

# Engineering Science

## Associate in Science Degree

This program prepares students for transfer, as juniors, into baccalaureate engineering programs, including civil, mechanical, chemical, electrical, aerospace, petroleum, industrial, and nuclear engineering. Two High School Mathematics Courses or their equivalent, and one year of a laboratory science are required. Chemistry and Physics are recommended.

**Total Credit Hours: 66 - 67**

### First Semester

CF100 College Foundations Seminar	1.0
CH141 General Chemistry 1	4.0
CI130 Programming In C++	3.0
EN101 English 1: Composition	3.0
ES151 Introduction to Engineering	2.0
MA151 Calculus 1	4.0
Physical Education Elective	0.5

### Second Semester

Social Science Elective (a)	3.0
EN102 English 2:Idea&Values Lit	3.0
ES175 Engineering Sci Design	3.0
MA152 Calculus 2	4.0
PH261 Engineering Physics 1	4.0
Physical Education Elective	0.5

### Third Semester

ES271 Engineering Statics	3.0
Restricted Elective (b)	4.0
MA253 Calculus 3	4.0
PH262 Engineering Physics 2	4.0
Physical Education Elective	0.5

### Fourth Semester

MA260 Differential Equations	3.0
ES272 Engineering Dynamics	3.0
Social Science Elective (a)	3.0
Restricted Elective (c)	3.0 - 4.0
Restricted Elective (c)	3.0 - 4.0
Physical Education Elective	0.5

(a) AN101 Biological Anthropology, BM101 Survey of Economics, HI101 History of Civilization 1, PS101 American National Government, GE101 Essentials of World Geography or SO101 Introduction to Sociology.

(b) CT151 Surveying 1, ES291-Electrical Circuits 1, BI141 General Biology 1, CH142 General Chemistry 2 (4.0 Cr)

(c) ES292 Electrical Circuits 2, ES261 Mechanics of Materials, ES281 Thermodynamics, BI142 General Biology 2, MA280 Linear Algebra, PH265--Modern Physics & Thermodynamics, CH142 General Chemistry 2

## Student transfer options:

<b>Mechanical Engineering student option (66 Credits)</b>	<ul style="list-style-type: none"> <li>• Students should take ES291 for Restricted elective (b).</li> <li>• Students should take ES261 and ES281 or MA280 for Restricted electives (c).</li> </ul>
<b>Civil Engineering student option (66 Credits)</b>	<ul style="list-style-type: none"> <li>• Students should take CT151 for Restricted elective (b).</li> <li>• Students should take ES261 and ES281 or MA280 for Restricted electives (c).</li> </ul>
<b>Electrical Engineering student option (66-67 Credits)</b>	<ul style="list-style-type: none"> <li>• Students should take ES291 for Restricted elective (b).</li> <li>• Students should take MA280, and PH265 or CH142 for Restricted electives (c).</li> </ul>
<b>Environmental Engineering student option (66 Credits)</b>	<ul style="list-style-type: none"> <li>• Students should take CH142 for Restricted elective (b).</li> <li>• Students should take ES261, and one of (BI141, ES281, or PH265 for Restricted electives (c)).</li> </ul>