

COMPUTER SCIENCE - ASSOCIATE OF SCIENCE

This Program consists of the courses required in the first two years of a bachelor's degree in Computer Science. Students graduate with an Associate of Science Degree.

Students completing an Associate of Science (AS) degree at COM will meet the following requirements:

1. Complete a minimum of 60 semester credit hours that may be comprised of courses from the Core Curriculum, institutional requirements, and Fields of Study.
2. Maintain at least a 2.0 grade point average (GPA). Only credit-bearing College of the Mainland courses will be used to calculate a GPA.
3. Complete last 15 credit hours toward this degree at COM, with the exception of reverse transfer.
4. Satisfy TSI liability.

Full-Time Student Schedule

Course	Title	Semester Credit Hours
Semester #1		
PSYC 1300 or EDUC 1300	Learning Framework ¹ or Learning Framework	3
ENGL 1301	Composition I ¹	3
HIST 1301	U S History I ¹	3
MATH 2413	Calculus I ¹	4
Select from one of the following:		3
ECON 2301	Principles of Macroeconomics ¹	
ECON 2302	Principles of Microeconomics ¹	
SOCI 1301	Introduction to Sociology ¹	
Semester Credit Hours		16
Semester #2		
COSC 1336	Programming Fundamentals I ¹	3
ENGL 1302	Composition II ¹	3
HIST 1302	U S History II ¹	3
Select from one of the following:		4
BIOL 1406	Biology for Science Majors I ¹	
GEOL 1403	Physical Geology ¹	
PHYS 2425	University Physics I ¹	
Semester Credit Hours		13
Semester #3		
GOVT 2305	Federal Government (Federal Constitution & Topics) ¹	3
COSC 1437	Programming Fundamentals II ¹	4
Select from one of the following:		3
ENGL 2322	British Literature I ¹	
HUMA 1301	Introduction to the Humanities I ¹	
PHIL 1301	Introduction to Philosophy ¹	
Select from one of the following:		3
ARTS 1301	Art Appreciation ¹	
DRAM 1310	Theater Appreciation ¹	

MUSI 1306	Music Appreciation ¹	
SPCH 1315	Public Speaking ¹	3
Semester Credit Hours		16
Semester #4		
COSC 2336	Programming Fundamentals III ¹	3
COSC 2425	Computer Organization ¹	4
GOVT 2306	Texas Government (Texas Constitution & Topics) ¹	3
PHED 1164	Introduction to Physical Fitness and Wellness ¹	1
Select from one of the following:		4
BIOL 1407	Biology for Science Majors II ¹	
ENVR 1401	Environmental Science I ¹	
CHEM 1411	General Chemistry I ¹	
Semester Credit Hours		15
Total Semester Credit Hours		60

¹ Course(s) listed in the Texas Common Course Numbering System (<https://tcns.org/institution/id:14/yid:19/>)

Part-Time Student Schedule

Course	Title	Semester Credit Hours
Semester #1		
PSYC 1300 or EDUC 1300	Learning Framework ¹ or Learning Framework	3
ENGL 1301	Composition I ¹	3
HIST 1301	U S History I ¹	3
Semester Credit Hours		9
Semester #2		
MATH 2413	Calculus I ¹	4
ENGL 1302	Composition II ¹	3
Select from one of the following:		3
ECON 2301	Principles of Macroeconomics ¹	
ECON 2302	Principles of Microeconomics ¹	
SOCI 1301	Introduction to Sociology ¹	
Semester Credit Hours		10
Semester #3		
COSC 1336	Programming Fundamentals I ¹	3
HIST 1302	U S History II ¹	3
Select from one of the following:		4
BIOL 1406	Biology for Science Majors I ¹	
GEOL 1403	Physical Geology ¹	
PHYS 2425	University Physics I ¹	
Semester Credit Hours		10
Semester #4		
GOVT 2305	Federal Government (Federal Constitution & Topics) ¹	3
COSC 1437	Programming Fundamentals II ¹	4
Select from one of the following:		3
ARTS 1301	Art Appreciation ¹	
DRAM 1310	Theater Appreciation ¹	

