 Pre-Student Teaching Experience in HPE (0)**

Senior-level field experience in a Health and Physical Education context which provides opportunity for observation, reflection, and practice. Students will have opportunities to examine the whole school context through interactions with building-level administrators, school counselors, special educators, classroom teachers, and other professionals and para-professionals. Students will also spend time in certification area specific school settings. Students are expected to connect theoretical ideas acquired in prerequisite and co-requisite courses with actions and decision-making processes associated with effective teaching. Focus on establishing positive classroom climate, developing instructional plans and assessment, and professional interactions with other educators in preparation for the student teaching experience. Concurrent enrollment in TEP 431. (Pass/Fail grade only.)

#### **TEP 412 Pre-Student Teaching Experience in Art (0)**

Senior-level field experience in an Art Education context which provides opportunity for observation, reflection, and practice. Students will have opportunities to examine the whole school context through interactions with building-level administrators, school counselors, special educators, classroom teachers, and other professionals and para-professionals. Students will also spend time in certification area specific school settings. Students are expected to connect theoretical ideas acquired in prerequisite and co-requisite courses with actions and decision-making processes associated with effective teaching. Focus on establishing positive classroom climate, developing instructional plans and assessment, and professional interactions with other educators in preparation for the student teaching experience. Concurrent enrollment in TEP 437. (Pass/Fail grade only.)

#### **TEP 413 Pre-Student Teaching Experience in Music (0)**

Senior-level field experience in a Music Education context which provides opportunity for observation, reflection, and practice. Students will have opportunities to examine the whole school context through interactions with building-level administrators, school counselors, special educators, classroom teachers, and other professionals and para-professionals. Students will also spend time in certification area specific school settings. Students are expected to connect theoretical ideas acquired in prerequisite and co-requisite courses with actions and decision-making processes associated with effective teaching. Focus on establishing positive classroom climate, developing instructional plans and assessment, and professional interactions with other educators in preparation for the student teaching experience. Concurrent enrollment in TEP 438. (Pass/Fail grade only.)

#### **TEP 416 Field Experience II in Grades 6-8 (0)**

Students are actively engaged in the teaching and learning process for approximately 80 hours in a middle school classroom. Students complete assignments from concurrent courses including using PA academic standards and anchors in literacy and math for instructional planning, implementation, and assessment. They create and modify lessons and assessments as needed for students with special needs who are included in their classroom. Since students take Middle Level Education (EDUC 305) concurrently, they also explore elements of middle school philosophy and the intersection of quality middle schools with the unique needs of young adolescents. Concurrent courses: EDUC 305, EDUC 308, EDUC 331, EDUC 347, EDSP 307. (Offered Fall Semester only.)

#### **TEP 418 Field Experience III in Grades 4-5 (0)**

Students are actively engaged in the teaching and learning process for approximately 80 hours in a grade 4-5 classroom. Students complete assignments from concurrent courses including using PA academic standards and anchors in literacy and math, science, and social studies for instructional planning, implementation, and assessment. They create and modify lessons and assessments as needed for students with special needs who are included in their classroom. Students use assessment data to inform their classroom decision-making. Concurrent courses: EDUC 302, EDUC 304a, EDUC 342. (Offered Spring Term only.)

#### **TEP 420 Special Education Internship (0)**

Students in this course spend a minimum of 80 hours in a special education classroom setting. In this placement, students design and deliver instruction and assessment. Students also use data to inform instructional decisions. Prerequisites: EDSP 307, EDSP 397. Concurrent enrollment with EDSP 398, EDSP 399, and EDUC 414, EDUC 415.

#### **TEP 431 Student Teaching: Health and Physical Education (10)**

Observation and participation in teaching elementary, and middle or high school health and physical education under the supervision of College faculty and experienced cooperating teachers in nearby schools. Prerequisite: Admission to Professional Semester. (Pass/Fail grade only.)

#### **TEP 432 Student Teaching: PreK-4 and Special Education (8)**

Participation in teaching under the supervision of College faculty and experienced cooperating teachers in public schools. One-half of the experience will be supervised by a cooperating teacher certified in special education who provides special education services. The

other half will be supervised by a cooperating teacher certified in regular education who teaches in a regular education classroom. Prerequisite: Admission to Professional Semester. Concurrent enrollment in EDUC 407 and 420. (Pass/Fail grade only.)

**TEP 433 Student Teaching: Grades 4-8 (8)**

Participation in teaching under the supervision of College faculty and experienced cooperating teachers in public schools. Prerequisite: Admission to Professional Semester. Concurrent enrollment in HDFS/PSYC 311, EDUC 407 and EDUC 420. (Pass/Fail grade only.)

**TEP 434 Student Teaching: PreK-4 (8)**

Participation in teaching under the supervision of College faculty and experienced cooperating teachers in public schools. Prerequisite: Admission to Professional Semester. Concurrent enrollment in EDUC 407 and 420. (Pass/Fail grade only.)

**TEP 435 Student Teaching: Secondary (8)**

Participation in teaching in the area of certification under the supervision of College faculty and experienced cooperating teachers in public schools. Prerequisite: Admission to Professional Semester. Concurrent enrollment in EDUC 420, PSYC/HDFS 311, and discipline-specific Curriculum and Instruction course (ENGL 407, HDFS 407, HIST 407, LANG 407, MATH 407, or BIOL/CHEM 407). (Pass/Fail grade only.)

**TEP 437 Student Teaching: Art (8)**

Practical experience in instructional planning and teaching art under the supervision of College faculty and experienced cooperating teachers in public schools. Includes both elementary and secondary levels. One semester (12 weeks) as assigned. Prerequisite: Admission to Professional Semester. Concurrent enrollment in ART 407. (Offered Spring Term only.) (Pass/Fail grade only.)

**TEP 438 Student Teaching: Music (8)**

Practical experience in teaching under supervision of College faculty and experienced cooperating teachers in public schools. Placement is made in student's area of emphasis: vocal or instrumental. One semester (12 weeks) as assigned. Concurrent enrollment in MUED 407. Prerequisite: Admission to Professional Semester. (Offered Spring Term only.) (Pass/Fail grade only.)

**TEP 439 Student Teaching: Domestic and International (8)**

Participation in teaching under the supervision of College faculty and experienced cooperating teachers and supervisors. A minimum of seven weeks completed in a Pennsylvania school and a minimum of six weeks completed in a school outside of the United States. Prerequisite: Admission to Professional Semester. Concurrent enrollment in EDUC 407 or ENGL 407 or HDFS 407 or HIST 407 or LANG 407 or MATH 407 or BIOL/CHEM 407 or HPED 433.

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**THEA 110 Introduction to Theatre (3)**

A survey of the theatre as a humanizing art. Students are introduced to historical and cultural influences, dramatic theory, staging styles and techniques, and major movements in dramatic writing. Analytical readings of play texts are supplemented by viewings of live and recorded performance. In addition to play analysis, students are introduced to the production process through workshops and guest lectures on the role of the actor, director, producer, and stage

manager as well as the costume, lighting, set, and sound designer in current departmental and local productions. Meets General Education Arts requirement.

**THEA 115 Production Practicum (1)**

Participation required in at least one departmental production activity. Required every semester the student is a full-time major. Open to Theatre majors and minors only.

**THEA 120 Introduction to Acting (3)**

An overview of basic acting skills such as relaxation, concentration, and imagination, and also of the various ways in which the actors' art has been conceived from the ancient Greeks to the present. There are selected readings, discussion, laboratory exercises, improvisation, and scene work. Meets General Education Arts requirement.

**THEA 150 Introduction to Technical Theatre and Design (3)**

An introduction to the backstage arts and technology of theatrical production, designed to give the student a broad understanding of the history and development of theatre crafts, as well as an understanding of the basic principles and technical procedures used in the design and execution of scenery, costumes, lighting, and sound. Meets General Education Arts requirement.

**THEA 220 Voice and the Actor (3)** Vocal production as an integral part of the psychomuscular process of breathing, relaxation, and energy. Attention is given to the anatomy and physiology of human vocal projection with practical application to theatrical performance.

**THEA 225 Movement and the Actor (3)**

Basic movement instruction designed to discover the psychological and physical control over movement, and to practice applying these skills to role development.

**THEA 230 Fundamentals of Play Directing (3)**

Basic elements of directing, with laboratory work in theatrical problems and short scenes. Readings and discussions on directing theory. Prerequisite: THEA 120.

**THEA 240 Survey of Dramatic Literature and Criticism (3)**

Considers the development of dramatic literature, theory, and criticism from the Antiquity to postmodernism. Students interact with the ideas of seminal theorists and apply them through a variety of play scripts and productions.

**THEA 250 Stage Management (3)**

Introduction and application of basic principles of stage management, with emphasis on the paperwork and procedures required in theatrical productions. Considers other forms of performance which utilize a stage manager such as opera, dance, and touring productions. Prerequisite: THEA 150.

**THEA 260 Musical Theatre (3)**

Introduction to the theory and practice of musical theatre production. Includes preparing and performing a musical. Cross-listed with MUSI 271.

**THEA 261 Theatre for Young Audiences (3)**

Introduction to the theory and practice of theatre for young audiences. Includes preparing and performing a play for children.

**THEA 320 Acting Techniques (3)**

Development of a viable acting technique through the coordination of thought, movement, and voice. Emphasizes textual and character analysis as the focal point of the acting process. Course work includes exercises, monologues, scene work, and keeping a journal. Prerequisite: THEA 120.

**THEA 325 Acting Techniques for Musical Theatre (3)**

Study and performance of scenes, duets, trios, and ensembles from the Musical Theatre repertoire. Topics include the structure of sung theatre, exercises, the synthesis of music, text and score, and the relationship between character, music and sound.

**THEA 340 History of Theatre I: Antiquity to Renaissance (3)**

This survey course considers evidence of the theatrical past including theatre architecture, production values, acting and directing styles, and the political and social movements that informed these traditions. Through selected readings, discussion, projects, and multimedia, students consider seminal moments in the development of the theatre from its conjectured origins in ancient Greece and Rome to the European Renaissance.

**THEA 341 History of Theatre II: Renaissance to Postmodernism (3)**

A continuation of THEA 340. Considers the politics of historiography and the implications of cultural theory in shaping our own contemporary "readings" of the theatrical past.

**THEA 350 Scenographic Techniques (3)**

Exploration and application of graphic fundamentals for use in theatrical design. Emphasis on two dimensional forms of communication such as drafting, costume rendering, and mechanical perspective. Prerequisite: THEA 150.

**THEA 360 Topics in Theatre (1-3)**

Selected topics in theatre not currently included in course offerings. Topics may include performance styles and techniques; studies of particular periods, movements, or innovators in theatre history, theory, dramatic criticism, and literature; technical production and design.

**THEA 361 Creative Dramatics (3)**

Exploration of the theories and techniques of pedagogical, ministerial, and developmental uses of drama and theatre activities and exercises with young people in a variety of environments including educational institutions, youth groups, camps, and special events. Students will participate in, design and conduct Creative Dramatics Sessions which do not pursue performance as their objective, but rather use the processes of drama and theatre to pursue goals such as self-expression, exploration of issues and solutions, and personal and social development. Meets General Education Arts requirement.

**THEA 362 Studies in Irish Theatre: Gaiety School of Acting (4)**

An applied study of Irish theatre facilitated by the faculty at the Gaiety School of Acting, Dublin, Ireland. Intensive acting workshops are complemented by seminars in Irish dramatic literature and attendance at a variety of Dublin theatres. Prerequisites: Audition, approval of the Department of Chair. (Offered J-Term only.)

**THEA 363 Theatre for Social Change (3)**

This course explores theatre created in the pursuit of social justice. Students interact with 20<sup>th</sup> century performance practices that use theatre as a venue for consciousness raising and civic dialogue. Theoretical approaches are applied in laboratory sessions which invite the student to evaluate the efficacy of specific processes. Course material includes western and Non-Western forms of community animation. Meets General Education Arts requirement.

**THEA 381 Theatre Internship (1-3)**

Theatre work under the supervision of a theatre professional. Open to junior and senior Theatre majors who have completed at least four Theatre courses.

**THEA 420 Audition Techniques (3)**

For seniors in the BA in Theatre and the BFA in Musical Theatre programs. Research and preparation of auditions for work in professional theatre venues. Discussions and reading address repertoire, techniques, and necessary procedures. Students prepare 4-6 professional auditions for class simulation. The term culminates in a showcase for invited agents and Theatre professionals.

**THEA 450 Theatre Design (3)**

Studio course designed to give the student an examination into the chosen area of study. Emphasis on textural interpretation, design theory and aesthetics, development of specific design concepts, and the means to express and communicate the design. Prerequisites: THEA 150 and THEA 350.

**THEA 470 Theatre Capstone Practicum (1-3)**

Senior Theatre majors will conduct a significant final portfolio project as supervised and approved by the Theatre faculty.

**THEA 475 Theatre Capstone Seminar (3)**

Explores the relationship of theatre arts to faith and ethics. Requires students to discover connections between theatre practice and their philosophical presuppositions while preparing them for careers in the respective fields. Prerequisite: Must be taken in conjunction with a senior-level project. (Offered Fall Semester only.)

**THEA 491 Independent Study (1-3)**

Independent study or research in theatre under the supervision of an instructor. Instructor's approval must precede enrollment.

