Aeronautical, Civil, Industrial, Manufacturing, Materials Science, Mechanical Engineering, Plastics and Composites

Associate in Aeronautical, Civil, Industrial, Manufacturing, Materials Science, Mechanical Engineering, Plastics and Composites
Direct Transfer Agreement/Major Related Program (DTA/MRP)
Planning Guide 2016–2017

Aeronautical, Civil, Industrial, Materials Science and Mechanical Engineering—What is it?

Engineers design, test, analyze and inspect new products and systems. The types of products vary by industry and engineering specialty. For example, Aeronautical Engineers design aircraft, satellites, and spacecraft, while Civil Engineers design roads, bridges, and tunnels; Mechanical Engineers design mechanical parts and systems; Industrial Engineers oversee production to effectively manage people and equipment; and Materials Science Engineers work with metals, ceramics, plastics and semi-conductors to develop new materials.

Areas of Study in Engineering: Calculus, Chemistry, Physics, Thermodynamics, Mechanics of Materials, Statics, Dynamics, Project Design, Computer Aided Design, Electronic Circuits, Manufacturing Processes, Project Management, Product Safety, Quality Control and Professional Ethics.

What is an AS-T MRP?

The AS-T degree requires a minimum of 90 quarter credits in courses numbered 100 or above and a cumulative GPA of 2.0 or higher. Each individual course must have a minimum grade of 1.0. Students granted the degree are normally awarded junior status. The AS-T Major Related Program (MRP) prepares students for entrance into certain majors at those schools. The MRP requires specific courses, and will be shown on your transcript as a different type of degree than the general AS-T.

Where can I go for help?

Instructional Faculty Advisors

Alison Armstrong	206-546-4698	aarmstrong3@shoreline.edu	Rm 2810
Eric Basham	206-546-4625	ebasham@shoreline.edu	Rm 2809
Lauren Sandven	206-546-6795	lsandven@shoreline.edu	Rm 2811
Nirmala Savage	206-533-6610	nsavage@shoreline.edu	Rm 2819
Rosalie Tepper	206-533-6627	rtepper@shoreline.edu	Rm 2204
Tiffany Meier	206-546-6953	tmeier@shoreline.edu	Rm 5231

For course information and entry codes, contact:
engineeringadvising@shoreline.edu; chemistryadising@shoreline.edu; mathadvising@shoreline.edu

General Academic Advising

FOSS (5000) Building, Rm. 5229
206-546-4559
advising@shoreline.edu
www.shoreline.edu/advising

International Student AcademicAdvising

9000 Building, Rm. 9302
206-546-4697
ieadvisors@shoreline.edu
www.shoreline.edu/international/advising/

Where can I transfer?

The AS-T Track 2 MRP Aeronautical, Civil, Industrial, Manufacturing, Materials Science, Mechanical Engineering, Plastics and Composites makes it possible for students to transfer to a number of public and private colleges and universities with junior standing. Below are Washington state institutions that recognize this MRP.

Public Institutions

Central Washington University – Ellensburg (MET)
Eastern Washington University – Cheney (ME, MET)
University of Washington – Seattle (AE, CE, IE, MSE, ME)
University of Washington – Bothell (ME)
Washington State University – Pullman (CE, ME, MSE)
Washington State University—Vancouver (ME)
Washington State University – Tri-Cities (CE, ME)
Washington State University @ Everett CC (ME)
Washington State University @ Olympic College (ME)
Western Washington University – Bellingham (ManE, IT, PCE)

Private Institutions

Gonzaga University (CE, ME)
Saint Martin's University (CE, ME)
Seattle Pacific University (ME)
Seattle University (CE, ME)
Walla Walla University (CE, ME)

*Note: Engineering Majors offered at Washington State Universities are designated as follows: Aeronautical (AE), Civil (CE), Industrial (IE), Manufacturing (ManE), Industrial Technology (IT), Materials Science (MSE), Mechanical (ME), Mechanical Engineering Technology (MET), Plastics and Composites (PCE)

What can I do with a Bachelor's Degree in Engineering?

In addition to technical, scientific and problem solving skills, engineers rely heavily on teamwork and strong communication skills to manage projects effectively. These skills apply to a wide range of careers in areas such as research and development, project design, project management, teaching, sales and consulting.