MUSI 1306	Music Appreciation ¹	
Semester Credit Hours		10
Semester #5		
COSC 2336	Programming Fundamentals III ¹	3
GOVT 2306	Texas Government (Texas Constitution & Topics) ¹	3
Select from one of the following:		3
HUMA 1301	Introduction to the Humanities I ¹	
PHIL 1301	Introduction to Philosophy ¹	
ENGL 2322	British Literature I ¹	
Semester Credit Hours		9
Semester #6		
COSC 2425	Computer Organization ¹	4
SPCH 1315	Public Speaking ¹	3
Semester Credit Hours		7
Semester #7		
PHED 1164	Introduction to Physical Fitness and Wellness ¹	1
Select from one of the following:		4
BIOL 1407	Biology for Science Majors II ¹	
ENVR 1401	Environmental Science I ¹	
CHEM 1411	General Chemistry I ¹	
Semester Credit Hours		5
Total Semester Credit Hours		60

¹ Course(s) listed in the Texas Common Course Numbering System (<https://tcns.org/institution/id:14/yid:19/>)

Transfer Information - Computer Science

Important Notes: The schools represented here are only a small sample of transfer options. Information is subject to change, and this suggested pathway is a guide, not a contract. Students should use this in consultation with a COM advisor, COM catalog, Texas Pathways state-wide transfer guidelines, and advisor at the transfer institution.

- University of Houston - Clear Lake (BS CIS) (p. 2)
- University of Houston (BS Computer Science) (p. 2)
- University of Houston - Downtown (BS Computer Science) (p. 3)
- Texas State University - San Marcos (BS Computer Science) (p. 3)
- Texas A&M University (BS Computer Science) (p. 4)
- University of Texas - Austin (BS Computer Science, Option 1) (p. 4)

University of Houston - Clear Lake (BS CIS)

Course	Title	Semester Credit Hours
Semester #1		
PSYC 1300 or EDUC 1300	Learning Framework or Learning Framework	3
ENGL 1301	Composition I	3
HIST 1301	U S History I	3
MATH 2413	Calculus I	4
Select from one of the following:		3
ECON 2301	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	

PSYC 2301	General Psychology	
SOCI 1301	Introduction to Sociology	
SOCI 1306	Social Problems	
Semester Credit Hours		16
Semester #2		
COSC 1336	Programming Fundamentals I	3
ENGL 1302	Composition II	3
HIST 1302	U S History II	3
Select from one of the following:		4
BIOL 1406	Biology for Science Majors I	
GEOL 1403	Physical Geology	
PHYS 2425	University Physics I	
Semester Credit Hours		13
Semester #3		
GOVT 2305	Federal Government (Federal Constitution & Topics)	3
COSC 1437	Programming Fundamentals II	4
Select from one of the following:		3
HUMA 1301	Introduction to the Humanities I	
PHIL 1301	Introduction to Philosophy	
SPAN 2311	Intermediate Spanish I	
ARTS 1301	Art Appreciation	3
SPCH 1315	Public Speaking	3
Semester Credit Hours		16
Semester #4		
COSC 2336	Programming Fundamentals III	3
COSC 2425	Computer Organization	4
GOVT 2306	Texas Government (Texas Constitution & Topics)	3
PHED 1164	Introduction to Physical Fitness and Wellness	1
Select from one of the following:		4
BIOL 1407	Biology for Science Majors II	
ENVR 1401	Environmental Science I	
CHEM 1411	General Chemistry I	
Semester Credit Hours		15
Total Semester Credit Hours		60

University of Houston (BS Computer Science)

Course	Title	Semester Credit Hours
Semester #1		
PSYC 1300 or EDUC 1300	Learning Framework or Learning Framework	3
ENGL 1301	Composition I	3
HIST 1301	U S History I	3
MATH 2413	Calculus I	4
Select from one of the following:		3
ECON 2301	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	
PSYC 2301	General Psychology	