**THEO 205 Introduction to Christian Theology (3)**

A survey course dealing with the history and present expressions of classic Christian understandings of God, Christ, the Holy Spirit, humanity, creation, redemption, etc. Issues of theological method are introduced, especially as this relates to the integration of faith and learning in various academic disciplines. Meets General Education Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

**THEO 207 African-American Theology (3)**

Explores African-American theology, spirituality, and ethics, with special attention to Black Theology. Meets General Education Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

**THEO 209 Anabaptist Theology (3)**

Explores core Christian beliefs through a study of the history and present teachings of a variety of Anabaptist churches, identifying

similarities and differences with a variety of other Christian traditions. Special attention is given to the peace witness of this tradition. Meets General Education Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

#### **THEO 211 Brethren in Christ Life and Thought (3)**

Founding, historical development, and present situation of the Brethren in Christ, with special attention to their interaction with other religious bodies and with society generally. Meets General Education Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

#### **THEO 213 Pentecostal Theology (3)**

Explores Christian theology, spirituality, and ethics through an analysis of the beliefs and practices of Pentecostal and charismatic movements around the world, identifying similarities and differences with a variety of other Christian traditions. Meets General Education Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

#### **THEO 215 Roman Catholic Theology (3)**

A general introduction to Christian theology that pays special attention to the beliefs, practices, and traditions of the Roman Catholic Church, identifying similarities and differences with a variety of Protestant perspectives. Meets General Education Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

#### **THEO 217 Wesleyan/Holiness Theology (3)**

Examines major Christian doctrines from the perspectives of the Wesleyan/Holiness movement, identifying similarities and differences with a variety of other Christian traditions. Special attention is given to social holiness. Meets General Education Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

#### **THEO 219 Theology and Christian Unity (3)**

Examines various Christian theological traditions (e.g., Catholic, Orthodox, Reformed, Anabaptist, Pietist, Wesleyan/Holiness) exploring areas of commonality and difference and assessing possibilities and problems related to the goal of Christian unity. Meets General Education Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

#### **THEO 221 Faith and Society (3)**

Foundational Christian beliefs are surveyed with attention to the Gospel's social mandate. The course includes reflection on the Christian commitment to social activism and peacemaking. Meets General Education Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

#### **THEO 223 Global Christian Theology (3)**

Explores the methods and content of Christian theology, spirituality, and ethics from a global perspective with special attention given to Africa, Asia, and Latin America. Meets General Education Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

#### **THEO 225 Practical Theology of the Urban Church (3)**

This course studies how Christian beliefs and institutions have been shaped by and help to direct community life within urban locations. Course content focuses on current methods and skills of urban

church ministry, community organizing, and social change within a city. Consideration is given to different church strategies used to accomplish service to a local neighborhood. Cross-listed with URBS 319. Meets General Education Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

#### **THEO 227 Theology, Violence, and Nonviolence (3)**

Examines how core Christian beliefs and moral teachings relate to the issues of violence and non-violence. Meets General Education Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

#### **THEO 229 Theology and American Culture (3)**

Examines core Christian Beliefs through key movements, people, and debates in North American church life, both past and present. By reading sermons, confessions, and other theological documents in their historical contexts, students will encounter both the unity and diversity of Christian belief in America, and deepen their understanding of the relationship between theology and culture. Meets General Education Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

#### **THEO 238 Christian Theology I: God and Humanity (3)**

A survey course dealing with the history and present expressions of classic Christian understandings of God, Christ, the Holy Spirit, humanity, creation, culture, redemption, etc. Issues of theological method are also introduced. Alternate to THEO 205, reserved for students pursuing a major or minor in Christian Ministries. Meets General Education Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

**THEO 239 Christian Theology II: The Nature and Mission of the Church (3)** A biblical and historical study of the doctrine of the nature and mission of the church with special attention to the doctrines of atonement and reconciliation and to those models of the church that are relevant to those preparing for Christian ministry in the contemporary world. Prerequisite: THEO 238.

#### **THEO 305 Christian Theology of Religious Pluralism (3)**

A review and analysis of how Christian theologians have understood the relationship between Christianity and other religions. Practical concerns of interaction with followers of other religions will also be explored. Prerequisites: THEO 205 or THEO 238 and one 200-level RELI course.

**THEO 338 Christian Theology III: Peace, Justice, and Reconciliation (3)** This course considers the biblical and theological themes pertinent to conflicts that occur on personal, national, and global levels (and are rooted in such evils as racism, sexism, materialism, and militarism) and introduces students to possibilities for prophetic intervention that works toward peacemaking, the restoration of justice, and divine and human reconciliation. Prerequisites: THEO 238 and THEO 239.

#### **THEO 340 Modern Theology (3)**

Major developments in Christian theology from 1800 to the late 20<sup>th</sup> century are examined. Special attention will be given to thinkers whose influence continues to shape theological reflection today. Prerequisite: a course that meets General Education requirement in Christian Beliefs.

**THEO 345 Contemporary Theology (3)**

Contemporary theology varies greatly in terms of both topics of discussion and methods of analysis. This course selectively examines some of the most important voices within that diversity, focusing on theological works published in the last three decades. Particular attention will be given to theological discourse on justice and reconciliation. Prerequisite: a course that meets General Education requirement in Christian Beliefs.

**THEO 354 Theology and Gender (3)**

A historical and contemporary introduction to theological reflection on the meaning and significance of gender for Christian life and for the articulation of Christian doctrinal convictions. In particular, this course will explore the ways recent theologians have incorporated insights related to gender studies from a variety of academic disciplines. Special attention will be paid to the work of women theologians in both North American and two-thirds world contexts and the impact of social location on theological perspectives. Prerequisite: IDCR 151. Meets General Education Pluralism in Contemporary Society requirement.

**THEO 366 Topics in Theology (3)**

Examines in depth specific issues or doctrines. Course content varies according to topic. Prerequisite: THEO 205.

**THEO 487 Biblical and Religious Studies Seminar (3)**

Students integrate the different subjects they have studied as undergraduates and hone their skills for lifelong learning after college. The specific subject matter of the course will vary from semester to semester. As a seminar, students will be expected to present their own work and lead discussions. Prerequisite: Senior status or with Instructor's consent.

**THEO 491 Independent Study (1-3)** Selected topics pursued independently with frequent consultation with a faculty supervisor.

**THEO 497, 498 Major Honors (3)**

Independent research program for students who have a strong academic record (3.5 cumulative GPA) for a minimum of five previous semesters of college study. Departmental approval required for enrollment.

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**URBS 260 Cross-Cultural Studies: Urban/Philadelphia or Harrisburg (1)** This course addresses the theory and practice of navigating and interpreting the complex social context of the urban landscape with an emphasis on either North-Central Philadelphia or Harrisburg. The city serves as the setting for developing transferable skills in cross-cultural examination, understanding, and practice. Students will study the forces at work in shaping the city and will develop and refine skills in cross-cultural observation to better understand local and global cultures and the issues at play in the U.S. urban landscape. Meets General Education Cross-Cultural requirement.

**URBS 303 Eco-Urban Footprints: Examining Natural and Social Ecologies (3)** This course studies urban landscapes as hybrid phenomena that emerge from an integral relationship between various ecological processes in which people have been and continue to be the dominant agents of change. A primary focus of this course is an interdisciplinary orientation to urban environmental studies in which concepts, methodology, and techniques of analysis (environmental, science, theology, ethics, sociology, and aesthetics) will be applied to community-based research projects. Attention will be given to strategizing new forms of urban living that are conducive to ecological sustainability. Meets General Education Science, Technology and the World requirement. Course fee - \$35.

**URBS 306 Urban Issues and Ethical Choices (3)**

This class engages ethical interpretations of and responses to global urban conditions caused by economic impoverishment, political disenfranchisement, and social and cultural marginalization. Special attention is dedicated to the 'how' and 'why' of the formation of Christian Ethics and the importance of Christian community in forming ethics and individuals for confronting realities of systemic injustice in the urban setting. The city of Philadelphia is used as a context from which to reflect on ethical issues such as poverty, racism, economic development, geopolitics, environmental policy, public health, education, housing, criminal justice, and welfare reform. Meets General Education requirement for Ethics.

**URBS 310 Urban Field Experience (3)**

This field experience course focuses on the urban setting. Students accomplish at least six hours per week for 15 weeks, 90 hours total, of on-site service learning during the semester, along with participation in a weekly seminar class, and the completion of writing assignments based on readings relevant to the urban context. Each student will compile a portfolio demonstrating the work the student has accomplished, integrating academic knowledge with field experience. Please note that travel expenses to the field placement are the student's responsibility and may need to be considered before registering for this course.

**URBS 319 Practical Theology of the Urban Church (3)**

This course studies how Christian beliefs and institutions have been shaped by and help to direct community life within urban locations. Course content focuses on current methods and skills of urban church ministry, community organizing, and social change within the city. Emphasis will be on the participant's own experience and discernments, resulting in some creative expression of how to build the church for the next generations. Cross-listed with THEO 225. Meets General Education Christian Beliefs requirement.

**URBS 382 Topics in Urban Studies (3)**

Selected topics in urban studies not currently included in course offerings. Possible topics may include public service in urban settings, urban families, issues and change in the Harrisburg urban context. May be repeated for additional credit as the topic/study changes. Prerequisite: Three credits in Sociology or Urban Studies or Instructor's consent.



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Jennifer Fisler, *Director of Academic Assessment*

### ***General Education and Common Learning***

Robin M. Lauer, *Assistant Dean of General Education and Common Learning*

Larry M. Lake, *Director of Writing Across the Curriculum*

James B. LaGrand, *Director of the Core Course*

### ***Internship Center***

Michael D. True, *Director of the Internship Center*

N. Michael Blount, *Associate Director, Internship Center*

Cathy R. Coleman, *Coordinator, Internship Center*

### ***Murray Library and Learning Commons***

Jonathan D. Lauer, *Director of the Murray Library and Learning Commons*

Cherie Fieser, *Library Special Projects Administrator/Curator of the Engle Memorial Collection*

Elizabeth Y. Kielley, *Associate Librarian/Technical Services Coordinator*

Beth L. Mark, *Librarian/Instruction Coordinator*

Lawrie H. Merz, *Librarian/Public Services Coordinator*

Michael D. Rice, *Librarian/Electronic Resources Coordinator*

Beth M. Transue, *Librarian/Collection Development Coordinator*

### ***Registrar's Office***

James J. Sotherden, *Registrar/Coordinator of Student Retention*

Carrie D. Widdowson, *Associate Registrar*

Paula C. Maynard, *Assistant Registrar*

### ***Academic Support***

Kathleen D. Quimby, *Director, Supplemental Instruction*

Ann S. Rohrbaugh, *Director of the Learning Center*

Amy C. Slody, *Director of Disability Services*

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## **Office of Advancement**

Barry G. Goodling, *Vice President for Advancement*

### **Alumni and Parent Relations**

Jay W. McClymont, *Director of Alumni and Parent Relations*

Brittany E. Claridge, *Assistant Director, Alumni and Parent Relations*

### **Development**

Jon C. Stuckey, *Director of Development*

Joanna E. Barnhouse, *Regional Advancement Representative*

Erin C. Beck, *Grants Coordinator*

Robert O. Brown, Jr., *Director of Planned and Leadership Gifts*

Elisabeth T. Clark, *Director of Annual Giving*

Daniel D. Custer, *Assistant Director of Annual Giving*

Robert L. Feil, *Prospect Research Officer*

Susan M. Jaycox, *Director, Development Services and Data Analytics*

Susan P. Mayernick, *Regional Development Officer & Heritage Society Advisor*

Lucinda K. Petersheim, *Senior Advisor for Development*

Lauren Seneca, *Assistant Director of Annual Giving*

Mark Templeton, *Heritage Society Coordinator*

Patrick J. Wolfkill, *Regional Advancement Representative*

### **Marketing and Public Relations**

Carla E. Gross, *Director of Marketing and Communications/Special Assistant to the President for Communication*

### ***Print and Web Communications***

Benjamin E. Bond, *Graphic Designer*

Erin Bray, *Marketing Communications Writer*

Anne Burkley, *Graduate Programs Marketing Coordinator*

Ramona Fritschi, *Web Services Manager*

Kristopher C. Hardy, *Director of Web Communications*

Anna M. Seip, *Editor*

Nancy E. Soulliard, *Creative Director*

### ***Public Relations***

Beth L. Lorow, *Director of Communications*

Sherri M. Hoffman, *Projects and Research Coordinator*

Yonette C. Schneider, *Special Events Coordinator*

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## Office of Enrollment Management

John A. Chopka, *Vice President for Enrollment Management*

Robert C. Pepper, *Director of Graduate Enrollment and Student Services*

### Admissions

Dana J. Britton, *Director of Admissions*

Randall L. Ness, *Director of Recruitment and Constituent Relations*

D. Timothy Agnolutto, *Coordinator of Recruitment and Academic Marketing*

Joy L. Ellis, *Assistant Director of Admissions for Visitation and Telecounseling*

Rusty S. Hoffman, *Admissions Counselor*

Heather H. Keefer, *Visit Coordinator*

David J. Lesko, *Senior Admissions Counselor*

Allan Mathew, *Coordinator for Multicultural Student Recruitment*

Paul C. Morgan, *Assistant Director of Admissions for Recruitment*

Rebecca Rosenbarker, *Coordinator of Transfer and International Student Recruitment*

