

# Shoreline Community College

## Suggested Courses for Pre-engineering Majors (AST2) For Transfer to Washington State University, Pullman Campus

Sections in this document refer to sections of the AST2 degree program found at:

<http://www.sbctc.edu/college/e-transferassocinscience.aspx>

*Note: Please consult with an academic advisor to determine which of the following courses are appropriate for AST2 degree completion in your particular area of interest.*

### **Core Courses required for AST2:**

#### **A. Communication Skills**

ENGL& 101                  English Composition I

#### **B. Mathematics**

MATH& 151                  Calculus I

MATH& 152                  Calculus II

#### **C. Humanities and Social Science**

ECON& 202                  Macro Economics

Humanities Elective [HA]

Humanities or Social Science Elective [SS]

#### **D. Pre-major Program**

MATH& 163                  Calculus III

PHYS& 221/231              Engineering Physics I w/ Lab

PHYS& 222/232              Engineering Physics II w/ Lab

PHYS& 223/233              Engineering Physics III w/ Lab

CHEM 171/181                General Chemistry w/ Lab I

#### **E. Remaining Credits**

Pathways described below correspond to the major related pathways (MRPs) defined at:

[http://www.sbctc.edu/college/transfer/as\\_t\\_track2\\_engr\\_pathways\\_As\\_Proposed.doc](http://www.sbctc.edu/college/transfer/as_t_track2_engr_pathways_As_Proposed.doc)

### **Elective Requirements for All Pathways (15 credits recommended for all pathways):**

ENGL& 230                  Technical Writing

MATH& 264                  Calculus 4

MATH 207                    Differential Equations

### **BIO and CHEM E Pathway (select at least 20 credits from this list):**

CHEM 172/182                General Chemistry w/ Lab II

CHEM 173/183                General Chemistry w/ Lab III

CHEM& 241/271              Organic Chemistry w/ Lab I

CHEM& 242/272              Organic Chemistry w/ Lab II

CHEM& 243                    Organic Chemistry III

BIOL& 211                  Majors Cellular

MATH 208                    Linear Algebra (for BE Pathway)

ENGR& 204           Electrical Circuits  
ENGR& 224           Thermodynamics

**Comp E and EE Pathway (select at least 20 credits from this list):**

CHEM 172/182        General Chemistry w/ Lab II

MATH 208            Linear Algebra

ENGR& 214           Statics (for EE pathway)  
ENGR& 204           Electrical Circuits  
ENGR& 224           Thermodynamics

CS& 141             Computer Science I Java\*\*

\*\* For EE pathway, good for background preparation, but will not substitute as CptS 121 at WSU

**Mechanical, Civil, Materials Science, and Other Engineering Pathway (select at least 20 credits from this list):**

MATH 208            Linear Algebra

BIOL& 260           Microbiology (for CE pathway)

CHEM 172/182        General Chemistry w/ Lab II  
CHEM 173/183        General Chemistry w/ Lab III (for MSE pathway)

ENGR& 204           Electrical Circuits  
ENGR& 214           Statics  
ENGR& 215           Dynamics  
ENGR& 224           Thermodynamics  
ENGR& 225           Mechanics of Materials

ENGR 205            Solid Works and Parametric Modeling (for ME pathway)  
ENGR 206            Advanced Solid Works (for ME pathway)

CSC& 141            Computer Science I Java (for ME/MSE pathway)

**This document is accurate as of February 26, 2016. The latest version can be found at [www.cea.wsu.edu/transferestudents](http://www.cea.wsu.edu/transferestudents)**

**For general questions about this document or to report an error, please contact Kasey Schertenleib at [kasey@wsu.edu](mailto:kasey@wsu.edu) or 509-335-6613.**

### **Advantages of the AST2 Degree When Transferring to WSU**

- Courses designated [H]-Humanities and [S]-Social Science by your Community College are accepted as [H] and [S] by WSU.
- [B]-Biological Science General Education Requirement (GER) is waived by WSU if your degree program does not require Biology.

### **WSU Writing Portfolio**

At WSU, completion of the Junior Writing Portfolio is a General Education Requirement for graduation. Transfer students entering with 60 or more credits must initiate the Junior Writing Portfolio by the end of their first semester at WSU. To this end, you should save examples of writing from coursework completed at your Community College. Instructor sign-off is required. For more information, please visit:

[www.writingprogram.wsu.edu/units/writingassessment/midcollege/writingportfolio/](http://www.writingprogram.wsu.edu/units/writingassessment/midcollege/writingportfolio/)

### **Alternative Options for Obtaining WSU Engineering Credits**

- Check with neighboring Colleges to see if alternative engineering electives are available which are transferable to WSU.
- Consider enrolling in a distance education course through Washington Online.  
<http://www.waol.org>
- Consider enrolling in WSU Summer Session courses prior to Fall enrollment.  
<http://www.summer.wsu.edu/>

**For specific questions regarding transfer equivalencies, please contact one of the WSU academic coordinators listed below:**

#### **School of Bioengineering and Chemical Engineering**

Maria Greaney-Curry  
509-335-1041  
[mgreaney@wsu.edu](mailto:mgreaney@wsu.edu)

#### **Department of Civil and Environmental Engineering**

Kelli Gardner-Schrand and John Rarig  
509-335-6933  
509-335-1219  
[k.gardner-schrand@wsu.edu](mailto:k.gardner-schrand@wsu.edu)  
[jrarig@wsu.edu](mailto:jrarig@wsu.edu)

#### **School of Electrical Engineering and Computer Science**

Josh Whiting  
509-335-2446  
[joshwhiting@wsu.edu](mailto:joshwhiting@wsu.edu)

#### **School of Mechanical and Materials Engineering**

Pullman Campus	Bremerton/Everett
Priscilla Hastay	Linda Howell
509-335-8582	509-335-2483
<a href="mailto:hastay@wsu.edu">hastay@wsu.edu</a>	<a href="mailto:linda.howell@wsu.edu">linda.howell@wsu.edu</a>