

COMPUTER ENGINEERING, BACHELOR OF SCIENCE

2018-2019 Degree Plans

University Core Requirements (43* Hours)	UHCL Course Title	TCCNS	CODE
Communications (6 hours):	WRIT 1301—Composition I (<i>Grade must be "C-" or better</i>)	ENGL 1301	010
	WRIT 1302—Composition II (<i>Grade must be "C-" or better</i>)	ENGL 1302	010
Mathematics (4* hours):	MATH 2413—Calculus I (<i>Grade must be "C-" or better</i>)	MATH 2413	020
*Three (3) hours of Calculus will count toward the University Core and one (1) hour will count toward the Major			
Life and Physical Sciences (6 hours):	PHYS 2325—University Physics (<i>lecture, Grade must be "C-" or better</i>)	PHYS 2325	030
	PHYS 2326—University Physics (<i>lecture, Grade must be "C-" or better</i>)	PHYS 2326	030
Language, Philosophy, and Culture (3 hours):	Choose ONE course from the core approved list		040
Creative Arts (3 hours):	Choose ONE course from the core approved list		050
U.S. History (6 hours):	HIST 1301—U.S. History I	HIST 1301	060
	HIST 1302—U.S. History II	HIST 1302	060
Government/Political Science (6 hours):	POLS 2305—Federal Government	GOVT 2305	070
	POLS 2306—Texas Government	GOVT 2306	070
Social/Behavioral Science (3 hours):	Choose ONE course from the core approved list		080
Component Area Option (6 hours):	COMM 1315—Public Speaking	SPCH 1315	090
	PSYC 1100—Learning Frameworks	PSYC 1100	090
	PHYS 2125—Lab for University Physics I (<i>Grade must be "C-" or better</i>)	PHYS 2125	090
	PHYS 2126—Lab for University Physics II (<i>Grade must be "C-" or better</i>)	PHYS 2126	090

Major Requirements (80 hours)	UHCL Course Title	TCCNS	CODE
<i>Required minimum grade for all Major Requirements is "C-".</i>			
	WRIT 3315—Technical Writing		
	CHEM 1311/1111—General Chemistry and Lab	CHEM 1311/1111	030/090
	MATH 2414—Calculus II	MATH 2414	
	MATH 2315—Calculus III	MATH 2315	
	MATH 2318—Linear Algebra	MATH 2318	
	MATH 2320—Ordinary Differential Equations	MATH 2320	
	MATH 2305—Discrete Mathematics	MATH 2305	
	STAT 3334—Probability & Statistics for Sci & Eng		
	CSCI 1320—C Programming	CSCI 1320	
	CSCI 1370—Software Development with Java		
	CSCI 2315—Data Structures	CSCI 2315	
	CENG 3312/3112—Digital Circuits and Lab		
	CENG 3313/3113—Linear Circuits and Lab		
	CENG 3316/3116 Electronics and Lab		
	CENG 3331/3131—Intro to Telecom & Networks and Lab		
	CENG 3351/3151—Computer Architecture and Lab		
	CENG 3264—Engineering Design & Project Management		
	CENG 3371—Microcontroller Programming		
	CENG 4313/4113—Microprocessor Interfacing and Lab		
	CENG 4331—Analysis & Design of Linear Systems		
	CENG 4354—Digital Systems Design		
	CENG 4265—Senior Projects I		

Major Requirements (80 hours, continued)

CENG 4266—Senior Projects II
SENG 4310—Intro to Systems Engineering
SWEN 4342—Software Engineering

Major Electives (9 hours)

CENG students will not be permitted to use CSCI 3303, 3311, 3331, 4303, or 4307 as electives.

- CENG/CSCI Elective 33xx or 43xx taken junior/senior year; requires faculty advisor approval
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Scholastic Performance Requirements for Computer Engineering Undergraduates

The UHCL graduation requirements stipulate that a student must achieve an overall minimum grade point average (GPA) of 2.0. The Computer Engineering program imposes additional requirements for students to be accepted into, and progress through, the upper-level Computer Engineering curriculum. The courses listed below (or equivalent courses as approved by the departmental academic advisor) are considered the Lower-Level Core (LLC) for Computer Engineering and must be completed with a grade of C- or better and a cumulative GPA of 2.5 or higher:

CSCI 1320, CSCI 1370, CSCI 2315, PHYS 2325 and lab, PHYS 2326 and lab, MATH 2413, MATH 2414, MATH 2305 and WRIT 1301.

Students may enroll in upper-level (3000-level) Computer Engineering or Computer Science courses after successfully completing the Computer Engineering LLC. Admission to upper-level status will be granted to students who successfully complete the Computer Engineering LLC courses during their freshman or sophomore years and have an overall UHCL GPA of 2.5 or higher. No LLC course may be attempted more than two times without consulting an assigned faculty adviser.

General Degree Requirements

- Students must complete at least 132 semester credit hours. A minimum of 45 hours of the 132 semester hours must be advanced (3000-4000 level) course work according to the requirements of the respective major.
- Students must complete the University Core Curriculum requirements (refer to Core Curriculum Requirements section of this catalog).
- Students must fulfill the statutory requirements of the Texas State Education Code, including the following:
 - Six hours of U.S. History (three hours may be Texas History).
 - Six hours of Constitutions of the United States and Texas.
- Students must demonstrate writing proficiency by completing nine hours of lower-level (1000-2000 level) and upper-level (3000-4000 level) English composition course credit with a minimum grade of "C-" or better. Some majors may require higher grades in English composition.
- Students must complete at least 25% of the credit hours required for the degree (i.e., 30 semester credit hours for a 120 credit hour program) through instruction offered by UHCL to fulfill the Southern Association of Colleges and Schools (SACS) residency requirements.
- Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.
- Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) coursework in the major in residence at UHCL.
- Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades of "C-" or below cannot be applied toward the 30 hours of resident upper-level work.