



Engineering - General

Major Preparation Sheet 2017-2018

Where does my path start?

You will complete an Associate of Science-Transfer (AS-T) Track 2 at Shoreline.

Use the AS-T Track 2 Degree Planning Guide, with this guide, to understand the requirements for graduation.

Select the area(s) of engineering you would like to pursue and consult those Major Preparation Sheet(s).

Once you complete your Shoreline degree, you can transfer to a four-year school to earn a Bachelor of Science (B.S.) in Engineering.

Engineering – What is it?

Engineering applies mathematics, science and technology to design, test, manufacture and improve new products, materials, structures and processes. Engineers interface directly with business and industry, and often specialize in specific areas to include Aeronautical Engineering, Bioengineering, Chemical, Civil and Environmental, Computer, Electrical, Industrial, Mechanical, Materials Science and Bioresource Engineering.

Areas of study in Engineering:

Calculus, Chemistry, Physics, Statics, Dynamics, Thermodynamics, Mechanics of Materials, Electronic Circuits, Engineering Problem Solving, Manufacturing Processes, Project Design, Project Management, Product Safety, Quality Control and Professional Ethics.

Where can I go for help?

Program Faculty Advisors

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General Academic Advising

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International Student Academic Advising

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206-546-4697
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Career Planning

www.shoreline.edu/job-career-services/

For course information and entry codes, contact:

engineeringadvising@shoreline.edu
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What can I do with a Bachelor's Degree in Engineering?

Engineers develop strong technical, problem solving, critical thinking and communication skills that apply to a variety of career fields, including research and development, product design, project management, product inspection, teaching, sales, manufacturing and consulting.

Potential employers include: Engineering firms, consulting firms, manufacturing companies, government agencies, colleges and universities, business and industry. For more, please visit <http://www.shoreline.edu/counseling-center/career-counseling.aspx>.

What courses should I take?*

General Education Requirements (18-20 Credits)	<p>Required: ENGL& 101 (A); MATH& 151 (A); One course in Multicultural Understanding and one of the following: ENGL& 102 (A), 230 (W,S) or CMST& 101 (A);</p>
Humanities/Social Sciences (10 Credits)	<p>Recommended: CMST& 220 (F,W,S) or 230 (F); ECON& 201 (A)</p>
Pre-Major Requirements (33 Credits)	<p>Required: Physics Sequence: PHYS& 221 (F,W), &222 (S,U), &223 (W,S) Additional Math: MATH& 152 (F,W,S); MATH& 163 (F,W,S) Additional Science: CHEM 171/181 (F,W,S)</p>
Program Specific Courses (27-29 Credits)	<p>Any transfer courses count. A maximum of 5 credits for restricted/vocational course work. Below are some suggested courses: CHEM 172/182 (W,S,U); CS 121 (F,W,S) or 143 (F,W,S); CS& 141 (W,S); ENGR 100 (F), 102 (F,W), 115(W), 202 (S), 205 (F,W,S) or 240 (W,S); ENGR& 104 (W,S), 114 (A), 204 (W,U), 214 (S), 215 (W), 224 (S), or 225 (F); MATH 207 (S) or 208 (W,S); MATH& 264 (F)</p>

F=Fall, W=Winter, S=Spring, U=Summer, A=All– indicates quarter(s) in which class is offered.

Where can I transfer?

The AS-T makes it possible for students to transfer to a number of public and private colleges and universities in the U.S. with junior standing. Washington State institutions and major programs are listed below.

Central Washington University (EET , IT , MET)	University of Washington (AE , BE , BSE , CE , CHE , COMPE , EE , HCD , IE , MSE , ME)
Eastern Washington University (EE , ME , MET)	Washington State University (BE , CE , CHE , EE , ME , MSE)
Gonzaga University (CE , COMPE , EE , ME)	Western Washington University (EE , IT , ManE , PCE)
Saint Martin’s University (CE , ME)	Seattle University (CE , COMPE , EE , ME)
Seattle Pacific University (ASE , COMPE , EE , ME)	Walla Walla University (BE , CE , COMPE , EE , ME)

**Note: Engineering Majors at WA universities are designated as follows: Aeronautical (AE), Appropriate and Sustainable Engineering (ASE) Bioengineering (BE), Bioresource Science (BSE) Chemical Engineering (CHE), Civil (CE), Computer Engineering (COMPE), Electrical Engineering (EE), Electronics Engineering Technology (EET), Human Centered Design (HCD), Industrial (IE), Industrial Technology (IT), Manufacturing Engineering (ManE), Materials Science (MSE), Mechanical (ME), Mechanical Engineering Technology (MET), Plastics and Composites Engineering (PCE)*

What does your chosen four-year school require?

University engineering programs require specific courses for each major. This “Engineering, General” preparation sheet shows the minimum requirements for the Associate in Science Transfer-Track 2 degree. These minimum requirements will not usually meet admissions requirements into the junior year of a specific engineering major. It is recommended that you pursue the **Major Related Programs*** for one of the following engineering pathways as preparation for a four-year engineering degree. Consult the planning guides for those degrees for more information.

- Biological and Chemical Engineering (MRP)
- Computer and Electrical Engineering (MRP)
- Aeronautical, Civil, Industrial, Manufacturing, Materials Science and Mechanical Engineering, Plastics and Composites (MRP)

** A Major Related Program (MRP) prepares students for entrance into select majors at particular four-year schools. These programs have specific **required classes** within the AS-T degree, and will be shown on your transcript as a different type of completion than the general AS-T.*

Students are encouraged to study the schools and departments to which they plan to apply and work with their academic adviser to make a course plan. If you are preparing for an engineering program at the University of Washington (Seattle), please consult the UW College of Engineering handout.

**** This unofficial guide is intended to support you as you prepare for your major. Please consult with an advisor and your chosen four-year school(s), as program and admissions requirements vary and may change without notice.**