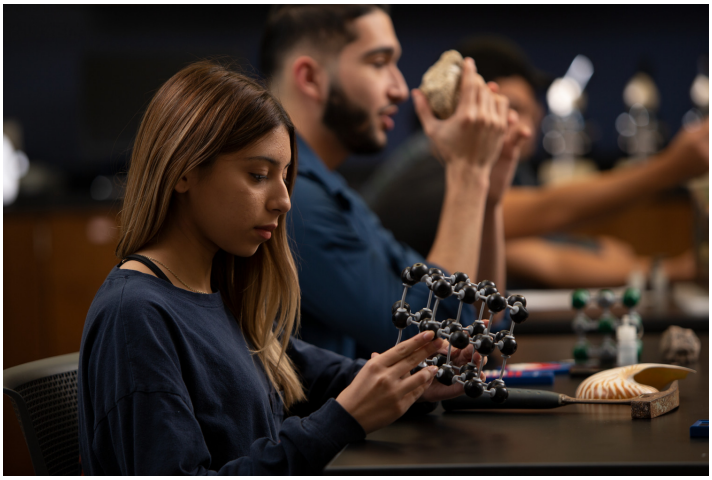
ENGINEERING, ASSOCIATE OF SCIENCE IN ENGINEERING



Engineer Your Path to Success

Everything is engineered. Every building, bridge, highway, pipeline, vehicle, toy, computer, athletic shoe – every manmade object is taken from idea to reality by engineers. San Jacinto College offers an Associate of Science in Engineering (ASE) degree designed to transfer to Texas public universities that includes courses in physics, chemistry, math, and engineering.

With this foundation, you'll shape the future of space travel or develop our next great energy source. You may secure the world's supply of fresh water or build the next Olympic stadium. An engineering degree gives you unlimited options to pursue ambitious goals and succeed.

An ASE from San Jacinto College:

- promotes maximum **transferability** for students and offers courses based on a particular field of engineering and the institution to which they will transfer;
- helps students develop **skills** for the management of natural resources, environmental restoration, and the design, installation, and improvement of integrated systems of business and manufacturing in a variety of fields; and
- prepares students for **careers** in biomedical engineering, chemical engineering, civil engineering, computer and electrical engineering, industrial engineering, mechanical engineering, petroleum engineering, and more.

Additional Information

San Jacinto College participates in the Voluntary Mechanical Engineering Transfer Compact. The Transfer Compact represents 77 percent of the Texas public universities offering mechanical engineering and 75 percent of the Texas public community or technical colleges offering lower-division engineering courses. The Compact guarantees transfer credit for community college students accepted into university mechanical engineering programs.

In order to transfer to a four-year institution, students must meet any and all entrance requirements of the receiving institution, including grade point averages and/or testing requirements.

Career Opportunities

Graduates of this program are prepared to become engineering professionals working in a wide range of fields such as designing water systems, highways, manufacturing systems, piping systems for chemical plants, bridges, computers, and even toy making.

Earning Potential

Chemical engineer: $173,343[1]

Environmental engineer: $131,655[1]

Mechanical engineer: $125,852[1]

Civil engineer: $104,913[1]

Aerospace engineer: 133,115[1]

[1] Source: www.texaswages.com (http://texaswages.com) annual median salary after earning a bachelor's degree, Gulf Coast region, 2021

Campuses

Central Campus

Generation Park Campus

North Campus

South Campus

The Associate of Science in Engineering (ASE) is a collegiate degree approved by the Texas Higher Education Coordinating Board (THECB) consisting of lower-division courses intended for transfer to baccalaureate programs that lead to an engineering degree. The ASE, as defined by THECB, is fully transferrable to Texas public universities that participate in the *Tuning In Texas* articulation agreement (transfer compact).

The College recommends students seek the advice of an educational planner and an engineering faculty member or Department Chair. Students who complete the ASE will be required to meet any and all entrance requirements of the receiving institution, including grade point averages and/or testing requirements.

