School of Engineering and Engineering Technology
ENGINEERING, B.S.
COMPUTER CONCENTRATION (CpE)
2019-20
SUGGESTED COURSE SEQUENCE

First Semester - Fall			
16 Hours			
BIBL	1033	3	Biblical Literature
CPGR	2102	2	Intro to Computer Engineering (Fall only)
ENGL	1013	3	English Composition I
ENGR	1311	1	Manufacturing Processes Lab
ENGR	1513	3	Intro to Engineering Practice I (Fall only)
LETU	1101	1	Cornerstones of Life & Learning
MATH	1903	3	Calculus I [1]

Second Semester - Spring			
16 Hours			
ENGL	1023	3	English Composition II
ENGR	1523	3	Intro to Engineering Practice II (Spring only)
MATH	2013	3	Calculus II [1]
PHYS	2011	1	University Physics I Lab (Spring only)
PHYS	2013	3	University Physics I (Spring only)
THEO	2043	3	Biblical Theology for the Christian Life

Third Semester - Fall			
17 Hours			
COSC	1303	3	Computer Science I
EEGR	2051	1	Circuits & Measurements Lab [1]
EEGR	2053	3	Electric Circuits [1]
MATH	2203	3	Differential Equations
PHYS	2021	1	University Physics II Lab (Fall only)
PHYS	2023	3	University Physics II (Fall only)
		3	Civic Engagement Elective

Fourth Semester - Spring			
16 Hours			
COSC	2103	3	Computer Science II
EEGR	2163	3	Advanced Circuits [1] (Spring only)
EEGR	3213	3	Digital Electronics
ENGR	2400	0	Sophomore Design Seminar (Spring only)
ENGR	2704	4	Project Mgmt, Design & Entrepreneurship
MATH	2003	3	Discrete Mathematics

Fifth Semester - Fall			
16 Hours			
CPGR	4233	3	Intro to Microprocessors/computers (Fall only)
COMM	1113	3	Intro to Speech Communication
COSC	2203	3	Data Structures
EEGR	3314	4	Electronics and Lab (Fall only)
MATH	2303	3	Linear Algebra

Sixth Semester - Spring			
18 Hours			
BUSI	3023	3	Entrepreneurship for Engineers [2]
CPGR	4253	3	Microcomputer Design (Spring only)
EEGR	4283	3	Digital Signal Proccessing (Spring only)
MEGR	2013	3	Statics [1]
MATH		3	Math Elective [3]
		3	Technical Elective [6]

Seventh Semester - Fall			
16 Hours			
BIBL		3	Biblical Engagement Elective
CHEM	1111	1	General Chemistry I Lab
CHEM	1113	3	General Chemistry I
COSC	3603	3	Networks & Data Communications [4] (Fall only)
ENGR	4813	3	Senior Design I (Fall only)
MATH	3403	3	Statistics

Eighth Semester - Spring			
15 Hours			
ENGR	4823	3	Senior Design II (Spring only)
THEO		3	Theological Engagement Elective
		3	Civic Engagement Elective
		3	Ingenuity Elective
		3	Technical Elective [5]

TOTAL HOURS 130

1: Minimum grade of 'C' required.
2: ENGR 6223 Advanced Engineering Mathematics recommended if considering engineering graduate school.
3: MATH 3453, 4233, 4253, 4403 or 4513
4: COSC 3303 Computer Architecture (Spring only) or COSC 3503 Operating Systems (Spring only) may be substituted for COSC 3603.
5: Any approved engineering course or computer science course
6: Any 3000+ level approved engineering course

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FRESHMAN		SOPHOMORE		JUNIOR		SENIOR	
Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring

Courses:

- Calculus I [1] **MATH 1903** (F & S)
- Calculus II [1] **MATH 2013** (F & S)
- Differential Equations **MATH 2203** (F & S)
- Discrete Math **MATH 2003** (F & S)
- Linear Algebra **MATH 2303** (F & S)
- Math Elective [3] (3 hrs)
- Statistics **MATH 3403** (F & S)
- Univ Physics I and Univ Physics I Lab **PHYS 2011/2013** (S)
- Computer Science I **COSC 1303** (F & S)
- Computer Science II **COSC 2103** (F & S)
- Statics [1] **MEGR 2013** (F & S)
- Networks and Data Communications [4] **COSC 3603** (F)
- Technical Elective [5] (3 hrs)
- Manufacturing Processes Lab **ENGR 1311** (F & S)
- Data Structures **COSC 2203** (F & S)
- Entrepreneurship for Engineers [2] **BUSI 3023** (F & S)
- Advanced Circuits [1] **EEGR 2063** (S)
- Electronics and Lab **EEGR 3314** (F)
- Intro to Engineering Practice I **ENGR 1513** (F)
- Intro to Engineering Practice II **ENGR 1523** (S)
- Univ Physics II and Univ Physics II Lab **PHYS 2021/2023** (F)
- Project Mgmt, Design and Entrepreneurship **ENGR 2704** (F & S)
- Microcomputer Design **CPGR 4253** (S)
- Senior Design I* **ENGR 4813** (F)
- Senior Design II **ENGR 4823** (S)
- Intro to Computer Engineering **CPGR 2102** (F)
- Electric Circuits [1] **EEGR 2053** (F & S)
- Intro to Microprocessors and Microcomputers **CPGR 4233** (F)
- Technical Elective [6] (3 hrs)
- Gen Chem I and Gen Chem I Lab **CHEM 1111/ 1113** (F & S)
- Circuits & Measurements Lab [1] **EEGR 2051** (F & S)
- Digital Electronics **EEGR 3213** (F & S)
- Digital Signal Processing **EEGR 4283** (S)
- Sophomore Design Seminar **ENGR 2400** (S)

Notes:

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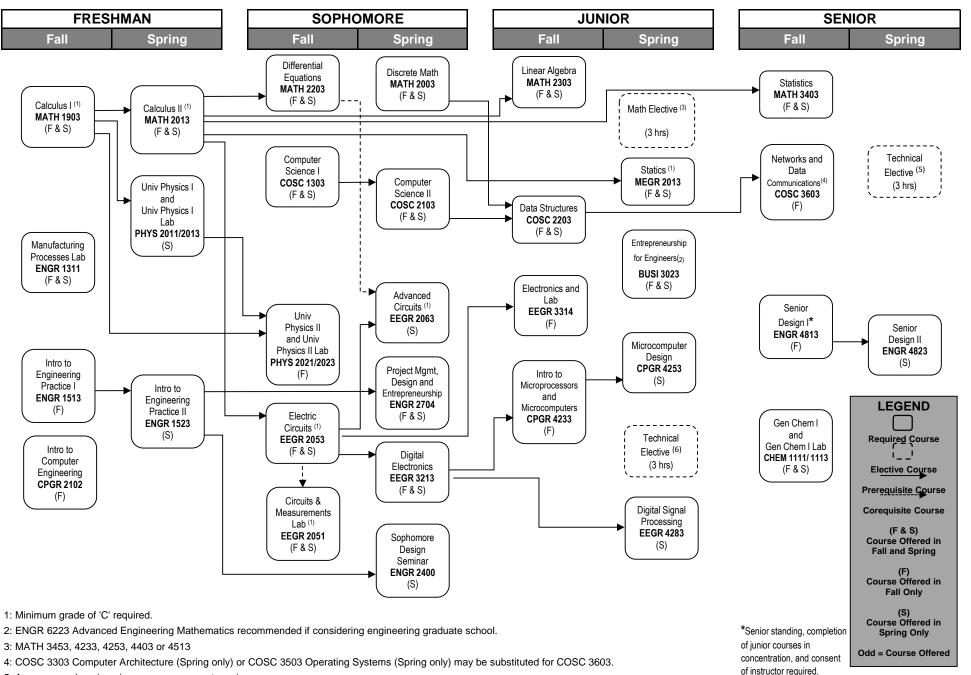
5: Any approved engineering course or computer science course

6: Any 3000+ level approved engineering course

LEGEND

- Required Course
- Elective Course
- Prerequisite Course
- Corequisite Course
- (F & S) Course Offered in Fall and Spring
- (F) Course Offered in Fall Only
- (S) Course Offered in Spring Only
- Odd = Course Offered

*Senior standing, completion of junior courses in concentration, and consent of instructor required.