Rachel Shenk, *Admissions Counselor*

Brian Sweeney, *Assistant Director of Constituent Relations*

Sarah Wade, *Director of International and Transfer Student Recruitment*

Marcus J. Washington, *Coordinator of Recruitment and Pre-college Programs*

Zachary Specht, *Admissions Counselor*

### Financial Aid

Gregory L. Gearhart, *Director of Financial Aid*

Gretchen Greenwood, *Financial Aid Technical Coordinator*

Ryan R. Hannigan, *Senior Financial Aid Counselor/Coordinator of Grant Processing*

Teresa Stover, *Loan Processing Coordinator*

Michael R. Strite, *Associate Director of Financial Aid*

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## Office of Finance

David S. Walker, *Vice President for Finance and Planning*

Scott P. Tochtermann, *Endowment Portfolio Analyst*

Lois J. Voigt, *Chief Investment Officer*

### Business Office

Wendy S. Starnier, *Director of Financial Operations and Controller*

Stephen Badoo, *Senior Accounting Analyst*

Stephen I. Beaver, *Accounting Analyst*

Marilyn Donelson, *Director of Student Financial Services*

Erin Grayson, *Student Account Representative and Coordinator of Education Benefits*

David B. Hoffman, *Senior Accounting Analyst*

Donald J. Lerew, Jr., *Payroll Manager*

Catherine Poesz, *Assistant Bursar*

TBD, *Director of Purchasing*

### Institutional Research

Laura M. Miller, *Assistant Director of Institutional Research and Planning*

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## Office of Human Resources

Amanda A. Coffey, *Vice President for Human Resources and Compliance*

Inger L. Blount, *Assistant Director of Human Resources; Manager of Employment and Recruiting Services*

Kathleen M. Castonguay, *Human Resources Project Manager*

Susan M. Deitch, *Manager of Benefits*

Donna L. Fink, *Compliance Coordinator*

Donald J. Lerew, Jr., *HRIS and Compensation Manager*

---

## Office of Information Technology

William G. Strausbaugh, *Vice President for Information Technology*

### Information Technology Services

#### Information Services

John P. Luft, *Director of Information Services*

Gregory A. Daub, *Programmer Analyst*

Robert Q. Felix, *Programmer Analyst*

Robert S. Getty III, *Programmer Analyst*

Elizabeth A. Hoover, *Programmer Analyst*

Kevin M. Nutt, *IT Policy and Security Coordinator*

Susan M. Smith, *IT Operations Specialist for Budget, Planning and Research*

Jonathan P. Wheat, *Programmer Analyst*

TBD, *Programmer Analyst*

#### Learning Technology Services

Susan K. Shannon, *Director of Learning Technology Services*

Bertha L. Thompson, *Director of Technology Support Services*

Neil L. Weaver, *Director of Innovation Consulting*

Frederick W. Bernstein, *Digital Media Specialist*

Craig D. Gephart, *Helpdesk Support Tier II*

Chad N. Keene, *Assistant Manager of Student Computer Services*  
Ryan D. Mark, *Helpdesk Support Tier II*  
Vaughn E. Miller, *Helpdesk Support Tier II*  
Cynthia J. Tomes, *Instructional Designer*  
Network Services  
Tony L. Wyland, *Director of Network Services*  
Jonathan E. Anderson, *Server Specialist*  
Christopher P. Culbert, *Communication Infrastructure Analyst*  
Alex M. Lemmon, *Server Specialist*  
Jason A. Long, *Network Systems Analyst/Manager*  
Brian J. Sheaffer, *Network Specialist*

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## **Office of Operations**

Kathrynne G. Shafer, *Vice President for Operations*  
Craig Dalen, *Director of Sustainability*

### **Bookstore/Annex**

Mindy Lange, *Director, Campus Store*  
Donna L. Miller, *Senior Buyer*  
Aleisha R. Wildon, *Assistant Manager, Campus Store*

### **College Press**

Dwayne A. Magee, *Director of Printing and Mailing Services*  
William D. Althoff, *Manager of Postal Services and Bulk Mail*

### **Conference and Event Services**

Heather R. Negley, *Director of Conference and Event Services*  
Jonathan D. Bert, *Sound, Lighting & Event Coordinator*  
Charlotte K. Knudsen, *Conference and Events Coordinator*  
Dennis L. Weller, *Conference and Events Coordinator*

### **Dining Services**

Mark H. Wirtz, *Director of Dining Services*  
Thomas M. Biesecker, *Assistant Restaurant Manager*  
Daniel D. Campbell, *Assistant Retail Restaurant Manager*  
Claire E. Dacko, *Catering Sous Chef*  
Percell D. Green, *Executive Chef*  
Douglas E. Kirkland, *Purchasing/Production Manager*  
Stephen G. Musti, *Retail Sous Chef*  
Derrick Trent, *Catering Manager*  
Jennifer L. Whitcomb, *Manager of Resident Dining*

### **Facility Services**

Bradley A. Markley, *Director of Facility Services*  
Russell J. Ehrich, *Project Manager*

### **Campus Events**

R. Scott Zeigler, *Campus Events Manager*

### **Facility Maintenance**

Daniel P. Smith, *Service Manager*

### **Grounds Services**

Jared D. Rudy, *Grounds Services Manager*

### **Safety**

Cindy L. Burger, *Director of Safety and Dispatch Services*  
Lynn A. Maynard, *Assistant Director of Security, Compliance and Administrative Services*  
Sean E. Paddock, *Assistant Director of Safety, Patrol and Operations*

# COMMUNITY OF EDUCATORS

Date indicates eligibility for membership in Community of Educators

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## Ex-Officio

- Randall G. Basinger**, *Provost; Professor of Philosophy* 1983  
B.A., Trinity College, 1972; M.A., Trinity Evangelical Divinity School, 1974; Ph.D., Northwestern University, 1979.
- Kim S. Phipps**, *President; Professor of Communication* 1998  
B.A., Kentucky Christian College, 1978; M.A., Morehead State University, 1979; Ph.D., Kent State University, 1985.

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## Curricular Administrators

- John A. Addleman**, *Associate Provost for Graduate and Nontraditional Programs; Director, Graduate Program in Counseling; Professor of Counseling* 1988  
B.A., Wheaton College, 1979; M.Div., Trinity Evangelical Divinity School, 1983; M.S., Shippensburg University, 1987; Ph.D., University of Maryland, 1990.
- Tonya L. Baker**, *Graduate Programs Manager* 2010  
B.A., Shippensburg University, 1992; M.A., Lancaster Bible College, 2004.
- N. Michael Blount**, *Associate Director, Internship Center* 1997  
B.S., Northwestern College, 1991; M.A., Bethel College (Minnesota), 1996.
- Cathy R. Coleman**, *Internship Coordinator; Interim Assistant Pastor, College Ministries; Counselor Specializing in Multicultural, International and MK Students* 2012  
B.S., Lancaster Bible College, 2008; M.S., Lincoln University, 2005.
- Dean C. Curry**, *Director of the College Honors Program; Professor of Politics* 1980  
B.A., Houghton College, 1974; M.A., University of Pennsylvania, 1975; Ph.D., Claremont Graduate University, 1981.
- Susan R. Donat**, *Coordinator of Curriculum and Assessment* 2011  
B.A., Westminster College, 1991; M.Ed. Pennsylvania State University, 2000; ABD, Indiana University of Pennsylvania.
- Steven S. Funck**, *Manager, Natural Sciences Laboratory Program* 2012  
B.S., Grove City College, 1974; M.S., University of Kansas, 1983.
- Ryan R. Gladwin**, *Program Director, Messiah College Philadelphia Campus* 2010  
B.A., Messiah College, 1998; M.Div., Duke University Divinity School, 2006.
- Stacey L. Griffiths**, *Director, Early Learning Center* 2012  
B.A., M.Ed., State University of New York at Buffalo, 1994, 1999.
- Richard T. Hughes**, *Distinguished Professor of Religion* 2006  
B.A., Harding University, 1965; M.A., Abilene Christian University, 1967; Ph.D., University of Iowa, 1972.
- Nathaniel R. Kamban**, *Project Manager (Water and Disability), Collaborator for Strategic Partnerships and Applied Research* 2011  
B.A., Mount Union College, 2009; M.A., University of Pittsburgh, 2011.
- Jonathan D. Lauer**, *Director of the Murray Library and Learning Commons* 1989  
B.A., Wheaton College (Illinois), 1974; M.A., University of Chicago, 1978; M.A., Wheaton College Graduate School, 1984.
- Kenneth D. Mark**, *Director, The Oakes Museum of Natural History* 2001  
B.A., Messiah College, 1972; M.A., Shippensburg University, 1975.
- W. Ray Norman**, *Dean, School of Science, Engineering and Health; Associate Professor of Engineering* 2002  
B.S., Auburn University, 1980; M.S., Cornell University, 1984; Ph.D., Cornell University, 1988.
- Peter K. Powers**, *Dean, School of the Humanities; Professor of English* 1997  
B.A., Wheaton College, 1982; M.F.A., University of Montana, 1985; M.A., Ph.D., Duke University, 1987, 1991; Messiah College Scholar Chair, 2002-2004.
- Richard E. Roberson**, *Dean, School of the Arts; Professor of Music* 1983  
B.Mus., Indiana University, 1975; M.Mus., D.M.A., University of North Texas, 1977, 1979.
- Susan K. Shannon**, *Director of Learning Technology Services* 2008  
B.S., Shippensburg University, 1989; M.S., Shippensburg University, 1993.
- Amanda Jane Sigel**, *Field Placement, Internship and Certification Coordinator* 2012  
B.A., University of Richmond, 1989; M.S., Shippensburg University, 2011.
- Janice E. Slabaugh**, *Master Teacher, Early Learning Center* 2008  
B.S., Messiah College, 1976; M.Ed., Penn State University, 2006.
- Amy C. Slody**, *Director of Disability Services* 2011  
B.A., Lock Haven University, 1999; J.D., Widener University School of Law, 2003

<b>James J. Sotherden</b> , <i>Registrar; Coordinator of Student Retention</i> B.S., Lemoyne College, 1980; M.S., Syracuse University, 1987.	1999
<b>William G. Strausbaugh</b> , <i>Vice President for Information Technology; Associate Provost; Assistant Professor of Computer Science</i> B.A., Messiah College, 1979; M.S., Villanova University, 1981; Ph.D. course work, Temple University; D.Ed., Pennsylvania State University, 2003.	1981
<b>Jon C. Stuckey</b> , <i>Director of Development; Assistant Professor of Sociology</i> B.A., Malone College, 1986; M.A., Ph.D., Case Western Reserve University, 1989, 1992.	2003
<b>Michael D. True</b> , <i>Director, Internship Center</i> B.S., Lancaster Bible College, 1979; M.Div., Trinity Evangelical Divinity School, 1984.	1991
<b>Judy Diane Walterson</b> , <i>Interim Internship Coordinator, MCPC</i> B.S.W., Eastern University, 1986; M.A.R., Westminster Theological Seminary, 2000.	
<b>Carrie D. Widdowson</b> , <i>Associate Registrar</i> B.S., Indiana University of Pennsylvania, 1989; M.Ed., The Pennsylvania State University, 2003.	2012

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## Term-Tenure Track Faculty