SOCI 1301	Introduction to Sociology	
Semester Credit Hours		16
Semester #2		
COSC 1336	Programming Fundamentals I	3
ENGL 1302	Composition II	3
HIST 1302	U S History II	3
Select from one of the following:		4
BIOL 1406	Biology for Science Majors I	
GEOL 1403	Physical Geology	
PHYS 2425	University Physics I	
Semester Credit Hours		13
Semester #3		
GOVT 2305	Federal Government (Federal Constitution & Topics)	3
COSC 1437	Programming Fundamentals II	4
PHIL 1301	Introduction to Philosophy	3
or PHIL 2306	or Introduction to Ethics	
ARTS 1304	Art History II	3
or DRAM 1310	or Theater Appreciation	
SPCH 1315	Public Speaking	3
Semester Credit Hours		16
Semester #4		
COSC 2336	Programming Fundamentals III	3
COSC 2425	Computer Organization	4
GOVT 2306	Texas Government (Texas Constitution & Topics)	3
PHED 1164	Introduction to Physical Fitness and Wellness	1
CHEM 1411	General Chemistry I	4
Semester Credit Hours		15
Total Semester Credit Hours		60

University of Houston - Downtown (BS Computer Science)

Course	Title	Semester Credit Hours
Semester #1		
PSYC 1300	Learning Framework	3
or EDUC 1300	or Learning Framework	
ENGL 1301	Composition I	3
HIST 1301	U S History I	3
MATH 2413	Calculus I	4
PSYC 2301	General Psychology	3
or SOCI 1301	or Introduction to Sociology	
Semester Credit Hours		16
Semester #2		
COSC 1336	Programming Fundamentals I	3
ENGL 1302	Composition II	3
HIST 1302	U S History II	3
Select from one of the following:		4
BIOL 1406	Biology for Science Majors I	
GEOL 1403	Physical Geology	

PHYS 2425	University Physics I	
Semester Credit Hours		13
Semester #3		
GOVT 2305	Federal Government (Federal Constitution & Topics)	3
COSC 1437	Programming Fundamentals II	4
Select from one of the following:		3
ENGL 2333	World Literature II	
HUMA 1301	Introduction to the Humanities I	
ENGL 2322	British Literature I	
HUMA 1302	Intro to the Humanities II	
or ARTS 1303	or Art History I	
ARTS 1301	Art Appreciation	3
or ARTS 1303	or Art History I	
SPCH 1315	Public Speaking	3
Semester Credit Hours		16
Semester #4		
COSC 2336	Programming Fundamentals III	3
COSC 2425	Computer Organization	4
GOVT 2306	Texas Government (Texas Constitution & Topics)	3
PHED 1164	Introduction to Physical Fitness and Wellness	1
BIOL 1407	Biology for Science Majors II	4
or CHEM 1411	or General Chemistry I	
Semester Credit Hours		15
Total Semester Credit Hours		60

Texas State University - San Marcos (BS Computer Science)

Course	Title	Semester Credit Hours
Semester #1		
PSYC 1300	Learning Framework	3
or EDUC 1300	or Learning Framework	
ENGL 1301	Composition I	3
HIST 1301	U S History I	3
MATH 2413	Calculus I	4
Select from one of the following:		3
ECON 2302	Principles of Microeconomics	
PSYC 2301	General Psychology	
SOCI 1301	Introduction to Sociology	
Semester Credit Hours		16
Semester #2		
COSC 1336	Programming Fundamentals I	3
ENGL 1302	Composition II	3
HIST 1302	U S History II	3
Select from one of the following:		4
BIOL 1406	Biology for Science Majors I	
GEOL 1403	Physical Geology	
PHYS 2425	University Physics I	
Semester Credit Hours		13

Semester #3		
GOVT 2305	Federal Government (Federal Constitution & Topics)	3
COSC 1437	Programming Fundamentals II	4
PHIL 1301 or PHIL 2306	Introduction to Philosophy or Introduction to Ethics	3
ARTS 1303 or ARTS 1304	Art History I or Art History II	3
SPCH 1315	Public Speaking	3
Semester Credit Hours		16
Semester #4		
COSC 2336	Programming Fundamentals III	3
COSC 2425	Computer Organization	4
GOVT 2306	Texas Government (Texas Constitution & Topics)	3
PHED 1164	Introduction to Physical Fitness and Wellness	1
BIOL 1407 or CHEM 1411	Biology for Science Majors II or General Chemistry I	4
Semester Credit Hours		15
Total Semester Credit Hours		60

