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) that is designed to transfer to Texas public universities and 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.

Type: Academic

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 - $129,153
Environmental engineer - $113,675
Mechanical engineer - $99,721
Civil engineer - $104,770

Source: [www.texaswages.com](https://www.texaswages.com) annual median salary, Gulf Coast, 2017

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. 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.

### All Campuses

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<th>Credits</th>
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<td>MATH 2413</td>
<td>Calculus I (020)</td>
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<tr>
<td>CHEM 1311 &amp; CHEM 1111</td>
<td>General Chemistry I (lecture) and General Chemistry I (lab) (030, 090)</td>
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<tr>
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<td>Introduction to Engineering</td>
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<td>GOVT 2305</td>
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<td>ENGL 2311 or ENGL 1302</td>
<td>Technical and Business Writing (recommended (010)) or Composition II</td>
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<td>CHEM 1312 &amp; CHEM 1112 or ENGR 1304</td>
<td>General Chemistry II (lecture) or Engineering Graphics I</td>
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<td>ENGR 2304</td>
<td>Programming for Engineers</td>
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Type: Academic
HIST 1301 United States History I (060)  3
Select one of the following:  3-4
  ENGR 2301 Engineering Mechanics - Statics
  CHEM 2323 Organic Chemistry I (lecture)
  & CHEM 2123 and Organic Chemistry I (lab)
  COSC 1337 Programming Fundamentals II

Credits  17-18

Fourth Term
MATH 2320 Differential Equations  3
ENGR 2305 Electrical Circuits I  4
& ENGR 2105 and Electrical Circuits I Laboratory
HIST 1302 United States History II (060)  3
GOVT 2306 Texas Government (Texas Constitution and Topics) (070)  3
Select one of the following:  3-4
  ENGR 2302 Engineering Mechanics - Dynamics
  CHEM 2325 Organic Chemistry II (lecture)
  & CHEM 2125 and Organic Chemistry II (lab)
  ENGR 2308 Engineering Economics

Credits  16-17
Total Credits  66-68

1 This course meets the computer literacy requirement for engineering science degree.

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.