<b>Edward T. Arke</b> , <i>Professor of Communication; Faculty Director, Media Lab</i> B.A., M.S., Shippensburg University, 1984, 1992; Ed.D., Duquesne University, 2005.	1997
<b>Sharon L. Baker</b> , <i>Associate Professor of Theology and Religion;</i> Graduate Diploma in Theology, Southwestern Baptist Theological Seminary, 1997; M.Th., Texas Christian University, 1999; Ph.D., Southern Methodist University, 2006. Messiah College Scholar Chair, 2011-2013	2005
<b>Joseph C. Barnes</b> , <i>Associate Professor of Education; Supervisor of Student Teachers</i> B.S., Roberts Wesleyan College, 1969; M.Ed., Seattle Pacific University, 1973; Ph.D., Pennsylvania State University, 1978.	1991
<b>Heather H. Barto</b> , <i>Assistant Professor of Counseling; School Counseling Coordinator</i> B.S., James Madison University, 1994; M.S., Johns Hopkins University, 1996; Certificate of Advanced Study, Johns Hopkins University, 2000; Ph.D., Virginia Polytechnic Institute and State University, 2011.	2010
<b>John A. Beaney</b> , <i>Professor of Modern Languages; Chair, Department of Modern Languages</i> B.A., Olivet Nazarene University, 1978; M.A., Ph.D., Purdue University, 1982, 1988; Justus-Liebig-Universität Gießen; Universität Leipzig; Philipps-Universität Marburg; Universidad de Castilla-La Mancha; Université d'Orléans; Universidad Complutense de Madrid, Universität Wien.	1987
<b>John I. Bechtold</b> , <i>Professor of Psychology; Chair, Department of Psychology</i> B.A., Wheaton College, 1980; M.S., Ph.D., Kansas State University, 1983, 1986, 1990.	1988
<b>Lois Beck</b> , <i>Associate Professor of French and Communication</i> A.B., Gettysburg College, 1961; M.A., Middlebury College, 1967; Université de Grenoble; Université de Paris; M.A., Temple University, 1981.	1968
<b>Sheri L. Boyce</b> , <i>Professor of Biology; Chair, Department of Biological Sciences; Chair, Pre-Health Professions Committee/Allied Health Advising</i> B.S., Messiah College, 1992; Ph.D., The Ohio State University, 1999.	1999
<b>Erin F. Boyd-Soisson</b> , <i>Associate Professor of Human Development and Family Science; Director of Academic Advising</i> B.S., The University of Pittsburgh, 1995; M.A., Ph.D., The University of Texas at Austin, 1999, 2002.	2002
<b>Carol A. Buckley</b> , <i>Assistant Professor of Math Curriculum Climate and Instruction; Supervisor of Student Teachers</i> B.S., M. Ed., Shippensburg University, 2003, 2007; ABD, Immaculata University.	2013
<b>Melinda S. Burchard</b> , <i>Assistant Professor of Special Education</i> B.A., The College of William and Mary, 1985; M.Ed., James Madison University, 2002; Ph.D., George Mason University, 2010.	2011
<b>Susanna Bede Caroselli</b> , <i>Professor of Art History</i> A.B., Brown University, 1969; M.A., Ph.D., Johns Hopkins University, 1972, 1980; Messiah College Scholar Chair, 2007-2009.	1996
<b>Kelly A. Cheeseman</b> , <i>Associate Professor of Criminal Justice; Chair, Department of Sociology, Anthropology and Criminal Justice</i> B.S., Youngstown State University, 1997; M.A., Ph.D., Sam Houston State University, 1999, 2006.	2010
<b>Thomas J. Chilcote</b> , <i>Associate Professor of Accounting</i> B.S., Ithaca College, 1976; M.B.A., Cleveland State University, 1979; C.P.A., Ohio, 1984, Pennsylvania, 1990; Chartered Mutual Fund Counselor, 1996; M.A., Liberty University, 2010.	1987
<b>Fabrizio Cilento</b> , <i>Assistant Professor of Communication</i> B.A., M. A., University of Florence, 2003; M.A., University of Washington, 2005; Ph.D. University of Washington, 2010.	2010
<b>Leah K. Clarke</b> , <i>Assistant Professor of Counseling; Mental Health Coordinator</i> B.A., The College of William & Mary, 2000; M.S., University of North Carolina at Greensboro, 2004; Ph.D., University of North Carolina at Greensboro, 2009.	2010
<b>Edward R. Cohn</b> , <i>Associate Professor of Theatre</i> B.A., State University of New York College at Plattsburgh, 1987; M.A., New York University, 1993; Ph.D., Bowling Green State University, 2000.	2001



<b>Robin A. Collins</b> , <i>Professor of Philosophy; Chair, Department of Philosophy; Messiah College Distinguished Professor, 2012-2017</i> B.A., B.S., Washington State University, 1984; Ph.D., University of Notre Dame, 1993; Postdoctoral Fellowship in Philosophy of Science, Northwestern University, 1993-1994; Messiah College Scholar Chair, 1999-2000; Pew Evangelical Scholarship, 2000-2001; Postdoctoral Research Fellowship, University of Notre Dame, 2003.	1994
<b>Jean Thompson Corey</b> , <i>Associate Professor of English; Director, Center for Public Humanities;</i> B.S., Vanderbilt University, 1979; Teacher Certification, Gordon College, 1985; M.A., Duke University, 1989; D.A., Middle Tennessee State University, 2000.	2006
<b>Rachel A. Cornacchio</b> , <i>Associate Professor of Music Education; Supervisor of Student Teachers</i> Bachelor of Music, Nyack College, 1998; Master of Music, Florida State University College of Music, 2002; Ph.D., University of Oregon, 2008.	2008
<b>Michael R. Cosby</b> , <i>Professor of New Testament; Messiah College Scholar Chair, 2012-2014</i> B.S., University of Montana, 1972; M.A., Western Kentucky University, 1980; Ph.D., Emory University, 1985. C. N. Hostetter, Jr. Chair of Religious Studies, 2001-2003. Messiah College Scholar Chair, 2004-2006 and Distinguished Professor, 2007-2012.	1997
<b>Richard D. Crane</b> , <i>Associate Professor of Theology</i> B.A., Samford University, 1984; M.Div., The Southern Baptist Theological Seminary, 1989; Ph.D., Marquette University, 2000.	2002
<b>Henry A. Danso</b> , <i>Associate Professor of Psychology</i> B.A. (Hons.), University of Ghana, 1992; M.A., Wilfrid Laurier University, 1996; Ph.D., The University of Western Ontario, 2001.	2009
<b>Edward B. Davis</b> , <i>Professor of the History of Science; Messiah College Distinguished Professor, 2013-2018</i> B.S., Drexel University, 1975; M.A., Ph.D., Indiana University, 1981, 1984; Messiah College Scholar Chair, 1998-1999; and Distinguished Professor, 2002-2012.	1985
<b>Carlos M. Del Rio</b> , <i>Assistant Professor of Counseling</i> B.A., University of St. Thomas, 1993; M.S.Ed., Ph.D., Southern Illinois University Carbondale, 2001, 2007.	2013
<b>Timothy D. Dixon</b> , <i>Professor of Music; Director of Orchestral Activities; Assistant Chair, Department of Music; Supervisor of Student Teachers</i> B.A., B.M., Miami University, 1995, 1998; M.M., Michigan State University, 1997; D.M.A. University of Iowa, 2002.	2002
<b>Jan E. Dormer</b> , <i>Assistant Professor of TESOL</i> B.A., Asbury College, 1983; M.A., Ball State University, 1986; Ed.D., University of Toronto, 2006.	2012
<b>Jennifer J. Dose</b> , <i>Professor of Management; Co-Chair, Department of Management and Business;</i> <i>The Harry R. Hitchcock Chair of Business and Management, 2012-2015</i> B.A., Wittenberg University, 1989; M.A., Ph.D., The Ohio State University, 1991, 1995; The Harry R. Hitchcock Chair of Business and Management, 2003-2005.	2000
<b>Crystal L. Downing</b> , <i>Professor of English and Film Studies; Messiah College Distinguished Professor, 2012-2017</i> B.A., Westmont College; M.A., Ph.D., University of California at Santa Barbara, 1982, 1986; Messiah College Scholar Chair, 2001-2003, 2008-2010, 2011-2012.	1994
<b>David A. Dzaka</b> , <i>Associate Professor of English; Director, Writing Center</i> B.A., Dip.Ed., University of Cape Coast, Ghana, 1989; M. Phil., University of Ghana, 1994; Ph.D., University of Hawaii, 2001.	2001-2004, 2006
<b>L. Marlin Eby</b> , <i>Professor of Mathematics and Statistics</i> B.A., Millersville University, 1973; M.Stat., Ph.D., University of Florida, 1975, 1978.	1985
<b>Gary Emberger</b> , <i>Professor of Biology</i> B.S., M.S., Pennsylvania State University, 1975, 1977; Ph.D., North Carolina State University, 1981.	1981
<b>Jeffrey S. Erikson</b> , <i>Assistant Professor of Biology and Environmental Science</i> B.S., The Pennsylvania State University, 1990; M.S., Shippensburg University, 1996; M.E.P.C., The Pennsylvania State University, 2002.	1997
<b>Patrice R. Ewoldt</b> , <i>Assistant Professor of Music</i> B.A., University of Northern Iowa, M.M., The Cleveland Institute of Music, D.M.A., University of Maryland.	2011
<b>John Fea</b> , <i>Professor of American History; Chair, Department of History</i> B.S., Philadelphia Biblical University, 1988; M.Div., Trinity Evangelical Divinity School, 1992; M.A., Trinity International University, 1992; Ph.D., State University of New York at Stony Brook, 1999; Messiah College Scholar Chair, 2005-2007.	2002
<b>Daniel M. Finch</b> , <i>Associate Professor of Art</i> B.F.A., Augusta State University, 1995; M.F.A., The University of Georgia, 2001.	2002
<b>Randall K. Fish</b> , <i>Professor of Electrical Engineering; Chair, Department of Engineering</i> B.S. Eastern Nazarene College, 1979; B.S. Boston University, 1980; M.S., Boston University, 1982; Ph.D., University of Washington, 2001.	2008
<b>Jennifer L. Fisler</b> , <i>Associate Professor of Education; Director of Teacher Education Program; Director of Academic Assessment</i> B.A., Messiah College, 1994; M.Ed., D.Ed., Rutgers University, 1997, 2002.	2003
<b>Eric M. Forst</b> , <i>Assistant Professor of Music</i> BMUS, The University of Georgia, 2003, M.M., The University of Kansas, 2005.	2013

<b>Christine A. Forsythe</b> , <i>Professor of Art; Chair, Department of Visual Arts/Master of Arts in Art Education</i> B.A., Indiana University of Pennsylvania, 1977; M.F.A., Rochester Institute of Technology, 1982.	1982
<b>Donald J. Forsythe</b> , <i>Professor of Art</i> B.S., Indiana University of Pennsylvania, 1977; M.F.A., Rochester Institute of Technology, 1979; Messiah College Distinguished Professor, 2003-2013.	1982
<b>David K. Foster</b> , <i>Professor of Biology and Environmental Science</i> B.S., Eastern College, 1990; M.S., Ph.D., University of Wisconsin-Madison, 1993, 1998.	1997
<b>Milton C. Gaither</b> , <i>Professor of Education</i> B.A., Wheaton College, 1993; M.A.R., Yale Divinity School, 1996; Ph.D., Indiana University, 2000.	2000
<b>Stephen E. Gallaher</b> , <i>Associate Professor of Christian Ministries</i> B.A., Messiah College, 1978; M.Div., Lancaster Theological Seminary, 1981; D.Min., Perkins School of Theology, 1996.	2004
<b>Bradley J. Genevro</b> , <i>Associate Professor of Music; Program Coordinator, Master of Music in Conducting; Director of Bands</i> B.S., M.A., Indiana University of Pennsylvania, 1989, 1996; D.M.A., University of North Texas, 2006.	2004
<b>Brenton E. Good</b> , <i>Assistant Professor of Art</i> B.A., Messiah College, 2001; M.A., M.F.A., University of Dallas, 2003, 2005.	2013
<b>Todd A. Goranson</b> , <i>Associate Professor of Music</i> BMP, MM, University of Idaho, 1997, 1999; DMA, West Virginia University, 2006.	2012
<b>James D. Gustafson</b> , <i>Associate Professor of Health and Human Performance</i> B.S., Wheaton College, 1969; M.S., Northern Illinois University, 1971; Ed.D., Temple University, 1986; Eastern Washington University; CTRS, 1996-2001.	1973
<b>Jodie L. Haak</b> , <i>Associate Professor of Exercise Science; Chair, Department of Health and Human Performance, 2012-2014</i> B.A., Messiah College, 1999; Ph.D., University of Iowa, 2008	2008
<b>David J. Hagenbuch</b> , <i>Associate Professor of Marketing; Co-Chair, Department of Management and Business</i> B.S., Messiah College, 1989; M.B.A., Temple University, 1991; D.B.A., Anderson University, 2006; Hitchcock Chair of Business and Management, 2007-2009.	2000
<b>Raeann R. Hamon</b> , <i>Professor of Family Science and Gerontology; Chair, Department of Human Development and Family Science, 2012-2016; Messiah College Distinguished Professor, 2011-2016</i> B.A., Messiah College, 1983; M.S., Ph.D., Virginia Polytechnic Institute and State University, 1985, 1988; Graduate Certificate in Gerontology, 1986; Certified Family Life Educator, 1997; Messiah College Scholar Chair 2003-2005 and Distinguished Professor, 2005-2011.	1986
<b>Michael A. Harcrow</b> , <i>Associate Professor of Music</i> B.M.Ed., West Texas State University, 1983; M.M., University of Miami, 1988; D.M.A., University of North Texas, 2007.	2006
<b>Angela C. Hare</b> , <i>Professor of Mathematics; Chair, Department of Information and Mathematical Sciences</i> B.A., Wheaton College, 1990; M.S., Drexel University, 1993; Ph.D., American University, 1996.	1996
<b>John C. Harles</b> , <i>Professor of Politics; Messiah College Distinguished Professor, 2009-2014; Student Scholarship Advisor</i> B.A., Wheaton College, 1979; M.Phil., D.Phil., Oxford University, 1981, 1989. Messiah College Scholar Chair, 2000-2002; 2008-2009.	1984
<b>John F. Harms</b> , <i>Associate Professor of Biological Sciences</i> A.S., Jamestown Community College, 1994; B.S., State University of New York, College at Fredonia, 1996; Ph.D., Pennsylvania State University, College of Medicine, 2002.	2006
<b>Niklas Hellgren</b> , <i>Assistant Professor of Physics</i> M.S., Ph.D., Linköping University, 1995, 1999.	2010
<b>Kathy T. Hettinga</b> , <i>Professor of Art</i> B.F.A., Calvin College, 1978; M.F.A., Colorado State University, 1985; Adams State College; Tamarind Institute; Colorado University; Visual Studies Workshop; SIGGRAPH; Institute of Sacred Music, Worship and the Arts; Henry Luce III Center for Arts and Religion, Wesley Theological Seminary; Messiah College Scholar Chair, 1998-2000 and Distinguished Professor, 2004-2009.	1988
<b>Mary L. Holloway</b> , <i>Assistant Professor of Communication</i> B.A., Clarion State University, 1976; M.A., Western Kentucky University, 1982.	1982
<b>Joseph P. Huffman</b> , <i>Professor of European History; Messiah College Distinguished Professor, 2010-2015</i> B.A., Seattle Pacific University, 1982; M.A., Western Michigan University, 1984; M.A., Ph.D., University of California, Los Angeles, 1985, 1991; Messiah College Scholar Chair, 2001-2002.	1994
<b>Douglas Jacobsen</b> , <i>Professor of Church History and Theology; Messiah College Distinguished Professor, 2012-2016</i> Coordinator, Christian Scholarship and College Identity B.A., Wheaton College, 1973; M.A., Ph.D., The University of Chicago, 1977, 1983; Messiah College Distinguished Professor, 2001-2011.	1984
<b>Rhonda Hustedt Jacobsen</b> , <i>Professor of Psychology; Director of Faculty Development</i> B.A., Wheaton College, 1972; M.Ed., University of Illinois, 1975; Ed.D., Temple University, 1988; Lancaster Theological Seminary.	1984

