

Pre-Engineering

A Program of Study within the Edmonds School District



This Program of Study is connected to the following field(s):

- Arts and Communications
- Business and Marketing
- Engineering and Technology
- Health and Human Services
- Science and Natural Resources

This Program of Study reinforces the following Academic Skills:

- Reading
- Writing
- Mathematics
- Science
- Visual Arts
- Health/Fitness

Description

The Pre-Engineering program of study introduces students to the growing and high demand fields of engineering and technology through the national recognized Project Lead the Way pre-engineering program. Using state of the art software and equipment, students will design, build, calculate, test and analyze - the kind of work that excites and engages technically-minded people. Students will also have opportunity to join the FIRST Robotics Team and compete in regional and national competitions. Students who complete this program, along with advanced math and science classes, will be well prepared for continued education and careers in engineering and technical fields.

Program of Study Courses (2.0 credits from the following)

Courses within this Program of Study and the schools where they are available are listed below. Courses with an (ID) designation are Intradistrict Course available to all district Juniors and Seniors. Courses with two or more subject areas listed are Equivalency Courses which can satisfy more than one subject requirement. [For information about Equivalency Courses, click here.](#)

<u>Course(s)</u>	<u>Credits</u>	<u>Subject Area(s)</u>	<u>EW</u>	<u>LH</u>	<u>MD</u>	<u>MT</u>	<u>SL</u>
IAR115 Intro to Engineering Design	1.0	CTE, Art, Math				■	
IAR311 IED/Geometry	2.0	CTE, Art, Math				■	
IAR135 Principles of Engineering	1.0	CTE, Science				■	
IAR725 Digital Electronics	1.0	CTE				■	
IAR265 Robotics	.5	CTE, Math, Sci.				■	

Post-High School Training Connections

The following courses within this program of study are articulated for college credit with the Engineering program at Edmonds Community College (EdCC). College credits and courses which may be earned are listed below.

<u>HS Course</u>	<u>Credits</u>	<u>College</u>	<u>College Courses Earned</u>
IAR265 Robotics	5	EdCC	CEN176
IAR135 Principles of Engineering	5	EdCC	ENGR255
IAR115 Intro to Engineering Design	5	EdCC	ENGR155
IAR311 IED/Geometry	5	EdCC	ENGR155

Occupational Information

The following represent occupations within this field and their average annual earnings and openings based on data from the Washington State Employment Security Department. For more information about these and other occupations within this field, go to www.wois.org.

<u>Occupations</u>	<u>Openings</u>	<u>Earnings</u>
Aerospace Engineers	889	\$90,159 yr.
Civil Engineers	583	\$74,487 yr.
Engineering Managers	253	\$124,329 yr.
Mechanical Engineers	242	\$80,520 yr.
Industrial Engineers	190	\$74,022 yr.
Electrical Engineers	128	\$79,419 yr.
Civil Engineering Technicians	99	\$50,918 yr.
Biomedical Engineers	21	\$76,890 yr.
Avionics Technicians	21	\$43,355 yr.

For more information about this Program of Study, contact the Instructor or your School Counselor or Career Center Specialist