Plan of Study (Degree Plan)

2ENGINEER

First Term		Credits
MATH 2413	Calculus I (020)	4
CHEM 1311 & CHEM 1111	General Chemistry I (lecture) and General Chemistry I (lab) (030, 090)	4
ENGR 1201	Introduction to Engineering	2
ENGL 1301	Composition I (010)	3
GOVT 2305	Federal Government (Federal Constitution and Topics)	3
	Credits	**16**

Second Term		
MATH 2414	Calculus II	4
PHYS 2325 & PHYS 2125	University Physics I (lecture) and University Physics I (lab) (030, 090)	4
GOVT 2306	Texas Government (Texas Constitution and Topics)	3
ENGL 1302 or ENGL 2311	Composition II or Technical and Business Writing	3
Select one of the following:		3
CHEM 1312 & CHEM 1112	General Chemistry II (lecture) and General Chemistry II (lab)	
ENGR 1304	Engineering Graphics I	
	Credits	**17**
Third Term		
MATH 2415	Calculus III	4
PHYS 2326 & PHYS 2126	University Physics II (lecture) and University Physics II (lab) (090)	4
ENGR 2304	Programming for Engineers	3
HIST 1301	United States History I (060)	3
Select one of the following:		3
ENGR 2301	Engineering Mechanics - Statics	
CHEM 2323 & CHEM 2123	Organic Chemistry I (lecture) and Organic Chemistry I (lab)	
	Credits	**17**
Fourth Term		
MATH 2320	Differential Equations	3
ENGR 2305 & ENGR 2105	Electrical Circuits I and Electrical Circuits I Laboratory	4
HIST 1302	United States History II (060)	3
Select one of the following:		3
CHEM 2325 & CHEM 2125	Organic Chemistry II (lecture) and Organic Chemistry II (lab)	
ENGR 2308	Engineering Economics	
ENGR 2302	Engineering Mechanics - Dynamics [1]	
GEOL 1303 or ENGL 2311	Physical Geology (lecture) or Technical and Business Writing	
MATH 2318	Linear Algebra	3
	Credits	**16**
	Total Credits	**66**

As with all transfer degrees, students should contact the upper-level institution regarding baccalaureate degree requirements. The educational planners and academic advisors can assist with this.

[1] Students may choose to take CHEM 1312 General Chemistry II (lecture)/CHEM 1112 General Chemistry II (lab) instead of ENGR 2302 Engineering Mechanics - Dynamics.

If you do not see your transfer school, please follow the Plan of Study. (p. 1) For more information, contact an Admissions Advisor. Please speak to an advisor at San Jacinto College and the transfer institution to ensure this Transfer Plan is accurate and complete.

Engineering

Transfer Plans

- ## ANY UNIV IN STATE COMPACT, Engineering, BS
  ## Any University in State Compact
  ## Full Time

ANY UNIV IN STATE COMPACT, Engineering MAP

For college-ready students seeking a Engineering Science AS at San Jacinto College, transferring to ANY seeking a BS in ANY UNIV IN STATE COMPACT, Engineering.

Course	Title	Credits
First Year		
First Term		
MATH 2413	Calculus I	4
CHEM 1311 & CHEM 1111	General Chemistry I (lecture) and General Chemistry I (lab)	4
ENGR 1201	Introduction to Engineering	2
ENGL 1301	Composition I	3
HIST 1301	United States History I	3
	Credits	**16**
Second Term		
MATH 2414	Calculus II	4
PHYS 2325 & PHYS 2125	University Physics I (lecture) and University Physics I (lab)	4
ENGL 1302 or ENGL 2311	Composition II or Technical and Business Writing	3
HIST 1302	United States History II	3
Choose one of the following:		3
ENGR 1304	Engineering Graphics I	
ENGR 2308	Engineering Economics	
ENGL 2311	Technical and Business Writing [1]	
ENGR 2301	Engineering Mechanics - Statics	
ENGR 2302	Engineering Mechanics - Dynamics	
	Credits	**17**
Second Year		
First Term		
MATH 2415	Calculus III	4
PHYS 2326 & PHYS 2126	University Physics II (lecture) and University Physics II (lab)	4
ENGR 2304	Programming for Engineers	3
GOVT 2305	Federal Government (Federal Constitution and Topics)	3
Choose one of the 3 SCH options listed in First Year, Second Term. [2]		3
	Credits	**17**
Second Term		
MATH 2320	Differential Equations	3
MATH 2318	Linear Algebra	3
GOVT 2306	Texas Government (Texas Constitution and Topics)	3
Choose one of the following:		4
ENGR 2305 & ENGR 2105	Electrical Circuits I and Electrical Circuits I Laboratory	