<b>Tara S. Jankouskas</b> , <i>Assistant Professor of Nursing</i> B.S.N., Bloomsburg University of Pennsylvania, 1984; M.S.N., University of Texas at Austin, 1991. Ph.D., The Pennsylvania State University, 2010.	2009
<b>Charles D. Jantzi</b> , <i>Associate Professor of Psychology</i> B.A., Cedarville College, 1986; M.A., University of Dayton, 1988; Psy.D., Wright State University, 1994.	2004
<b>Paul A. Johns</b> , <i>Instructor of Human Development and Family Science</i> B.A., Messiah College, 1996; M.A., Bethel Theological Seminary, 2001; Certified Family Life Educator, 2006; Licensed Marriage and Family Therapist, 2007.	2005-2006, 2007
<b>Roger D. Johnson</b> , <i>Professor of Economics</i> B.A., North Park College, 1969; M.A., Northern Illinois University, 1974; Ph.D., Northern Illinois University, 1980.	1984
<b>Kathleen M. Johnston</b> , <i>Assistant Professor of Accounting</i> B.A., Lycoming College; MBA, Lebanon Valley College, CPA, Pennsylvania.	2013
<b>David E. Kasperek</b> , <i>Associate Professor of Graphic Design</i> B.A., Seton Hill College, 1995; M.G.D., North Carolina State University School of Design, 1998.	2000
<b>H. Scott Kieffer</b> , <i>Professor of Health and Exercise Physiology; Assistant Chair, Department of Health and Human Performance, 2012-2014</i> B.S./B.A., Davis and Elkins College, 1985; M.S., University of Nebraska-Kearney, 1987; Ed.D., University of South Dakota, 1998.	1999
<b>Robert A. Kilmer</b> , <i>Associate Professor of Business Information Systems and Management</i> B.S., Indiana University of Pennsylvania, 1976; M.S., Naval Postgraduate School, 1986; Ph.D., University of Pittsburgh, 1994.	1998
<b>Carolyn L. Kreamer</b> , <i>Professor of Nursing; Chair, Department of Nursing, 1999-2014</i> Diploma, York Hospital School of Nursing, 1969; B.S., Pennsylvania State University, 1975; M.S., University of Maryland, 1980; Ph.D., University of Texas at Austin, 1989.	1986
<b>James A. Krimmel</b> , <i>Associate Professor of Accounting</i> B.S., Messiah College, 1981; C.P.A., 1984; M.B.A., Shippensburg University, 1990; Certified Fraud Examiner (CFE), 2002.	1986
<b>Abaz Kryemadhi</b> , <i>Assistant Professor of Mathematical Sciences</i> B.S., University of Tirana, 1996; Diplom Physik, University of Siegen, Germany, 1998; M.S., Indiana University, 2000; Ph.D., Indiana University, 2004.	2006
<b>Vincent A. LaFrance</b> , <i>Professor of Economics; Managing Director, International Business Institute</i> B.S., University of Delaware, 1972; Ph.D., Pennsylvania State University, 1985.	1988
<b>James B. LaGrand</b> , <i>Professor of American History; Director of the Core Course</i> B.A., Calvin College, 1990; M.A., Ph.D., Indiana University, 1992, 1997. Messiah College Scholar Chair, 2000-2002.	1997
<b>Larry M. Lake</b> , <i>Associate Professor of Writing; Director of Writing Across the Curriculum</i> B.A., Wheaton College, 1974; M.A., West Chester State College, 1982; Ph.D., University of Pennsylvania, 1989.	1984
<b>Robin M. Lauermann</b> , <i>Professor of Politics; Assistant Dean of General Education and Common Learning</i> B.A., M.A., Ph.D., SUNY Buffalo, 1993, 1995, 2001.	2002
<b>Valerie A. Lemmon</b> , <i>Assistant Professor of Psychology</i> B.A., Gettysburg College, 1985; M.S., Millersville University, 1992; M.S., Psy.D., Philadelphia College of Osteopathic Medicine, 2004.	2007
<b>Matthew D. Lewis</b> , <i>Assistant Professor of Health and Human Performance; Athletic Trainer</i> B.A., Asbury University; M.S., University of Kentucky; ABD University of Kentucky.	2013
<b>Erik D. Lindquist</b> , <i>Professor of Biology and Environmental Science</i> B.S., Southern Illinois University, 1991; M.S., Ph.D., The Ohio State University, 1995, 1997.	2003
<b>Heidi R. Lutz</b> , <i>Associate Professor of Nursing</i> Diploma, Lancaster General Hospital School of Nursing, 1994; B.S.N., Pennsylvania State University, 2000; M.S.N., Widener University, 2003; Ph.D., Widener University, 2008.	2007-2008, 2010
<b>James V. Makowski</b> , <i>Professor of Biology</i> B.A., Messiah College, 1976; M.A., West Chester State University, 1980; Ph.D., University of Delaware, 1991.	1981
<b>Sean C. Matthews</b> , <i>Assistant Professor of Art</i> B.F.A., Appalachian State University, 2002; M.F.A., Towson University, 2006.	2010
<b>Nancy D. McCown</b> , <i>Associate Professor of Communication; Chair, Department of Communication 2011-2015</i> B.A., Messiah College, 1985; M.J., Temple University, 1994; Ph.D., University of Maryland, 2008.	2007
<b>J. E. McDermond</b> , <i>Professor of Christian Ministry and Spirituality; Fitness for Ministry Coordinator</i> B.A., Messiah College, 1976; M.Div., Mennonite Biblical Seminary, 1979; M.Litt., University of Durham, 1989; University of Tübingen; Pittsburgh Theological Seminary; Gettysburg Lutheran Seminary; D.Min., Pittsburgh Theological Seminary, 1998; The University of Glasgow; Hostetter Chair of Religious Studies, 2007-2009.	1987

<b>Jennifer F. McFarlane-Harris</b> , <i>Assistant Professor of English</i> B.A., University of Redlands, 2002; M.A., Ph.D., University of Michigan, 2003, 2010.	2011
<b>Carol Z. A. McGinnis</b> , <i>Assistant Professor of Counseling</i> B.S., M.S., Ph.D., Loyola University, 2002, 2006, 2010.	2012
<b>Jon D. Melton</b> , <i>Associate Professor of Chemistry</i> B.A., Cornell College, 1980; Ph.D., Iowa State University, 1986.	1989
<b>Obed Mfum-Mensah</b> , <i>Associate Professor of Education</i> B.A., Andrews University, 1995; M.Ed., University of Western Ontario, 1999; Ph.D., University of Toronto, 2003.	2005
<b>Bernardo A. Michael</b> , <i>Professor of History; Special Assistant to the President and Provost for Diversity Affairs</i> B.A., M.A., St. Stephen's College, University of Delhi, India, 1984, 1986; Ph.D., University of Hawaii, 2001; Messiah College Scholar Chair, 2007-2008, 2009-2010.	2001
<b>Caleb D. Miller</b> , <i>Professor of Philosophy</i> B.A., Drake University, 1980; M.A.T.S., Gordon-Conwell Theological Seminary, 1983; Ph.D., University of Notre Dame, 1991.	1993
<b>Douglas K. Miller</b> , <i>Professor of Health and Exercise Science; Wellness Director</i> B.A., Manchester College, 1976; M.A., University of Northern Colorado, 1979; Ph.D., University of Maryland, 1992.	1979
<b>Deedre Nancy Cher Mitchell</b> , <i>Assistant Professor of Counseling</i> B.A., Shippensburg University, 2001; M. Educ., Loyola University MD, 2004; Ph.D., Regent University, 2012.	2012
<b>Donald A. Murk</b> , <i>Professor of Early Childhood Education; Chair, Department of Education, 2012-2016; Fellow, Ernest L. Boyer Center, 2012-2014</i> B.S., Messiah College, 1979; M.A., Pennsylvania State University 1984; Ph.D., University of Maryland, 1992.	1981
<b>Retta K. Murray</b> , <i>Assistant Professor of Health and Human Performance; Athletic Trainer</i> B.S., M.Ed., A.T.C., Pennsylvania State University, 1981, 1987.	1987
<b>Lawrence M. Mylin</b> , <i>Professor of Biology</i> B.A./B.A., Messiah College, 1980; Ph.D., The Pennsylvania State University, 1990.	1999
<b>Brian A. Nejme</b> , <i>Professor of Business Information Systems and Entrepreneurship</i> B.S., Allegheny College, 1983; M.S., Purdue University, 1985.	2002
<b>Alison R. Noble</b> , <i>Assistant Professor of Chemistry</i> B.S., Westmont College, 1997; Ph.D., University of Illinois Urbana-Champaign, 2002.	2010
<b>Connie Harris Ostwald</b> , <i>Associate Professor of Economics and Development</i> B.A., University of California, 1977; M.B.E., University of Colorado, 1979; Ph.D., University of Denver, 2002.	2011
<b>David R. Owen</b> , <i>Associate Professor of Computer Science</i> B.S., Messiah College, 1997; M.S., West Virginia University, 2002; Ph.D., West Virginia University, 2007	2007
<b>Jenell Williams Paris</b> , <i>Professor of Sociology and Anthropology</i> B.A., Bethel University, 1994; Ph.D., American University, 1998; Messiah College Scholar Chair, 2010-2012.	2007
<b>Nancy J. Patrick</b> , <i>Associate Professor of Special Education; Director, Graduate Program in Education</i> B.A., Texas A & I University, 1977; M.Ed., University of North Florida, 1981; Ph.D., The Pennsylvania State University, 1992.	2002
<b>David K. Pettegrew</b> , <i>Associate Professor of History</i> B.A., Wright State University, 1998; M.A., Ph.D., The Ohio State University, 2000, 2006; Messiah College Scholar Chair, 2009-2011.	2006
<b>Douglas C. Phillippy</b> , <i>Associate Professor of Mathematics</i> B.A., Shippensburg University, 1983; M.S., Ph.D., Lehigh University, 1986, 1991.	1993
<b>George F. Pickens</b> , <i>Professor of Theology and Mission</i> B.A., Kentucky Christian College, 1980; M.A., The Ohio University, 1984; Ph.D., The University of Birmingham, England, 1997.	2005
<b>Edward C. Polson</b> , <i>Assistant Professor of Sociology and Anthropology</i> B.A., Mississippi College, 2000; M.Div., M.S.W., M.A., Ph.D., Baylor University, 2003, 2003, 2006, 2009.	2011
<b>Amy B. Porto</b> , <i>Associate Professor of Nutrition and Dietetics</i> B.S., Muhlenberg College, 1997; Ph.D., The Pennsylvania State University, 2004.	2004
<b>Emerson B. Powery</b> , <i>Professor of Biblical Studies</i> A.A., Miami Dade Community College, 1986; B.A., Lee University, 1989; M. Div., Princeton Theological Seminary, 1992; Ph.D., Duke University, 1999. Hostetter Chair of Religious Studies, 2009-2011.	2008
<b>Alberto Madureira Poxes</b> , <i>Assistant Professor of Sport Management</i> B.A., African Bible College, 1996; M.S., Ph.D., University of Southern Mississippi, 2000, 2004.	2012

