



# INTERNAL GRANTS

## 2023-2024 Academic Year

*Grants funded by the Office of Faculty Development*

### Course Development

**Carol Buckley (Associate Professor of Math Curriculum Climate and Instruction)** – To significantly revise EDUC 209 to go from a face-to-face class to asynchronous online format for one section per academic year.

**Jeff Erickson (Associate Professor of Biology)** – To redesign GIS 245, moving from ArcGIS Desktop to ArcGIS Pro software.

**Ryan Farris (Assistant Professor of Engineering)** – To develop new organizational supports and course redesign efforts to improve student learning in ENGR 431: Biomedical Instrumentation course, which will be offered for the second time this fall.

**Amy Ginck (Senior Lecturer in Modern Languages)** – To develop an online asynchronous SPAN 201 course next academic year (Spring 2024).

**Anne Reeve (Professor of Chemistry)** – To develop CHEM 410 and CHEM 410L, Biochemistry and Lab, which she will teach in Fall 2023 for the first time in ten years.

**Stella Ye (Professor of Mandarin Chinese)** – To prepare for a new non-western and Chinese major course, CHIN 230 Modern Chinese Culture: A Cup of Tea: From Bruce Lee to TikTok, which is scheduled to be taught in Fall 2023.

### Teaching Enhancement

**Cynthia Lehman (Senior Lecturer in Mathematics)** – To enhance the Precalculus for the Sciences (MATH105) course by 1) developing and integrating class handouts with gaps for active learning and 2) reviewing and selecting video resources for supplemental use, to be implemented in Fall 2023.

**Eric Seibert (Professor of Old Testament)** – To prepare and deliver three Hebrew courses scheduled in 2023-2024.

### Scholarship

**Brenda Elliott (Assistant Professor of Nursing)** – To conduct a qualitative research study, including dissemination of the completed research at a spring/summer conference in 2024.

**John Fea (Professor of American History)** – To support a two-week research trip to the National Television News Archives at Vanderbilt University.

**Erik Forst (Associate Professor of Music)** – To support a research study of West African drumming traditions, with special emphasis on the music of the Akan, Ga-Dangme, Dagomba, and Ewe people, in which special emphasis will be given to research designed to augment the educational experience for students enrolled in my MUAP 171 and MUMH 338.

**Brent Good (Professor of Art)** – To support a Fall 2023 Artist-in-Residence program in Orvieto, Italy.

**John Harms (Professor of Biology)** – To support facets of sabbatical research focused on testing the efficacy of a hormone receptor-blocking drug, proglumide, in combating the formidable collagen-rich nature of advanced pancreatic cancer, as well as ongoing efforts to determine the cell type targeted by this drug.

**Rebecca Harris (Assistant Professor of Biblical and Religious Studies)** – To complete a book project, *Living in the Liminal: the Eschatological Present in Qumran Literature*.

**Niklas Hellgren (Professor of Chemistry)** – To synthesize and characterize the transition of metal boride thin films, such as TiB<sub>x</sub>, AlB<sub>x</sub>, CrB<sub>x</sub>, as well as and Ti-Al-Cr-B alloys through the advanced instrumentation at Materials Research Institute at Penn State University.

**Tina Keller (Associate Professor of TESOL Education)** – To research in the United States and Bhutan seeking to understand how university teacher educators can operationalize EdGNH (Education for Gross National Happiness) into the teacher education classroom.

**Jesse Kleingardner (Associate Professor of Biochemistry)** – To support the directed evolution of heme metabolism enzymes to biosynthetically generate metalloproteins containing metal-substituted hemes.

**Abaz Kryemadhi (Professor of Physics)** – To search for fine grained streams of dark matter using a Global Network of Optical Magnetometers for Exotic physics.

**Michelle Lockwood (Senior Lecturer of Engineering)** – To test for shelf life when water is purified using ozonation and ultraviolet radiation concluding with better designs within our Collaboratory water purification teams, as well as a paper submission to the International Water Association.

**Devin Manzullo-Thomas (Assistant Professor of American Religious History and Interdisciplinary Studies)** – To study the historical exhibits and displays at the Jerry Falwell Museum in Lynchburg, VA and the Flower Pentecostal Heritage Center in Springfield, MO.

**Janet Matanguihan (Assistant Professor of Biological Sciences)** – To assess flax varieties for their agronomic characteristics and oil yield under the environmental conditions of south-central Pennsylvania, as a foundation to establishing sustainable flax production in the region.

**Obed Mfum-Mensah (Professor of Education)** – To visit three selected countries for fieldwork data collection to complete the remaining four chapters and drafted six chapters of his fourth book project.

**Bernardo Michael (Professor of History)** – To finalize curation and copying of over 300 documents identified in Nepali archives in 2022-2023, pertaining to the Anglo-Gorkha war boundary negotiations and locating additional materials that will open new line of inquiry into the writing of “speculative” histories.

**Larry Mylin (Professor of Biology)** – To purchase consumable laboratory supplies and serum-free growth media needed to complete an ongoing project designed to provide educational tools (Bacteriophage T4- specific, neutralizing monoclonal antibodies) for undergraduate Microbiology and/or Immunology course laboratories.

**David Pettegrew (Professor of History and Archeology)** – To support research in Greece related to new archaeological initiatives on the Isthmus of Corinth.

**Bill Stowman (Professor of Music)** – To support a recording project for solo trumpet and other instruments featuring his work in collaboration with Messiah faculty, students, and alumni, to promote our department to prospective students, and the community.

### **Service Learning**

**Joanna Behm (Assistant Professor of Occupational Therapy)** – To support partnership with the organization Freedom and Restoration for Everyone Enslaved (FREE) in creating 20 occupation-based activities for the Refuge home, a restorative home for female survivors of sex trafficking located in Berks County.

**Mindy Smith (Assistant Professor of Applied Health Science)** – To provide funding for student groups in Health Promotion Management (APHS 210) to authentically produce curriculum materials to support health areas identified for our community partner, Brethren Housing Association.

*Grants Funded by the Ernest L. Boyer Center*

**Scholarship of Teaching & Learning (SoTL)**

**Krystal Robinson-Bert (Associate Professor of Occupational Therapy)** – To examine the outcomes of Ludic Pedagogy implementation within a graduate “STEM” course.

*Grants Funded by the Teaching and Learning Initiative*

**Teaching Internship (professor/student)**

**Stella Ye** / Harrison Zern

*Grants Funded by Endowment*

**Smith Scholar Interns (professor/student)**

**John Fea** / Meredith Gardner

**Raeann Hamon** / Lauren Garcia

**David Pettegrew** / Alexandra Shehigian

**Jason Renn** / Amanda Carolina Hatch

**Bill Stowman** / Katelyn Weaver

**Harry & Nancy Preis Graduate Nursing Teaching Enhancement**

**Krystal Robinson-Bert (Associate Professor of Occupational Therapy)** – To increase incorporation of Ludic Pedagogy through gamification and retrieval practice.