

Engineering Cullen College of Engineering

I. CORE REQUIREMENTS (41-44 hours)*

Course Name	Hours	TCCNS	UH
Communication (6 hours)			
English Composition I	3	ENGL 1301	ENGL 1303
English Composition II	3	ENGL 1302	ENGL 1304
Mathematics (8 hours)			
Calculus I	4	MATH 2413	MATH 1431
Calculus II	4	MATH 2414	MATH 1432
Life & Physical Sciences (6 hours)			
University Physics I	3	PHYS 2325 or 2425	PHYS 1321 or 1321/1121-
University Physics II	3	PHYS 2326 or 2426	PHYS 1322 or 1322/1122-
Creative Arts (3 hours)			
Choose one course from your current college's core approved list.			
Language, Philosophy, & Culture (3 hours)			
Choose one course from your current college's core approved list.			
Social & Behavioral Sciences (3 hours)^^			
Choose one course from your current college's core approved list.			
American History (6 Hours)			
United States History I	3	HIST 1301	HIST 1377
United States History II	3	HIST 1302	HIST 1378
Government/Political Sciences (6 hours)			
Federal Government	3	GOVT 2305	POLS 1337
Texas Government	3	GOVT 2306	POLS 1336
Writing in the Disciplines (3 hours)#			
Houston Community College, Lone Star College, and San Jacinto ONLY:			
Technical & Business Writing	3	ENGL 2311	ENGI 2304

II. MAJOR REQUIREMENTS (19-36 hours)*

Course Name	Hours	TCCNS	UH
All Majors			
General Chemistry I	4	CHEM 1311/1111 or 1411	CHEM 1331/1111
Calculus III	4	MATH 2415	MATH 2433
Introduction to Engineering	2	ENGR 1201	ENGI 1100
Programming for Engineers	3	ENGR 2304	ENGI 1331
Biomedical Engineering Majors			
Biology for Science Majors I	4	BIOL 1306/1106 or 1406	BIOL 1361/1161
Biology for Science Majors II	4	BIOL 1307/1107 or 1407	BIOL 1362/1162
General Chemistry II	4	CHEM 1312/1112 or 1412	CHEM 1332/1112
Organic Chemistry I	4	CHEM 2323/2123 or 2423	CHEM 3331/3221
Linear Algebra-	3	MATH 2318	MATH 2331
Differential Equations-	3	MATH 2320	MATH 3331
Chemical Engineering Majors			
General Chemistry II	4	CHEM 1312/1112 or 1412	CHEM 1332/1112
Organic Chemistry I	4	CHEM 2323/2123 or 2423	CHEM 3331/3221
Organic Chemistry II	3 or 4	CHEM 2325 or 2425	CHEM 3332
Civil Engineering Majors			
General Chemistry II	4	CHEM 1312/1112 or 1412	CHEM 1332/1112
Engineering Mechanics I: Statics	3	ENGR 2301	CIVE 2330
Engineering Mechanics II: Dynamics	3	ENGR 2302	MECE 3336
Biology for Science Majors I OR Physical Geology	3 or 4	BIOL 1306 or 1406 OR GEOL 1303 or 1403	BIOL 1361 OR GEOL 1330
Engineering Graphics#	3	ENGR 1304	TECH ELEC
Linear Algebra-	3	MATH 2318	MATH 2331
Differential Equations-	3	MATH 2320	MATH 3331

Electrical and Computer Engineering Majors			
University Physics Lab I	1	PHYS 2125	PHYS 1121
University Physics Lab II	1	PHYS 2126	PHYS 1122
Electrical Circuits I	4	ENGR 2305/2105 or 2405	ECE 2201
Linear Algebra-	3	MATH 2318	MATH 2331
Differential Equations-	3	MATH 2320	MATH 3331
Industrial Engineering Majors			
Linear Algebra-	3	MATH 2318	MATH 2331
Differential Equations-	3	MATH 2320	MATH 3331
Mechanical Engineering Majors [∞]			
General Chemistry II	4	CHEM 1312/1112 or 1412	CHEM 1332/1112
Engineering Mechanics I: Statics	3	ENGR 2301	CIVE 2330
Engineering Mechanics II: Dynamics	3	ENGR 2302	MECE 3336
Linear Algebra-	3	MATH 2318	MATH 2331
Differential Equations-	3	MATH 2320	MATH 3331
Petroleum Engineering Majors			
General Chemistry II	4	CHEM 1312/1112 or 1412	CHEM 1332/1112
Physical Geology	3 or 4	GEOL 1303 or 1403	GEOL 1330
Linear Algebra-	3	MATH 2318	MATH 2331
Differential Equations-	3	MATH 2320	MATH 3331

The Cullen College of Engineering has **several specific requirements** for admission:

Students with 15 or more hours completed post-high school graduation must meet the following GPA requirements:

- 3.25 in all college-level courses attempted.
- 3.0 in all college-level “Calculus-based” math courses attempted.
- 3.0 in all General Chemistry, Biology, Geology, and “Calculus-based” Physics course attempted.
- 3.0 in all Engineering courses attempted.
- 2.5 in all college-level English courses attempted.

All students must have credit for (can include AP credit):

- Calculus I & II
- General Chemistry I
- Calculus-based” Physics I

• Any grades earned for ENGR 1304 will NOT be used in the Engineering GPA calculation when being considered for admissions.

International students must also meet English Language Proficiency Requirements by meeting one of the following test score requirements TOEFL(PBT)of 550, TOEFL(iBT) of 79, or IELTS Overall of 6.5. International transfer students may be exempt from submitting a TOEFL or IELTS score by completing 30 or more semester credit hours from a U.S. accredited institution of higher education, including coursework equivalent to UH English Composition ENGL 1303 and ENGL 1304 with a grade of “C” or better and/or the completion of an AA or AS degree from an accredited institution of higher education.

-PHYS 1121 & PHYS 1122 is required only for the Electrical and Computer Engineering majors.

^^Electrical, Computer, & Chemical Engineering majors must take ECON 2302; this course also counts for your SBS core requirement.

#UH is partnered with the Houston Community College System, San Jacinto College District, and Lone Star College System. Students at these institutions can complete this requirement with the English course ENGL 2311 (TCCNS). All other transferring students must take the engineering course ENGI 2304 at UH.

-Credit for BOTH Linear Algebra and Differential Equations courses will satisfy the MATH 3321 Engineering Math degree requirement.

≠Credit for ENGR 1304≠ Engineering Graphics will satisfy the MECT 3341Computer-Aided Drafting I.

∞Mechanical majors should take a semester long computer-based drafting course, ENGR 1304∞ is recommended. This requirement is waived for students who completed one year of mechanical drawing or general drafting in the 10th, 11th, or 12th grade.

***TRANSFER CREDIT LIMIT:**

A maximum of 66 hours (grades C- or better) of 1000/2000 level transfer hours may be applied toward a UH degree. These are the 66 hours that best meet the degree requirements for your UH degree combination (Major, Double Major, Double Degree, and Minor).

- Students who currently attend UH should refer to their departmental advisor **BEFORE** taking courses at another college.
- Courses listed above are **suggested** courses for this degree. Other courses in combination may apply to a degree.
- See department or course catalog for further information on your degree plan.

Texas Undergraduate In-State Tuition Enrollment Cap

Under current rules, Texas resident undergraduate students who enrolled for the first time in a Texas public institution of higher education in fall 1999 or later may be charged a premium tuition rate after they reach an established enrollment cap. For details, see

http://www.uh.edu/provost/stu/stu_enrollcapqs.html