<b>Donald G. Pratt</b> , <i>Professor of Engineering</i> B.S., Case Western Reserve University, 1978; M.E., Ph.D., Cornell University, 1989, 1992; Moody Bible Institute, Clarence W. Hottel Chair of Engineering, 2001- 2003; 2005-2007; 2009-2011.	1993
<b>Margaret E. Ramey</b> , <i>Assistant Professor of Biblical and Religious Studies</i> B.A., Furman University, 2000; M.Div., Baylor University, George W. Truett Theological Seminary, 2005; Ph.D., University of St. Andrews, 2011.	2009
<b>Anne M. Reeve</b> , <i>Associate Professor of Chemistry</i> B.S., Clemson University, 1983; Ph.D., The Johns Hopkins University, 1992.	2007
<b>Paul M. Rego</b> , <i>Associate Professor of Politics; Chair, Department of Politics and International Relations</i> B.A., Millersville University, 2001; M.A., Ph.D., University of Massachusetts-Amherst, 2005, 2006.	2007
<b>J. Roberto Reyes</b> , <i>Professor of Human Development and Family Science; Fellow, Ernest L. Boyer Center, 2012-2014.</i> B.A., Oral Roberts University, 1989; M.Div., Ph.D., Fuller Theological Seminary, 1992, 1995. Certified Family Life Educator, 1997; Clinical Member, American Association of Marriage and Family Therapy, 1996.	1996–2007; 2012
<b>Gladys Alicia Robalino</b> , <i>Associate Professor of Spanish</i> A.A., American Junior College, 1989; B.A., Catholic University, 1999; M.A., Universidad Tecnologica Equinoccial, 2001; M.A., McGill University, 2004; Ph.D., Vanderbilt University, 2008.	2008
<b>Sheila K. Rodriguez</b> , <i>Associate Professor of Spanish</i> B.A., Earlham College, 1992; M.A., Ph.D, Temple University, 2000, 2005.	2003-2004, 2006
<b>Eugene G. Rohrbough</b> , <i>Professor of Computer Science; Computer Information Systems Coordinator</i> B.A., Millersville University of PA, 1987; B.S., Millersville University of PA, 2002; M.A., University of Texas, 1993; Ph.D., University of Texas, 1995.	1996-1997; 1998-2005; 2007
<b>Matthew S. Roth</b> , <i>Associate Professor of English; Chair, Department of English, 2012-2016</i> B.A., Houghton College, 1992; M.F.A., Wichita State University, 1996; Ph.D., University of North Texas, 2002.	2002
<b>Roseann K. Sachs</b> , <i>Professor of Chemistry; Chair, Department of Chemistry and Biochemistry, 2012-2016</i> B.A., Bethel University, 1986; Ph.D., University of Minnesota; 1993.	2003
<b>Damian G. Savarino</b> , <i>Assistant Professor of Music</i> B.M., Ithaca College, 1994; M.M., New England Conservatory of Music, 1997.	2004
<b>Richard W. Schaeffer</b> , <i>Professor of Chemistry</i> B.A., Messiah College, 1983, Ph.D., Temple University, 1992.	2004
<b>David J. Schenk</b> , <i>Associate Professor of Philosophy</i> B.A., Antioch College, 1991; Ph.D., University of Iowa, 2003.	2006
<b>Timothy W. Schoettle</b> , <i>Associate Professor of Philosophy</i> B.A., Yale University, 1990; M.A., University of Michigan, 1997; Ph.D., University of California, 2003.	2004
<b>Eric A. Seibert</b> , <i>Professor of Old Testament</i> B.A., Messiah College, 1992; M.A., M.Div., Asbury Theological Seminary, 1996; M.Phil., Ph.D., Drew University, 1999, 2002; C. N. Hostetter, Jr. Chair of Religious Studies, 2003-2005; Messiah College Scholar Chair, 2010-2012.	2000
<b>Charles R. Seitz</b> , <i>Associate Professor of Social Work; Chair, Department of Social Work, 2011-2015</i> B.A., M.S.W., University of Maryland, 1983, 1986; Ph.D., Regent University, 2006.	2000
<b>Michael J. Shin</b> , <i>Associate Professor of Biology</i> B.A., Yale University, 1994; M.S., Ph.D., New York University, 1997, 2004.	2004
<b>Kate D. Simcox</b> , <i>Associate Professor of Communication</i> B.A., Bluffton University, 2001; M.A., Ph.D., Bowling Green State University, 2002, 2005.	2005
<b>Shelly Ann Skinner</b> , <i>Assistant Professor of Christian Ministries; Program Coordinator, Master of Arts in Youth and Young Adult Ministries</i> B.A., Biola University, 1994; M.A. Talbot School of Theology, 1997; Ed.D., The Southern Baptist Theological Seminary, 2010.	2011
<b>Nathaniel Leroy Kabayama Skulstad</b> , <i>Assistant Professor of Film and Digital Media</i> B.A., Trinity Western University, 2005; MFA, York University, 2013.	2013
<b>Brian A. Smith</b> , <i>Associate Professor of Hebrew Bible; Chair, Department of Biblical and Religious Studies, 2010-2014; Teaching Pastor, Office of College Ministries</i> B.A., Taylor University, 1988; M.Div., Gordon-Conwell Theological Seminary, 1994; M.Phil., Ph.D., Hebrew Union College-Jewish Institute of Religion, 1999, 2007.	2001
<b>Samuel O. Smith</b> , <i>Professor of English</i> B.S., Philadelphia College of Bible, 1982; M.A., Shippensburg University, 1983; Ph.D., University of Delaware, 1989; Folger Institute for Renaissance and Eighteenth-Century Studies; Folger Institute for the History of British Political Thought; University of Chicago.	1989
<b>Valerie R. Smith</b> , <i>Professor of Theatre</i> B.S., Taylor University, 1990; M.A., Miami University (Ohio), 1996; Ph.D., Tufts University, 2005.	2000

<b>Thomas S. Soerens</b> , <i>Associate Professor of Engineering</i> B.S.C.E., University of Wisconsin, 1987. M.S., Ph.D., University of Oklahoma, 1991, 1995.	2013
<b>Anne Marie Stoner-Eby</b> , <i>Associate Professor of History Coordinator, Peace and Conflict Studies Program</i> B.A., Eastern Mennonite University, 1989; M.A., Temple University, 1996; Ph.D., University of Pennsylvania, 2003.	2003
<b>William J. Stowman</b> , <i>Professor of Music; Chair, Department of Music; Director of Instrumental Studies; Department Chair, Graduate Program in Conducting</i> B.S., Indiana University of Pennsylvania, 1985; M.M.E., M.A., Eastern Kentucky University, 1993, 1994; D.M.A., University of North Texas, Denton, 1998.	1996
<b>Brian D. Swartz</b> , <i>Assistant Professor of Engineering</i> B.S., M.S., Ph.D., The Pennsylvania State University, 2005, 2007, 2010.	2013
<b>Jennifer L. Thomson</b> , <i>Assistant Professor of Biopsychology</i> B.S., Rider University, 2003. Ph.D., University of North Carolina at Chapel Hill, 2009.	2012
<b>Wanda E. Thuma-McDermond</b> , <i>Associate Professor of Nursing</i> B.A., B.S.N., Goshen College, 1975, 1979; M.S., Indiana Wesleyan University, 1992; Ph.D., Widener University, 2011.	2003
<b>Hannah Suzanne Tims</b> , <i>Assistant Professor of Chemistry</i> B.S., Bethel University (MN), 2002; Ph.D., Northwestern University, 2007.	2009
<b>Harold R. Underwood</b> , <i>Associate Professor of Engineering and Physics</i> B.A., Wheaton College, 1984; B.S., M.S., Ph.D., University of Illinois, 1984, 1986, 1990.	1992
<b>David T. Vader</b> , <i>Professor of Engineering; Director, Collaboratory for Strategic Partnerships and Applied Research</i> B.S.M.E., Texas A & M University, 1982; M.S.M.E., Ph.D., Purdue University, 1985, 1988. Hottel Chair of Engineering, 1999-2001.	1993
<b>Timothy J. Van Dyke</b> , <i>Associate Professor of Engineering</i> B.S., Calvin College, 1983; B.S., M.S., M.S., Ph.D., University of Michigan, 1983, 1984, 1989, 1995.	2001
<b>Anita N. Voelker</b> , <i>Associate Professor of Education</i> B.S., Frostburg State University, 1973; M.S., Johns Hopkins University, 1976; Ph.D., University of Maryland, 2006.	1993
<b>Helen L. Walker</b> , <i>Professor of Writing</i> B.A., Huntington College, 1967; M.A., Eastern Washington State University, 1972; D.A., Illinois State University, 1987.	1995
<b>D. Scott Weaver</b> , <i>Assistant Professor of Computer Science</i> B.A., Messiah College, 1985; M.S., Shippensburg University, 1998; D.P.S., Pace University, 2010	2002
<b>David L. Weaver-Zercher</b> , <i>Professor of American Religious History</i> B.A., Messiah College, 1983; M.Div., Eastern Baptist Theological Seminary, 1987; Ph.D., The University of North Carolina at Chapel Hill, 1997.	1997
<b>Cynthia A. Wells</b> , <i>Assistant Professor of Higher Education; Director, Ernest L. Boyer Center; Fellow, Ernest L. Boyer Center, 2012-2014</i> <i>Program Director, Graduate Program in Higher Education</i> A.B., Occidental College, 1988; M.S., Wright State University, 1992; Ph.D., The Ohio State University, 2003.	1998
<b>Spurgeon R. Wentzell</b> , <i>Professor of Health and Physical Education; Supervisor of Student Teachers</i> B.S., M.S., Springfield College, 1966, 1967; Ed.D., Boston University, 1986.	1989
<b>Kathryn M. Whiteley</b> , <i>Assistant Professor of Criminal Justice</i> Master of Business, Ph.D., Queensland University of Technology, 2000, 2012.	2013
<b>Tymberley A. Whitesel</b> , <i>Associate Professor of Theatre; Chair, Department of Theatre and Dance, 2008-2012</i> B.A. Goshen College, 1993; MFA, Illinois State University, 1998	2004
<b>Timothy B. Whitmoyer</b> , <i>Associate Professor of Engineering</i> B.S., M.S., Ph.D., West Virginia University, 1984, 1986, 1991.	1990
<b>Lamarr C. Widmer</b> , <i>Professor of Mathematics</i> B.A., M.S., Ph.D., University of Iowa, 1972, 1984, 1988.	1988
<b>Samuel P. Wilcock</b> , <i>Associate Professor of Mathematics and Statistics</i> B.A., Messiah College, 1996, M.S., Ph.D., Virginia Polytechnic Institute and State University, 1997, 2001.	2001
<b>Norman J. Wilson</b> , <i>Professor of History</i> B.A. in English, B.A. in French, University of Wisconsin-Madison, 1981, 1985; M.A., Ph.D., U.C.L.A., 1987, 1994.	2003
<b>Kathryn A. Witt</b> , <i>Associate Professor of Dietetics; Chair, Department of Nutrition and Dietetics; Director, Didactic Program in Dietetics</i> B.A., Hope College, 1981; M.S., Purdue University, 1983; Ph.D., The Ohio State University, 1989.	1991
<b>Anne (Nancy) B. Woods</b> , <i>Associate Professor of Nursing</i> Diploma, Thomas Jefferson University Hospital, 1975; BSN, University of Hawaii, 1981; MSN, University of Pennsylvania, 1986; MPH, University of Hawaii, 1997; Post-MSN, Ursuline College, 2003; Ph.D., Johns Hopkins University, 2004.	2008

<b>Dwayne Cowles Wright</b> , <i>Associate Professor of Education</i> B.S., M. Ed., Kutztown University, 1995, 1997; Ph.D., The University of Georgia, 2005	2013
<b>Maude S. Yacapsin</b> , <i>Assistant Professor of Special Education</i> B.A., M.S., Bloomsburg University, 1988, 1992; Ed.D., University of Nebraska, 2006.	2011
<b>Lijuan (Stella) Ye</b> , <i>Assistant Professor of Mandarin Chinese</i> B.A., Zhejiang University of Technology, 2003; M.A., University of Alabama, 2006, Ph.D., Georgia State University, 2011.	2011
<b>Kim D. Yúnez</b> , <i>Associate Professor of Spanish</i> B.A., Houghton College, 1986; M.A., Ph.D., Temple University, 1990, 1999.	1990
<b>Michael A. Zigarelli</b> , <i>Professor of Leadership and Strategy</i> B.A., Lafayette College, 1987; M.A., Cornell University, 1989; Ph.D., Rutgers University, 1994	2008
<b>Louann B. Zinsmeister</b> , <i>Associate Professor of Nursing; Program Coordinator, Graduate Program in Nursing</i> B.S.N., Millersville University, 1984; M.S., University of Delaware, 1985; Ph.D., Widener University, 2004; NLN Certified Nurse Educator, CNE, 2011.	1994

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## Clinical Track

<b>Marti G. Derr</b> , <i>Associate Professor of Nursing (Clinical Track)</i> B.S.N., Eastern Mennonite University, 1981; M.S., University of Kentucky, 1985; M.S., Goldsmiths College, University of London, 1992, M.S.N., University of Maryland, 2004.	1996
<b>Michelle D. George</b> , <i>Associate Professor of Social Work (Clinical Track); Coordinator, Social Work Field Placements</i> B.A., Messiah College, 1988; M.S.W., Temple University, 1994.	2008
<b>Pamela J. Linstedt</b> , <i>Associate Professor of Nursing (Clinical Track)</i> B.S.N., Alderson-Broaddus College, 1977; M.S.N., Indiana University, 1982.	1997
<b>Debra L. Loop</b> , <i>Associate Professor of Nursing (Clinical Track)</i> B.S.N., Liberty University, 1986; M.S.N., University of Virginia, 1987.	1995
<b>Kristen Lynne Slabaugh</b> , <i>Assistant Professor of Nursing (Clinical Track)</i> B.S., Messiah College, 2005; M.S., The Pennsylvania State University, 2010.	2011

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## Senior Lecturers

<b>Edwin (Sandy) Bush, Jr.</b> , <i>Senior Lecturer in Health and Human Performance; Director, Athletic Training Education Program; Athletic Trainer</i> B.S., Lock Haven State College, 1977; M.S., South Dakota State University, 1981.	1983
<b>Wendy L. Cheesman</b> , <i>Senior Lecturer in Health and Human Performance; Physical Therapist; Athletic Trainer</i> B.A., Messiah College, 1989; M.S., University of Rhode Island, 1995.	1996
<b>Amy E. Ginck</b> , <i>Senior Lecturer in Modern Languages</i> B.A., Messiah College, 1993; M.A., Bowling Green State University, 1995.	1998-2004; 2005
<b>M. Elaine Henderson</b> , <i>Senior Lecturer in Music</i> B.M., B.M.E., Mars Hill College, 1975; M.M., Indiana University, 1977.	2001
<b>Kristin L. Russell Mouttet</b> , <i>Senior Lecturer in Counseling, Marriage and Family Coordinator</i> B.A., Seattle Pacific University, 1995; M.S., John Brown University, 2000; Ph.D., Regent University, 2009	2012
<b>Jodi D. Noble</b> , <i>Senior Lecturer in Chemistry; Assistant Coach, Women's Basketball</i> B.A., Messiah College, 1984; M.S., Pennsylvania State University, 1992.	1994
<b>Kathleen D. Quimby</b> , <i>Senior Lecturer in Humanities; Director, Supplemental Instruction</i> B.S., Mansfield State University, 1968; M.A., The Pennsylvania State University, 1986.	1985
<b>David J. Tanis</b> , <i>Senior Lecturer in Adventure Education; Director of Adventure Programs</i> B.S., Calvin College, 1990; M.A., Geneva College, 1997; D.Ed., The Pennsylvania State University, 2012.	1997
<b>Randall S. Zwally</b> , <i>Senior Lecturer in Music</i> B.S., M.M., West Chester University, 1976, 1991; M.L.S., Clarion University, 2003.	2002

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## Lecturers

<b>Gregg M. Hurley</b> , <i>Lecturer in Dance</i> B.A., Hofstra University, 1993; M.F.A., University of Arizona School of Dance, 2010.	2013
<b>Jeremy R. Kauffman</b> , <i>Lecturer in Health and Human Performance; Head Athletic Trainer</i> B.A., Messiah College, 2003; M.S., McDaniel College, 2006.	2009

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## Artist in Residence

**Linda L. Tedford**, *Artist-in-Residence, Department of Music; Director of Choral Activities* 1997  
B.M., Covenant College, 1969; M.M., Temple University, 1973.