Potential employers include: Engineering firms, aerospace and manufacturing firms, navigation firms, government agencies, colleges and universities and consulting firms. For more, please visit career information and resources at http://www.shoreline.edu/counseling-services/career-counseling.aspx

What do I need to take?*

Below are the requirements for the AS-T Track 2 and the Major Related Program (MRP) in Aeronautical, Civil, Industrial, Manufacturing, Materials Science, Mechanical Engineering, Plastics and Composites.

I. GENERAL EDUCATION I 18 - 20 Credits

Courses used in General Education (Gen Ed) Core may not be used for distribution.

General Education Courses	QTR	GR	CR
ENGL &101			5
ENGL &102, &230 or CMST &101			**3 - 5**
Multicultural Understanding			**5**
MATH &151			**5**

II. DISTRIBUTION REQUIREMENTS | 10 Credits

See courses listed on next page

Humanities *5 Credits*	QTR	GR	CR
1.			

Social Sciences *5 Credits*	QTR	GR	CR
1.			

III. PRE-MAJOR PROGRAM I 79 – 84.5 Credits

PHYSICS | 16.5 Credits		QTR	GR	CR
PHYS &221	*Fall, Win*			**5.5**
PHYS &222	*Win, Spr, Sum*			**5.5**
PHYS &223	*Win, Spr*			**5.5**
MATHEMATICS | 20 Credits				
MATH &152	*Every quarter*			**5**
MATH &163	*Every quarter*			**5**
MATH 207	*Fall, Spr*			**5**
MATH 208	*Fall, Win*			**5**

CHEMISTRY | 13 Credits		QTR	GR	CR
CHEM 171/181	*Every quarter*			**6.5**
CHEM 172/182	*Win, Spr, Sum*			**6.5**

ENGINEERING | 25 Credits		QTR	GR	CR
ENGR &114	*Every quarter*			**5**
ENGR 115	*Win, Spr, Sum*			**5**
ENGR &214	*Spr, Fall*			**5**
ENGR &225	*Fall, Win*			**5**
ENGR &215	*Win, Spr (tentative)*			**5**

SELECT TWO COURSES BELOW | 6 - 10 Credits

CS 121 (Every quarter), **CS &141** (Every quarter), **ENGR 100** (Fall, Win Spr), **ENGR &102** (Fall), **ENGR &104** (Win), **ENGR &202** (Spr), **ENGR &204** (Spr), **ENGR 205** (Every quarter), **ENGR 206** (Every quarter), **ENGR 240** (Spr), **MATH &264** (Spr)

Program Specific Courses	QTR	GR	CR
1.			
2.			

What does your chosen four-year school require?

Before choosing classes, become familiar with the four-year program where you want to apply: visit the website, email the department, and/or speak with a Shoreline advisor. Below are examples from Washington schools with different admissions and graduation requirements. Check with the school for world language requirements. (Non-native speakers of English are often exempt from this requirement.)

School	Degrees	Requirements
Seattle Pacific University	B.S. in Engineering with Mechanical Engineering Concentration	http://www.spu.edu/depts/ee/
Seattle University	B.S. in Civil Engineering or Civil Engineering with Environmental Specialty; B.S. in Mechanical Engineering	http://www.seattleu.edu/scieng/
University of Washington – Seattle, Bothell	B.S. in Aeronautical, Civil, Industrial, Materials Science and Mechanical Engineering	http://www.engr.washington.edu/
Washington State University	Pullman Campus - B.S. in Civil, Materials Science and Mechanical Eng. Tri-Cities Campus – B.S.in CE and ME; Vancouver Campus – B.S. in ME Olympic College and Everett Community College Campuses – B.S. in ME	http://www.cea.wsu.edu/
Western Washington University	B.S. in Electrical Engineering (EE), Manufacturing Engineering (ME, Plastics and Composites Engineering (PCE).	https://cse.wwu.edu/engd

The following is a list of classes that satisfy Shoreline's 2016-2017 AS-T Track 2 degree requirements. Credits for a specific course may be used only once and may not be applied toward more than one distribution area. Course numbers with an "&" are common course numbers with content that is consistent across Washington state community colleges.

I. GENERAL EDUCATION CORE REQUIREMENTS | 20 CREDITS

COMMUNICATIONS —10 Credits

English &101
English &102, 230
Communication Studies &101

MULTICULTURAL UNDERSTANDING — 5 Credits

Communication Studies 203, 285
Gender and Women's Studies 284
History 245
Multicultural Studies 105

QUANTITATIVE / SYMBOLIC REASONING—5 Credits

Math &151

* Students planning to transfer to the University of Washington must consult Math Advising, mathadvising@shoreline.edu

II. DISTRIBUTION AREA REQUIREMENTS | 15 CREDITS

HUMANITIES—5 Credits
No more than 5 credits in 100 level foreign language.

