

Engineering with Computer Concentration
(Department of Engineering)

Major Requirements

<u>Major Courses</u>	<u>Credits</u>	<u>Semester Completed</u>
[ENGR 101] Engineering Graphics	2	
[ENGR 102] Introduction to Engineering	2	
[ENGR 201] Group Orientation	1	
[ENGR 231] Engineering Statics	3	
[ENGR 254] Materials Engineering	4	
[ENGR 262] Circuit Analysis	4	
[ENGR 290] Engineering Economics	2	
[ENGR 301] Seminar I	1	
[ENGR 302] Seminar II	1	
[ENGR 366] Control Systems	4	
[ENGR 488] Project III	2	
[ENGR 489] Project IV	2	
[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	
Computer Concentration		
[CIS 181] Computer Programming I	3	
[CIS 182] Computer Programming II	3	
[COSC 281] System Internals and Assembly Language	3	
[COSC 282] Data Structures and Algorithms	3	
[ENGR 242] Experimental Methods	3	
[ENGR 340] Analog Electronics	3	
[ENGR 342] Microprocessor Applications	4	
[ENGR 349] Digital Electronics	3	
Six credits from the following:	6	
[CIS 332] Database Concepts (3)		
[CIS 333] Database Applications (3)		
[COSC 382] Organization of Programming Languages (3)		
[COSC 415] Data Communications and Networking (3)		
[COSC 416] Operating Systems and Computer Architecture (3)		
[COSC 487] Interactive 3D Graphics (3)		

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<u>Courses</u>	<u>Credits</u>	<u>Semester Completed</u>
First Year Seminar	3	
Oral Communications	3	
Created and Called for Community	3	
Mathematical Sciences ([MATH 111])	3 or 4	<u>met by major</u>
Laboratory Science ([CHEM 105])	3 or 4	<u>met by major</u>
Science, Technology & the World	3	<u>waived</u>
Two of the following:	6	
Social Science (3 credits)		
European History (3 credits)		
United States History (3 credits)		
Literature	3	
Philosophy and Religion	3	
Arts	3	<u>waived</u>
Language/Cross Cultural		
First Semester of Language	3	
Second Semester of Language	3	
One of the following*:	2 or 3	
Third Semester of Language		
Cross Cultural		
Non-Western Studies		
Bible	3	
Christian Beliefs	3	
Health and Physical Fitness		
Introduction to Wellness	2	
Activity Course	1	
One of the following:	3	
Ethics (3 credits)		
World Views (3 credits)		
Pluralism in Contemporary Society (3 credits)		
Writing Enriched Course		

*The choice of either a third semester of a language, a cross cultural, or a non-western studies course applies **only** to the Engineering major.

SUMMARY OF DEGREE REQUIREMENTS:

General Education	41-42
Major Core Requirements	58
Concentration Requirements	31
Total	130-131

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