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## Librarians

**Elizabeth Y. Kielley**, *Librarian/Technical Services Coordinator* 1999  
B.A., Gettysburg College, 1989; M.L.S., University of Pittsburgh, 1991.

**Beth L. Mark**, *Librarian/Instruction Coordinator* 1993  
B.A., Messiah College, 1972; M.S.L.S., Shippensburg University, 1975; M.L.A., Temple University, 1998.

**Lawrie H. Merz**, *Librarian/Public Services Coordinator* 1997  
B.Mus., Houghton College, 1979; M.S.L.S., Villanova University, 1983; M.A., Syracuse University, 1996.

**Michael D. Rice**, *Librarian/Electronic Resources Coordinator* 1992  
B.A., Millersville University, 1978; M.S.L.S., Clarion University of Pennsylvania, 1984.

**Beth M. Transue**, *Librarian/Collection Development Coordinator* 2006  
B.S., Messiah College, 1993; M.S.L.S., Drexel University, 1998.

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## Cocurricular Educators

**Eleanor M. Addleman**, *Counselor/Wellness Educator*  
B.A., Wheaton College, 1980; M.S. Shippensburg University, 1986.

**David L. Brown**, *Counselor* 1998  
B.B.A., Texas Tech University, 1970; M.S.W., University of Maryland, 1984.

**Bryan E. J. Brunk**, *Head Wrestling Coach; Adjunct Instructor in Health and Human Performance* 2003  
B.A., Western New England College, 1998; M.S., University of Southern Maine, 2003.

**Jack T. Cole**, *Director of Athletics Assistant Professor of Sport Management* 1985  
B.A., Malone College, 1982; M.E., Ashland College, 1984.

**Douglas M. Curry**, *Worship Pastor* 2002  
B.A., Messiah College, 1990; M.A., Lancaster Bible College Graduate School, 2002; D.Min., Wesley Theological Seminary, 2011.

**Debra I. Danielson**, *Counselor* 1994  
B.A., Messiah College, 1978; M.A., Ashland Theological Seminary, 1981.

**Krystalyn T. Davis**, *Interim Director of Community Life, MCPC* 2013  
B.A., Messiah College, 1998; M.A., Fordham University, 2001.

**Tera M. Dent**, *Residence Director, Grantham Hall/Smith Apartments* 2013  
B.A., Calvin College, 2005; M.A., Geneva College, 2012.

**David M. Downey**, *Residence Director, Mountain View Hall/Coordinator of Upper Class Experience* 2010  
B.A., Taylor University, 2008; M.A., Taylor University, 2010.

**Timothy A. L. Ferret**, *Assistant Director of Residence Life-First Year Experience/Residence Director, Bittner Hall* 2011  
B.S., Northwestern College, 2006; M.E., Regent University, 2011.

**Dale E. Fogelsanger**, *Head Cross Country Coach; Head Track and Field Coach* 1998  
B.S., Messiah College, 1987; M.Ed., Shippensburg University, 1998.

**Chad W. Frey**, *Director of Agapé Center for Service and Learning* 2003  
B.A., Messiah College, 1996; M.A., Geneva College, 2003.

**Scott R. Frey**, *Head Coach, Women's Soccer; Adjunct Instructor in Health and Human Performance* 2000  
B.S., Messiah College, 1984; M.A., Western Maryland College, 1990.

**Eldon E. Fry**, *College Pastor* 2005  
B.A., Bartlesville Wesleyan College, 1968; M.S., Kansas State University, 1984; D.Min., Graduate Theological Foundation, 1999.

**Brooke L. Good**, *Head Field Hockey Coach; Assistant Sports Information; Adjunct Instructor in Health and Human Performance* 2010  
B.S., Messiah College, 2003.

**Heather J. Greer**, *Head Women's Lacrosse Coach; Director of Recreational Sports* 2007  
B.A., Messiah College, 2002; M.S., Virginia Commonwealth University, 2005.

**Sandra Starling Halbruner**, *Certified Registered Nurse Practitioner* 2009  
B.A., Franklin and Marshall College, 1992; B.S.N., Johns Hopkins University School of Nursing, 1996; M.S.N., The Pennsylvania State University, 1999; D.N.P., The Wilkes University, 2012.



<b>Kristin M. Hansen-Kieffer</b> , <i>Vice Provost; Dean of Students; Assistant Professor in Health and Exercise Science</i> B.S., University of Nebraska, Kearney, 1987; M.S., South Dakota State University, 1991; Ed.D., University of South Dakota, 2000.	1999
<b>Christina R. Hanson</b> , <i>Director of Career Development</i> B.A., Messiah College, 2003; M.S., Shippensburg University, 2005.	2005
<b>Josiah D. Hatfield</b> , <i>Residence Director, Naugle Hall</i> B.A., Taylor University, 2009; M.A., Taylor University, 2012.	2012
<b>Paula R. Hoffman</b> , <i>Residence Director, Witmer Hall</i> B.S., Southeastern University, 2007; M.S., Southeastern University, 2013	2013
<b>Dwayne R. Kieffer</b> , <i>Assistant Director of Career Development; Coordinator of Recruitment Services</i> B.S., Nyack College, 1989; M.S., Shippensburg University, 1997.	1997
<b>Abigail E. King</b> , <i>Residence Director, Hess/Kelly Apartments</i> B.A., Messiah College, 2009; M.A., Northeastern University, 2011	2012
<b>Rhonda L. G. King</b> , <i>Assistant Director of Residence Life/Housing</i> B.A., Eastern Mennonite University, 1992; M.S., Emporia State University, 2000.	2007
<b>Steven E. King, Jr.</b> , <i>Assistant Athletics Director of Public Media Relations and Marketing; Sports Information Director</i> B.S. Messiah College, 2006; M.S. Northeastern University, 2012	2012
<b>Philip J. Lawlis</b> , <i>Director of Counseling and Health Services</i> A.A., Vincennes University, 1973; A.B., Indiana University, 1975; M.A., Ph.D., University of Kansas, 1978, 1980	1980
<b>Patrick L. Lightle</b> , <i>Head Baseball Coach; Game Management Coordinator; Adjunct Instructor in Health and Human Performance</i> B.A., Ohio Dominican University, 1985; M.S., Eastern Kentucky University, 1987.	2012
<b>Wendy S. Lippert</b> , <i>Assistant Director of International Programs</i> B.A., Messiah College, 1993; M.S., Shippensburg University, 2004.	2005
<b>Bradley S. McCarty</b> , <i>Head Men's Soccer Coach; Associate Director of Athletics</i> B.A., Messiah College, 1993; M.E., Wichita State University, 1997.	2001
<b>Michael R. Miller</b> , <i>Head Women's Basketball Coach; Adjunct Instructor in Business</i> B.S., Messiah College, 1983; M.B.A., Shippensburg University, 1985.	1986
<b>Stephanie Faith Minnich</b> , <i>Director of International Programs</i> B.A., Central Penn College, 1999; M.A., Evangelical Theological Seminary, 2011.	2011
<b>Ashley B. Sheaffer</b> , <i>Assistant Director of Residence Life/Special Interest Housing Harrisburg</i> B.A., Messiah College, 2006; M.S., Shippensburg University, 2009.	2009
<b>Benjamin R. Taylor</b> , <i>Director of Student Involvement and Leadership Programs</i> B.A., Taylor University, 2007; M. A., Taylor University, 2009.	2009
<b>Geneve (Evie) R. Telfer</b> , <i>Associate College Pastor</i> B.A., Vanderbilt University, 1984; M.Div., Asbury Theological Seminary, 1993; M.S., Loyola College in Maryland, 2009.	1997
<b>Judi K. Tobias</b> , <i>Head Volleyball Coach; Adjunct Instructor of Health and Human Performance</i> B.A., Messiah College, 1980; M.Ed., Penn State University Capital Campus, 1996.	1996
<b>Amy Sue VanDerWerf</b> , <i>Director of Residence Life</i> B.S., Northwestern College, 1992; M.A., Geneva College, 2003.	2005
<b>Patrick W. Van Pelt</b> , <i>Head Men's Basketball Coach; Adjunct Instructor in Health and Human Performance</i> B.A., Messiah College, 1991; M.A., Penn State University, 1997.	1999
<b>Kevin J. Villegas</b> , <i>Director of International Student Programs</i> B.A., Messiah College, 1998; M.A., Fuller Theological Seminary, 2012.	2012
<b>Michael N. Warari</b> , <i>Residence Director, Miller Hall/Fry Apartments</i> B.A., Cornerstone University, 2002; M.Div., Grand Rapids Theological Seminary, 2006.	2006
<b>Amy C. Weaver</b> , <i>Associate Director for Athletics Operations; Senior Women's Administrator; Head Softball Coach</i> B.S., Messiah College, 1991; M.S., Western Maryland, 1998.	1998
<b>Kevin L. Williams, Jr.</b> , <i>Residence Director, Sollenberger Hall/Mellinger Apartments</i> B.A., Malone College, 2004; M. A., The University of Akron, 2010.	2012
<b>Wendell S. Witter</b> , <i>Assistant Director of Student Involvement and Leadership</i> B.S., Messiah College, 1996; M.A., Wheaton College, 2000.	2007

Douglas M. Wood, *Associate Dean of Students*  
B.A., Houghton College, 1990; M.S., Alfred University, 1996.