General Humanities

American Ethnic Studies 106, 215
American Sign Language &121-&123
Art &100, 105, 234
Art History 204, 210, 224-226
Chinese &121-&123
Cinema 201, 202
Communication Studies &101, &102, 203, &210, &220, 285
Drama &101
English &111-&113, 154, 200, 207, &220, &226-&228, 229, &244-&246, 247, 248, 257, 265, 271, 272, 281, 282, 287-289
French &121-&123
Honors 100
Humanities 111-113, 140, 275
Japanese &121-&123, &221-&223
Music 100, &105, 106, 108, 109, &141-&143, 150, 206, 224, &241-&243
Philosophy &101, 102, &115, 210, 240, 248, 267
Spanish &121-&123, &221-&223

Performance Skills /Applied Theory – 5 Credits Maximum

Art 109, 110, 121-123, 131-134, 144-146, 251-256, 260-262, 271-273
Communication Studies 140, &230, 244, 245, 247
Drama 144–146, 155-157, 207–209, 224, 235, 244, 255
English &230, 279
Film 255-258, 266, 285, 286, 290
Music 114, 115, 118–120, 135, 136, 140, 144, 146, 147, 150–156, 161–167, 170, 175, 180, 184, 196, 204, 205, 207, 210-212, 225, 226, 251–253, 264, 268, 270, 280, 284, 296

SOCIAL SCIENCES— 5 Credits

American Ethnic Studies 106, 119, 229
Anthropology &100, &204, &206, &207, 215
Art History 204
Business &101
Child Advocacy Studies 102, 202, 285
Communication Studies &102
East Asia 218
Economics 100, &201, &202
Gender and Women's Studies 205, 215, 284, 285, 286, 288
Geography &100, 123, &200, 277
History &116-&118, &136, &137, &146-&148, 207, &214, &215, 218, &219, 234-238, 245-247, 256, 275
Honors 100
International Studies 101, 123, 200, 201, 205
Multicultural Studies 105, 205, 210, 238, 250
Philosophy &101, 102, &115, 210, 240, 248, 265, 267
Political Science &101, &202, &203, 221
Psychology &100, &200, 208, 209, 210, &220, 225, 236, 245
Sociology &101, 102, 112, &201, 202, 250, 288

III. ADDITIONAL SCIENCE | 5 – 6 CREDITS

Anthropology &205*
Astronomy &101
Biology 124, 126, 144, 150*, &170, 244, 249, 274, 275, 277
Chemistry &110, &121, &131, 171/181, 172/182, 173/183, &241/271, &242/272
Environmental Science &100, &101, 202
Geography 203, 204
Geology &101, &110, &115, &208
Nutrition &101*
Oceanography &101
Philosophy &120*
Psychology 202

** these courses may not meet requirements at some Baccalaureate Colleges or Universities.*

STUDENT INFORMATION

Name: ____

Student I.D. No.: ______________________________

Major/Pathway(s): _____________________________

Specialty (if applicable): ________________________

TRANSFER SCHOOLS OF INTEREST

1.

2.

3.

4.

Academic Goals

- ❒ Complete an A.A. or A.S. degree
- ❒ Prepare for transfer only—No degree
- ❒ High school completion program/ GED

Previous College Experience

- ❒ Transferred from another college
- ❒ Completed transfer credit evaluation
- ❒ Prior Learning Assessment

Qtr:	Year:	Qtr:	Year:	Qtr:	Year:	Qtr:	Year:
COURSE	CR	COURSE	CR	COURSE	CR	COURSE	CR
Total Credits		Total Credits		Total Credits		Total Credits	

Notes:

Qtr:	Year:	Qtr:	Year:	Qtr:	Year:	Qtr:	Year:
COURSE	CR	COURSE	CR	COURSE	CR	COURSE	CR
Total Credits		Total Credits		Total Credits		Total Credits	

Notes:

Qtr:	Year:	Qtr:	Year:	Qtr:	Year:	Qtr:	Year:
COURSE	CR	COURSE	CR	COURSE	CR	COURSE	CR
Total Credits		Total Credits		Total Credits		Total Credits	

Notes: