COMPUTER ENGINEERING (B.S.)

Degree: Bachelor of Science
Major: Computer Engineering
Total Hours: 120

Code	Title	Hours
General Education Core Curriculum		
Communication		
ENGL 1301	Composition I	3
Select one of the following:		3
COMM 1315	Public Speaking I	
COMM 1321	Business and Professional Speech	
ENGL 1302	Composition II	
FREN 1311	Beginning French I	
SPAN 1311	Beginning Spanish I	
Mathematics		
MATH 2413	Calculus and Analytical Geometry I	4
Life and Physical Sciences		
PHYS 2425	University Physics I	4
PHYS 2426	University Physics II	4
Language, Philosophy and Culture		
PHIL 1370	Philosophy of Knowledge	3
or PHIL 2306	Ethics	
Creative Arts		*3*
Select one of the following:		
ARTS 1301	Art Appreciation	
ARTS 1303	Art History I	
COMM 1375	Film Appreciation	
COSC 1324	The Art of Computer Game Development	
DANC 2303	Dance Appreciation	
MUSI 1306	Music Appreciation	
MUSI 1309	Jazz History and Appreciation	
MUSI 1310	History of Rock and Roll	
PHIL 1330	Arts and Ideas	
THEA 1310	Theatre Appreciation	
American History		*6*
Select two of the following:		
HIST 1301	U S History I 1763-1877	
HIST 1302	U S History II Since 1877	
HIST 2301	Texas History	
Government/Political Science		
POLS 2301	Intro to American Government I	3
POLS 2302	Intro/American Government II	3
Social and Behavioral Sciences		*3*
Select one of the following:		
ANTH 2346	Introduction to Anthropology	
ANTH 2351	Cultural Anthropology	
BULW 1370	Business Environment and Public Policy	
CRIJ 1301	Intro to Criminal Justice	
ECON 1301	Principles and Policies	
ECON 2301	Principles of Economics I Macro	
ECON 2301	Principles of Economics I Macro	
FINC 2310	Intro to Consumer Finance	
INEN 2373	Engineering Economics	
POLS 1301	Intro to Political Science	
PSYC 2301	General Psychology	
PSYC 2315	Lifespan Development	
SOCI 1301	Introduction to Sociology	
SOWK 2361	Intro Social Work	
Component Area Option		
MATH 2414	Calculus and Analytical Geometry II	4
The additional hours from Life and Physical Sciences are applied here		
Required Courses [2]		
CHEM 1311	General Chemistry I	3
CHEM 1111	General Chemistry I Laboratory	1
ELEN 1100	Introduction to ECE	1
MATH 2415	Calculus III	4
MATH 2318	Linear Algebra	3
INEN 3320	Probability and Statistics for Engineering	3
or MATH 3370	Introduction to the Theory of Statistical Inference	
MATH 3301	Ordinary Differential Equations	3
COSC 2375	Discrete Structures	3
or MATH 3321	Discrete Structures	
ELEN 2411	Circuits Analysis I	4
ELEN 3431	Digital System Design I	4
ELEN 2301	Computers & Programming II	3
ELEN 3421	Electronics I	4
ELEN 3320	Computer Networks	3
ELEN 4486	Embedded Microprocessor Systems	4
ELEN 3330	Operating Systems	3
ELEN 3340	Digital Integrated Circuits	3
ELEN 3313	Signals, Systems and Transforms	3
ELEN 3451	Digital System Design II	4
ELEN 4387	Computer Organization and Architecture	3
ELEN 4306	Senior Project Design I	3
ELEN 4314	Fundamentals of Digital Signal Processing	3
ELEN 4307	Senior Project Design II	3
CE Electives		
Select three courses. [1]		9
Total Hours		**120**

[1] Non-CE courses may substitute CE Electives if approved by department chair.

[2] ELEN 1301 is required unless substituted by an equivalent high school programming course.

Course	Title	Hours
First Year		
Fall		
ENGL 1301	Composition I	3
MATH 2413	Calculus and Analytical Geometry I	4
CHEM 1311	General Chemistry I	3
CHEM 1111	General Chemistry I Laboratory	1

ELEN 1100	Introduction to ECE	1
Social and Behavioral Sciences		3
	Hours	**15**
Spring		
MATH 2414	Calculus and Analytical Geometry II	4
Communication Elective		3
PHYS 2425	University Physics I	4
History Elective		3
ELEN 1301 - Computers and Programming I [2]		
	Hours	**14**
Second Year		
Fall		
MATH 2415	Calculus III	4
MATH 2318	Linear Algebra	3
PHYS 2426	University Physics II	4
INEN 3320 or MATH 3370	Probability and Statistics for Engineering or Introduction to the Theory of Statistical Inference	3
PHIL 1370	Philosophy of Knowledge	3
	Hours	**17**
Spring		
MATH 3301	Ordinary Differential Equations	3
COSC 2375 or MATH 3321	Discrete Structures or Discrete Structures	3
ELEN 2411	Circuits Analysis I	4
ELEN 3431	Digital System Design I	4
ELEN 2301	Computers & Programming II	3
	Hours	**17**
Third Year		
Fall		
ELEN 3421	Electronics I	4
ELEN 3320	Computer Networks	3
ELEN 4486	Embedded Microprocessor Systems	4
ELEN 3330	Operating Systems	3
POLS 2301	Intro to American Government I	3
	Hours	**17**
Spring		
ELEN 3340	Digital Integrated Circuits	3
ELEN 3313	Signals, Systems and Transforms	3
ELEN 3451	Digital System Design II	4
ELEN 4387	Computer Organization and Architecture	3
POLS 2302	Intro/American Government II	3
	Hours	**16**
Fourth Year		
Fall		
ELEN 4306	Senior Project Design I	3
ELEN 4314	Fundamentals of Digital Signal Processing	3
ELEN Elective [1]		3
Fine Arts Elective		3
	Hours	**12**
Spring		
ELEN 4307	Senior Project Design II	3
ELEN Elective [1]		6
History Elective		3
	Hours	**12**
	Total Hours	**120**

[1] Non-CE courses may substitute CE Electives if approved by department chair.

[2] ELEN 1301 is required unless substituted by an equivalent high school programming course