1997

## Emeriti Educators

*Dates indicate years of service*

<b>Michael R. Brown</b> , <i>Librarian Emeritus</i> B.A., Upland College, 1963; M.S.L.S., D.B.A., University of Southern California, 1965; M.A., Temple University, 1977.	1973-2006
<b>Marvin L. Brubaker</b> , <i>Professor Emeritus of Mathematics</i> A.B., Susquehanna University, 1961; M.A., Bowling Green State University, 1964; Ph.D., Lehigh University, 1973.	1983-2005
<b>Barbara E. Burwell</b> , <i>Assistant Professor Emerita of Health and Human Performance</i> B.S., Wheaton College, 1965; M.A., Montclair State College, 1985; Penn State University.	1985-2006
<b>Ronald J. Burwell</b> , <i>Professor Emeritus of Sociology and Anthropology</i> A.B., Wheaton College, 1965; M.Div., Trinity Seminary, 1968; M.A., Ph.D., New York University, 1972, 1976.	1985-2011
<b>D. Wayne Cassel</b> , <i>Professor Emeritus of Mathematics; Educational Space Coordinator</i> B.S., Greenville College, 1959; M.A., Ph.D., Syracuse University, 1962, 1967.	1962-2000
<b>Gene B. Chase</b> , <i>Professor Emeritus of Mathematics and Computer Science</i> S.B., Massachusetts Institute of Technology, 1965; M.A., Cornell University, 1970; Gordon College; University of Washington; University of North Dakota; Ph.D., Cornell University, 1979.	1973-2007
<b>Stephen G. Cobb</b> , <i>Professor Emeritus of Sociology</i> B.A., MacMurray College, 1963; M.Div., Garrett Theological Seminary, 1966; Ph.D., Northwestern University, 1970.	1989-2007
<b>J. Barry DeRoos</b> , <i>Associate Professor Emeritus of Computer Science</i> B.S., Calvin College, 1962; Ph.D., Wayne State University, 1966.	1983-2007
<b>Terry L. Earhart</b> , <i>Assistant Professor Emeritus of Management</i> B.S., U.S. Naval Academy, 1964; M.B.A., Harvard University, 1973; Sam Walton Fellow, 2003-2008.	1989-2010
<b>John W. Eby</b> , <i>Professor Emeritus of Sociology</i> B.A., Eastern Mennonite College, 1962; M.S., Ph.D., Cornell University, 1970, 1972.	1994-2011
<b>Peter S. Fraser</b> , <i>Associate Professor Emeritus of Chemistry</i> B.A., University of Minnesota, 1959; Ph.D., University of Washington, 1977.	1982-2003
<b>Dorothy J. Gish</b> , <i>Academic Dean Emerita; Professor of Early Childhood and Family Education</i> B.A., Greenville College, 1957; M.Ed., Ph.D., Pennsylvania State University, 1966, 1971.	1972-1998
<b>Robert Heinemann</b> , <i>Professor Emeritus of Communication</i> A.B., Wheaton College, 1965; M.A., Illinois State University, 1968; Ph.D., The Ohio State University, 1975.	1979-2005
<b>Gerald D. Hess</b> , <i>Professor Emeritus of Biology</i> B.A., Messiah College, 1965; M.S. Ph.D., Michigan State University, 1968, 1970.	1970-2010
<b>William R. Higgins</b> , <i>Professor Emeritus of Music and Computer Education</i> B.S., Lebanon Valley College, 1964; M.M., Boston University, 1967; D.Ed., The Pennsylvania State University, 1981.	1968-2004
<b>Kenneth B. Hoover</b> , <i>Professor Emeritus of Biology</i> A.B., John Fletcher College, 1934; M.S., Kansas State University, 1941; Ph.D., Pennsylvania State University, 1952; North Carolina State College; Duke University.	1942-1977
<b>D. Ray Hostetter</b> , <i>President Emeritus of the College</i> A.B., Greenville College, 1950; M.A., Pennsylvania State University, 1951; Ed.D., Columbia University, 1965.	1952-1955; 1960-1994
<b>Kay L. Huber</b> , <i>Associate Professor Emerita of Nursing</i> B.S.N.E., Wilkes College, 1969; M.P.A., Pennsylvania State University, 1979; M.S.N., University of Pennsylvania, 1982; D.Ed., The Pennsylvania State University, 1993.	1984-2007
<b>George P. Kimber</b> , <i>Associate Professor Emeritus of Biblical Literature</i> B.A., Southern California College, 1962; M.Div., M.A., D.Min., Ashland Theological Seminary, 1969, 1975, 1979; Talbot Theological Seminary; Trinity Evangelical Divinity School; The Pennsylvania State University; Temple University.	1970-1992
<b>Alden M. Long</b> , <i>Professor Emeritus of Biblical Literature and Greek</i> A.B., Houghton College, 1950; M.A., New York University, 1953; B.D., Eastern Baptist Theological Seminary, 1957; S.T.M., Biblical Seminary in New York, 1958.	1951-1997
<b>Martha M. Long</b> , <i>Assistant Professor Emerita of English</i> B.S., Lock Haven State College, 1950; M.A., Pennsylvania State University, 1964; M.S., Shippensburg University, 1978.	1964-1993

<b>Vernon M. Martin, Jr.</b> , <i>Associate Professor Emeritus of Accounting</i> B.A., Messiah College, 1966; B.S., Elizabethtown College, 1968; M.Ed., Pennsylvania State University, 1971; University of Southern California; Tax Corporation of America; Wright State University; C.P.A., 1978; M.S., Widener University, 1994.	1981-2006
<b>Mary Ann Mihok</b> , <i>Associate Professor Emerita of Dietetics</i> B.S., Pennsylvania State University, 1961; M.S., University of Pittsburgh, 1965; Ph.D., University of Maryland, 1997.	1982-2004
<b>Ronald L. Miller</b> , <i>Professor Emeritus of Music</i> B.S. in Ed., Indiana University of Pennsylvania, 1961; M.Mus., Ph.D., Indiana University (Indiana), 1967, 1974.	1968-2003
<b>Benjamin W. Myers</b> , <i>Associate Professor Emeritus of Biology</i> A.B., Messiah College, 1962; M.S., Kansas State Teacher's College, 1966; Ph.D., Purdue University, 1970.	1966-1999
<b>Paul W. Nisly</b> , <i>Professor Emeritus of English</i> A.A., Hession College, 1963; B.A., Eastern Mennonite College, 1965; M.A., M.Phil., Ph.D., University of Kansas, 1969, 1972, 1974; City University of New York.	1972-2006
<b>Theodore L. Prescott</b> , <i>Professor Emeritus of Art</i> B.A., Colorado College, 1967; M.F.A., Rinehart School of Sculpture, The Maryland Institute College of Art, 1970.	1980-2009
<b>Clyde A. Ross</b> , <i>Professor Emeritus of English</i> B.S., Gordon College, 1954; M.R.E., M.Div., Central Baptist Theological Seminary, 1956, 1957; M.Ed., Worcester State College (Massachusetts), 1963; M.A., Geneseo State University College (New York), 1970; Columbia University; Oxford University.	1968-1997
<b>Dorothy A. Schrag</b> , <i>Assistant Professor Emerita of Music</i> B.Mus.Ed., Drake University, 1940; M.Mus., Central Conservatory of Chicago, 1952; School of Sacred Music; Union Theological Seminary; New School for Music Study; Madison College.	1953-1956; 1959-1983
<b>Norman E. Shank</b> , <i>Professor Emeritus of Chemistry</i> B.S., Eastern Mennonite College, 1965; Ph.D., The Ohio State University, 1969.	1962-2000
<b>Joseph K. Sheldon</b> , <i>Professor Emeritus of Biology and Environmental Science</i> B.S., The College of Idaho, 1966; Ph.D., University of Illinois, 1972.	1992-2007
<b>E. Morris Sider</b> , <i>Professor Emeritus of History and English Literature</i> A.B., Th.B., Upland College, 1952, 1953; M.A., University of Western Ontario, 1955; Ph.D., State University of New York at Buffalo, 1966; University of Toronto.	1963-2000
<b>Ronald R. Sider</b> , <i>Professor Emeritus of Music</i> B.Mus., M.Mus., Ph.D., Eastman School of Music, University of Rochester, 1957, 1959, 1967; A.A.G.O., 1962; Oakland University; State University of New York at Binghamton; Westminster Choir College.	1958-1995
<b>Martha O. Solomon</b> , <i>Assistant Professor Emerita of Nursing</i> B.S.N., St. Joseph College, 1973; M.S.N., University of Virginia, 1983; Certified Pediatric Nurse, R.N., B.c., 1989.	1983-2007
<b>Richard A. Stevick</b> , <i>Professor Emeritus of Psychology</i> B.A., Roberts Wesleyan College, 1961; M.S., Syracuse University, 1965; Ed.D., Texas Tech University College of Education, 1979.	1980-2005
<b>Terry L. Stoudnour</b> , <i>Professor Emeritus of Education</i> B.A., Elizabethtown College, 1963; M.Ed., Shippensburg University, 1965; Temple University; Ed.D., Nova Southeastern University, 1978.	1968-1972, 1974-2004
<b>Ronald J. Webb</b> , <i>Professor Emeritus of Business</i> B.A., Wheaton College, 1964; M.B.A., D.B.A., University of Maryland, 1996, 1973.	1980-1998; 2004-2008
<b>Velma A. Yoder</b> , <i>Associate Professor Emerita of Education</i> B.S., M.Ed., Ph.D., Pennsylvania State University, 1969, 1970, 1988.	1989-2012

# ACADEMIC CALENDAR 2013–2014

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FALL SEMESTER	August 27	Tuesday	Community Day
	August 28	Wednesday	Community of Educators' Retreat
	August 29-September 6	Thursday-Friday	Welcome Week/Orientation
	September 3	Tuesday	Classes Begin, 8:00 a.m.
	October 10-13	Thursday-Sunday	Mid-Fall Recess
	October 14	Monday	Classes Resume, 8:00 a.m.
	October 19	Saturday	Homecoming
	November 26	Tuesday	Follows Thursday Course Schedule
	November 27-December 1	Wednesday-Sunday	Thanksgiving Recess
	December 2	Monday	Classes Resume, 8:00 a.m.
	December 13	Friday	Last Day of Classes
	December 16-19	Monday-Thursday	Semester Exams
	December 20-January 7	Friday-Tuesday	Winter Recess
SPRING SEMESTER			
JANUARY TERM	January 8	Wednesday	Classes Begin, 8:00 a.m.
	January 20	Monday	Martin Luther King, Jr. Day (No Classes)
	January 29	Wednesday	Term Ends
SPRING TERM	January 30-February 2	Thursday-Sunday	January Term Recess
	February 3	Monday	Classes Begin, 8:00 a.m./Evening Orientation
	March 15-23	Saturday-Sunday	Spring Recess
	March 24	Monday	Classes Resume, 8:00 a.m.
	April 10	Thursday	Service Day (Rain Date is April 15)
	April 18-21	Friday-Monday	Easter Break
	April 22	Tuesday	Classes Resume, 8:00 a.m.
	May 6	Tuesday	Last Day of Classes (Follows Thursday Course Schedule)
	May 7	Wednesday	Reading Day
	May 8-13	Thursday-Tuesday	Final Exams
	May 16-17	Friday-Saturday	Commencement Weekend
	May 19-23	Monday-Friday	Faculty: May Development Week
	May 26-June 13	Monday-Friday	Approved Cross-Cultural Courses Only
MAY TERM	May 26-June 13	Monday-Friday	Approved Cross-Cultural Courses Only
SUMMER SESSION	May 27-July 18	Tuesday-Friday	On-Line Courses

# ACADEMIC CALENDAR 2014–2015

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FALL SEMESTER	August 26	Tuesday	Community Day
	August 27	Wednesday	Community of Educators' Retreat
	August 28-September 5	Thursday-Friday	Welcome Week/Orientation
	September 2	Tuesday	Classes Begin, 8:00 a.m.
	October 9-10	Thursday-Sunday	Mid-Fall Recess
	October 13	Monday	Classes Resume, 8:00 a.m.
	October 18	Saturday	Homecoming
	November 25	Tuesday	Follows Thursday Course Schedule
	November 26-30	Wednesday-Sunday	Thanksgiving Recess
	December 1	Monday	Classes Resume, 8:00 a.m.
	December 12	Friday	Last Day of Classes
	December 15-18	Monday-Thursday	Semester Exams
	December 19-January 6	Friday-Tuesday	Winter Recess
SPRING SEMESTER			
JANUARY TERM	January 7	Wednesday	Classes Begin, 8:00 a.m.
	January 19	Monday	Martin Luther King, Jr. Day (No Classes)
	January 28	Wednesday	Term Ends
SPRING TERM	January 29-February 1	Thursday-Sunday	January Term Recess
	February 2	Monday	Classes Begin, 8:00 a.m./Evening Orientation
	March 16-22	Saturday-Sunday	Spring Recess
	March 23	Monday	Classes Resume, 8:00 a.m.
	April 3-6	Friday-Monday	Easter Break
	April 7	Tuesday	Classes Resume, 8:00 a.m.
	April 16	Thursday	Service Day (Rain date is April 21)
	May 5	Tuesday	Last Day of Classes (Follows Thursday Course Schedule)
	May 6	Wednesday	Reading Day
	May 7-12	Thursday-Tuesday	Final Exams
	May 15-16	Friday-Saturday	Commencement Weekend
	May 18-22	Monday-Friday	Faculty: May Development Week
	May 25-June 12	Monday-Friday	Approved Cross-Cultural Courses Only
MAY TERM	May 25-June 12	Monday-Friday	Approved Cross-Cultural Courses Only
SUMMER SESSION	May 26-July 20	Tuesday-Monday	On-Line Courses

## CONTACTS DIRECTORY 717-796-1800

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Academic Records, Transcripts .....	Ext. 6012	Internship Center .....	Ext. 5099
Admissions .....	Ext. 6000	Learning Center (tutoring).....	Ext. 7209
Agapé Center for Service and Learning.....	Ext. 7255	Library (Murray).....	Ext. 6006
Alumni and Parent Relations .....	Ext. 5252	Philadelphia Campus .....	215-684-7400
Boyer Center .....	Ext. 5077	Post Office.....	Ext. 6026
Business Office.....	Ext. 6004	Registrar .....	Ext. 6012
Career Center .....	Ext. 6016	Religious Affairs (College Ministries) .....	Ext. 6017
Collaboratory .....	Ext. 7226	Safety, Department of .....	6005
Dean of Students .....	Ext. 5234	Student Employment (off campus) .....	Ext. 6016
Disability Services .....	Ext. 7258	Student Employment (on campus) .....	Ext. 2900
Engle Health Center.....	Ext. 6035	Student Fees and Financing .....	Ext. 6004
Financial Aid .....	Ext. 6007	Student Government Association.....	Ext. 5093
Gifts, Bequests, and Annuities .....	Ext. 5065	Student Housing .....	Ext. 5239
Information Technology Services (computer help for students) .....	Ext. 3333	Student Programs .....	Ext. 5240
Intercultural Office.....	Ext. 2131	Writing Center .....	Ext. 6530

To facilitate prompt response, please address inquiries to Messiah College and to the appropriate office as listed above.

College office hours are from 8:00 a.m. to 5:00 p.m. Monday through Friday. College staff are available at other times by appointment. Appointments should be scheduled in advance by calling the College and asking for the appropriate office.

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