Texas A&M University (BS Computer Science)

Course	Title	Semester Credit Hours
Semester #1		
PSYC 1300 or EDUC 1300	Learning Framework or Learning Framework	3
ENGL 1301	Composition I	3
HIST 1301	U S History I	3
MATH 2413	Calculus I	4
Select from one of the following:		3
ECON 2301	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	
PSYC 2301	General Psychology	
SOCI 1301	Introduction to Sociology	
Semester Credit Hours		16
Semester #2		
COSC 1336	Programming Fundamentals I	3
ENGL 1302	Composition II	3
HIST 1302	U S History II	3
PHYS 2425	University Physics I	4
Semester Credit Hours		13
Semester #3		
GOVT 2305	Federal Government (Federal Constitution & Topics)	3
COSC 1437	Programming Fundamentals II	4
SPCH 1315	Public Speaking	3
Select from one of the following:		3
ENGL 2332	World Literature I	
ENGL 2333	World Literature II	
ENGL 2327	American Literature I	
ENGL 2328	American Literature II	
ENGL 2322	British Literature I	

ENGL 2323	British Literature II	
PHIL 1301	Introduction to Philosophy	
SPAN 2311	Intermediate Spanish I	
SPAN 2312	Intermediate Spanish II	
Select from one of the following:		3
ARTS 1303	Art History I	
ARTS 1304	Art History II	
MUSI 1306	Music Appreciation	
SPCH 1315	Public Speaking	3
Semester Credit Hours		16
Semester #4		
COSC 2336	Programming Fundamentals III	3
COSC 2425	Computer Organization	4
GOVT 2306	Texas Government (Texas Constitution & Topics)	3
PHED 1164	Introduction to Physical Fitness and Wellness	1
CHEM 1411	General Chemistry I	4
Semester Credit Hours		15
Total Semester Credit Hours		60

University of Texas - Austin (BS Computer Science, Option 1)

Course	Title	Semester Credit Hours
Semester #1		
PSYC 1300 or EDUC 1300	Learning Framework or Learning Framework	3
ENGL 1301	Composition I	3
HIST 1301	U S History I	3
MATH 2413	Calculus I	4
Social/Behavioral Sciences (p. 5)	Select from Core Curriculum	3
Semester Credit Hours		16
Semester #2		
COSC 1336	Programming Fundamentals I	3
ENGL 1302	Composition II	3
HIST 1302	U S History II	3
PHYS 2425	University Physics I	4
Semester Credit Hours		13
Semester #3		
GOVT 2305	Federal Government (Federal Constitution & Topics)	3
COSC 1437	Programming Fundamentals II	4
SPCH 1315	Public Speaking	3
Language, Philosophy and Culture (p. 5)		Select from Core Curriculum
Creative Arts (p. 5)	Select from Core Curriculum	3
Semester Credit Hours		16

Semester #4

COSC 2336	Programming Fundamentals III	3
COSC 2425	Computer Organization	4
GOVT 2306	Texas Government (Texas Constitution & Topics)	3
PHED 1164	Introduction to Physical Fitness and Wellness	1
CHEM 1411	General Chemistry I	4
Semester Credit Hours		15
Total Semester Credit Hours		60

Core Curriculum

Core Component	Course Selection	Minimum Hours Required
Language, Philosophy, and Culture	1 course from the following list: ENGL 2322, ENGL 2323, ENGL 2327, ENGL 2328, ENGL 2332, ENGL 2333, ENGL 2341, ENGL 2351; HUMA 1301, HUMA 1302; PHIL 1301, PHIL 1304, PHIL 2306; SPAN 2311, SPAN 2312	3
Creative Arts	1 course from the following list: ARTS 1301, ARTS 1303, ARTS 1304, ARTS 1313; DRAM 1310, DRAM 2366; MUSI 1306, MUSI 1307, MUSI 1310	3
Social/Behavioral Sciences	1 course from the following list: ECON 2301, ECON 2302; PSYC 2301, PSYC 2314; SOCI 1301, SOCI 1306	3