CHEM 1312 & CHEM 1112	General Chemistry II (lecture) and General Chemistry II (lab)	
CHEM 2323 & CHEM 2123	Organic Chemistry I (lecture) and Organic Chemistry I (lab)	
Choose one of the 3 SCH options listed in the First Year, Second Term. [2]		3
	Credits	**16**
	Total Credits	**66**

[1] This course does not transfer to UHCL.
[2] Students may choose one of the following 3 SCH courses not taken previously: ENGR 1304 Engineering Graphics I; ENGR 2308 Engineering Economics; ENGL 2311 Technical and Business Writing; ENGR 2301 Engineering Mechanics - Statics; or ENGR 2302 Engineering Mechanics - Dynamics.

ANY UNIV IN STATE COMPACT, Engineering, BS Any University in State Compact Part Time

ANY UNIV IN STATE COMPACT, Engineering MAP

For college-ready students seeking a Engineering Science AS at San Jacinto College, transferring to ANY seeking a BS in ANY UNIV IN STATE COMPACT, Engineering.

Course	Title	Credits
First Year		
First Term		
ENGR 1201	Introduction to Engineering	2
ENGL 1301	Composition I	3
HIST 1301	United States History I	3
	Credits	**8**
Second Term		
MATH 2413	Calculus I	4
CHEM 1311 & CHEM 1111	General Chemistry I (lecture) and General Chemistry I (lab)	4
	Credits	**8**
Second Year		
First Term		
MATH 2414	Calculus II	4
PHYS 2325 & PHYS 2125	University Physics I (lecture) and University Physics I (lab)	4
	Credits	**8**
Second Term		
PHYS 2326 & PHYS 2126	University Physics II (lecture) and University Physics II (lab)	4
ENGL 1302 or ENGL 2311	Composition II [1] or Technical and Business Writing	3
	Credits	**7**
Third Year		
First Term		
MATH 2415	Calculus III	4
HIST 1302	United States History II	3
ENGR 2304	Programming for Engineers	3
	Credits	**10**
Second Term		
GOVT 2305	Federal Government (Federal Constitution and Topics)	3
Choose one of the following 3 SCH options:		3
ENGR 1304	Engineering Graphics I	
ENGR 2308	Engineering Economics	
ENGL 2311	Technical and Business Writing [2]	
ENGR 2301	Engineering Mechanics - Statics	
ENGR 2302	Engineering Mechanics - Dynamics	
Choose one of the 3 SCH options not previously taken from the list above.		3
	Credits	**9**
Fourth Year		
First Term		
MATH 2320	Differential Equations	3
Select from 3 SCH course option in Third Year, Second Term. [3]		3
	Credits	**6**
Second Term		
GOVT 2306	Texas Government (Texas Constitution and Topics)	3
MATH 2318	Linear Algebra	3
Choose one of the following 4 SCH options:		4
ENGR 2305 & ENGR 2105	Electrical Circuits I and Electrical Circuits I Laboratory	
CHEM 1312 & CHEM 1112	General Chemistry II (lecture) and General Chemistry II (lab)	
CHEM 2323 & CHEM 2123	Organic Chemistry I (lecture) and Organic Chemistry I (lab)	
CHEM 2325 & CHEM 2125	Organic Chemistry II (lecture) and Organic Chemistry II (lab)	
GEOL 1303 & GEOL 1103	Physical Geology (lecture) and Physical Geology (lab)	
	Credits	**10**
	Total Credits	**66**

[1] Make selection based on the receiving institution.
[2] Select based on intended major and transfer institution.
[3] Students may choose one of the following 3 SCH courses not taken previously: ENGR 1304 Engineering Graphics I; ENGR 2308 Engineering Economics; ENGL 2311 Technical and Business Writing; ENGR 2301 Engineering Mechanics - Statics; or ENGR 2302 Engineering Mechanics - Dynamics.

