Highline 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   Macroeconomics
   ANTH& 100   Survey of Anthropology
   Humanities Elective [HA]

D. Pre-major Program
   MATH& 153   Calculus III
   PHYS 201    Engineering Physics I – Mechanics
   PHYS 202    Engineering Physics II – Electricity and Magnetism
   PHYS 203    Engineering Physics III – Waves, Thermodynamics, and Modern Topics
   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/docs/education/transfer/2008-as-t_track2_engr_compsci_physics_atmossci.pdf

Elective Requirements for All Pathways (15 credits recommended for all pathways):
   MATH& 254   Calculus IV
   MATH 230    Differential Equations

   ENGL& 235   Technical Writing

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& 211   Majors Cell
ENGR& 204  Electrical Circuits  
ENGR& 224  Thermodynamics  

MATH 220  Linear Algebra (for BE Pathway)  

**Comp E and EE Pathway (select at least 20 credits from this list):**  
CHEM& 162  General Chemistry w/ Lab II  
MATH 220  Linear Algebra  
ENGR& 214  Statics (for EE pathway)  
ENGR& 204  Electrical Circuits  
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)  
DRAFT 124  SolidWorks (for ME pathway)  
CHEM& 162  General Chemistry w/ Lab II  
CHEM& 163  General Chemistry w/ Lab III (for MSE pathway)  
ENGR& 214  Statics  
ENGR& 215  Dynamics  
ENGR& 225  Mechanics of Materials  
ENGR& 204  Electrical Circuits  
ENGR& 224  Thermodynamics  
CMST& 220  Public Speaking (for CE pathway)*  
CMST& 230  Small Group Communication (for CE pathway)*  
*(Only one of CMST& 220 or CMST& 230 needed for CE pathway, may also fulfill requirement in section C)
Advantages of the AST2 Degree When Transferring to WSU

- Courses designated [H]-Humanities and [S]-Social Science by your Community College are accepted as [HUM] and [SSCI] by WSU.
- [BIOL]-Biological Science UCORE Requirement 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](http://www.waol.org)
- Consider enrolling in WSU Summer Session courses prior to Fall enrollment. [http://www.summer.wsu.edu/](http://www.summer.wsu.edu/)

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

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