

# Tacoma 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] – course must meet multicultural requirement

ENGR& 104            Introduction to Engineering and Design

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

MATH& 153            Calculus III

PHYS 121            Engineering Physics I

PHYS 122            Engineering Physics II

PHYS 123            Engineering Physics III

CHEM& 161            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& 235            Technical Writing

MATH& 254            Calculus IV

MATH 238            Differential Equations

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

CHEM& 162            General Chemistry w/ Lab II

CHEM& 163            General Chemistry w/ Lab III

CHEM& 261            Organic Chemistry w/ Lab I

CHEM& 262            Organic Chemistry w/ Lab II

CHEM& 263            Organic Chemistry w/ Lab III

BIOL& 222            Intro to Cellular and Molecular Biology (for BE pathway)

MATH 220                      Linear Algebra (for BE Pathway)

ENGR& 204                    Electrical Circuits

ENGR& 224                    Thermodynamics

**Comp E and EE Pathway:**

CHEM& 162                    General Chemistry w/ Lab II

MATH 220                      Linear Algebra

ENGR& 204                    Electrical Circuits

ENGR& 214                    Statics (for EE pathway)

ENGR& 224                    Thermodynamics

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

MATH 220                      Linear Algebra

BIOL& 260                    Microbiology (for CE pathway)

CHEM& 162                    General Chemistry w/ Lab II

CHEM& 163                    General Chemistry w/ Lab III (for MSE pathway)

ENGR& 114                    Engineering Graphics (for ME pathway)

ENGR& 204                    Electrical Circuits\*

ENGR& 214                    Statics

ENGR& 215                    Dynamics

ENGR& 224                    Thermodynamics\*

ENGR& 225                    Mechanics of Materials

\*(Only one of ENGR& 204 or ENGR& 224 needed for CE pathway)

CMST& 220                    Public Speaking (for CE pathway)\*\*

CMST& 230                    Group Communication (for CE pathway)\*\*

\*\* (Only one of CMST& 220 or CMST& 230 needed for CE pathway, may also fulfill requirement in section C)

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

**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

Priscilla Hastay

509-335-8582

[hastay@wsu.edu](mailto:hastay@wsu.edu)

Bremerton/Everett

Linda Howell

509-335-2483

[linda.howell@wsu.edu](mailto:linda.howell@wsu.edu)