Lamar, Electrical Engineering, BS
Lamar University
Full Time

Lamar, Electrical Engineering MAP

For college-ready students seeking a Engineering Science AS at San Jacinto College, transferring to Lamar seeking a BS in Lamar, Electrical Engineering.

Course	Title	Credits
First Year		
First Term		
MATH 2413	Calculus I	4
CHEM 1311 & CHEM 1111	General Chemistry I (lecture) and General Chemistry I (lab)	4
ENGR 1201	Introduction to Engineering	2
ENGL 1301	Composition I	3
HIST 1301	United States History I	3
	Credits	**16**
Second Term		
MATH 2414	Calculus II	4
PHYS 2325 & PHYS 2125	University Physics I (lecture) and University Physics I (lab)	4
HIST 1302	United States History II	3
ENGL 2311	Technical and Business Writing	3
PHIL 2306	Introduction to Ethics	3
	Credits	**17**
Second Year		
First Term		
MATH 2415	Calculus III	4
PHYS 2326 & PHYS 2126	University Physics II (lecture) and University Physics II (lab)	4
ECON 2301	Principles of Macroeconomics	3
GOVT 2305	Federal Government (Federal Constitution and Topics)	3
MATH 2318	Linear Algebra	3
	Credits	**17**
Second Term		
MATH 2320	Differential Equations	3
ENGR 2305 & ENGR 2105	Electrical Circuits I and Electrical Circuits I Laboratory	4
GOVT 2306	Texas Government (Texas Constitution and Topics)	3
ARTS 1301	Art Appreciation	3
ENGR 2308	Engineering Economics	3
	Credits	**16**
	Total Credits	**66**

Lamar, Electrical Engineering, BS
Lamar University
Part Time

Lamar, Electrical Engineering MAP

For college-ready students seeking a Engineering Science AS at San Jacinto College, transferring to Lamar seeking a BS in Lamar, Electrical Engineering.

Course	Title	Credits
First Year		
First Term		
MATH 2413	Calculus I	4
ENGR 1201	Introduction to Engineering	2
ENGL 1301	Composition I	3
	Credits	**9**
Second Term		
CHEM 1311 & CHEM 1111	General Chemistry I (lecture) and General Chemistry I (lab)	4
HIST 1301	United States History I	3
	Credits	**7**
Second Year		
First Term		
MATH 2414	Calculus II	4
ENGL 2311	Technical and Business Writing	3
PHIL 2306	Introduction to Ethics	3
	Credits	**10**
Second Term		
PHYS 2325 & PHYS 2125	University Physics I (lecture) and University Physics I (lab)	4
HIST 1302	United States History II	3
	Credits	**7**
Third Year		
First Term		
PHYS 2326 & PHYS 2126	University Physics II (lecture) and University Physics II (lab)	4
MATH 2318	Linear Algebra	3
	Credits	**7**
Second Term		
MATH 2415	Calculus III	4
ECON 2301	Principles of Macroeconomics	3
GOVT 2305	Federal Government (Federal Constitution and Topics)	3
	Credits	**10**
Fourth Year		
First Term		
MATH 2320	Differential Equations	3
GOVT 2306	Texas Government (Texas Constitution and Topics)	3
ARTS 1301	Art Appreciation	3
	Credits	**9**

Second Term		
ENGR 2305 & ENGR 2105	Electrical Circuits I and Electrical Circuits I Laboratory	4
ENGR 2308	Engineering Economics	3
	Credits	**7**
	Total Credits	**66**

No matching transfer programs found. Reset your selections and try again.