SSCC SOUTH SEATTLE COMMUNITY COLLEGE
Member of the Seattle Community College District

Career Planning Guide

ASSOCIATE OF SCIENCE TRANSFER DEGREE # 2
ENGINEERING, COMPUTER SCIENCE, PHYSICS, AND ATMOSPHERIC SCIENCES

Length of Program: 90 credits **Goal**: Associate of Science Degree (AS-T) Track 2 Exit Code B

South Seattle Community College
6000 16th Ave SW

Seattle, Washington 98106-1499
http://www.southseattle.edu/
Academic Offices (206) 768-6600

Quarterly Costs – check current schedule:
http://www.southseattle.edu/services/tuition.htm

Class schedule and District catalog:
http://classes.southseattle.edu/

General Academic Advising:
(206)-764-5387
advisorsouth@sccd.ctc.edu

Faculty Contact:
Mike Steffancin (206)-768-6486
msteffancin@sccd.ctc.edu
RSB 189

PROGRAM DESCRIPTION

This Associate of Science (AS) degree program prepares students for transfer to Engineering, Computer Science, Physics or Atmospheric Science programs at four-year colleges and universities and will give students basic skills needed by all engineers and scientists. Students study basic mathematical and scientific principles with an emphasis on problem solving and critical thinking. Additionally, the program provides students experience with extensive laboratory work. The curriculum also develops other job related skills such as communications and human relations. Credits earned with the AS degree at South Seattle Community College can be applied toward the first two years of a four-year bachelor's degree in engineering computer science, physics or atmospheric science.

PROGRAM OUTCOMES

Students who successfully complete this program will show:

- An ability to apply knowledge of mathematics and scientific principles to science and engineering problems.
- An ability to design and conduct experiments, as well as to analyze and interpret data.
- An ability to think critically in evaluating information, solving problems and making decisions.
- An ability to function on diverse, multi-disciplinary teams.
- An ability to access and evaluate information from a variety of sources including the Internet.
- An understanding of professional and ethical responsibility.
- An ability to communicate effectively with written, oral, and visual means.
- The broad education necessary to understand the impact of scientific and engineering solutions in a global and societal context.
- A recognition of the need for and an ability to engage in life-long learning.
- An ability to use modern scientific techniques, skills, and technology including computing and programming tools necessary for scientific/engineering practice.

CAREER OPPORTUNITIES

The employment outlook for Engineers, Computer Scientists, Physicists and Atmospheric Scientists is very good. Graduates can be employed in private industry as well as various governmental departments, consulting services, and technical sales. Nationwide, the average starting salary for graduates with a Bachelor's degree in Engineering in 2010 vary from $52,605 to $65,142 depending on the field studied. Source: National Association of Colleges and Employers.

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CURRICULUM

90 credits are required for the AS degree. All classes are 5 credits unless otherwise listed.

BASIC REQUIREMENTS (20 credits):

- ENGL& 101 – Composition
- MATH& 151 – Calculus I
- MATH& 152 – Calculus II
- MATH& 153 – Calculus III

DISTRIBUTION REQUIREMENTS (15 credits):

Visual, Literary and Performing Arts (5 - 10 credits)

- Language and Speech
- Literature/History of Ideas
- Music, Art and Drama

Individuals, Cultures and Societies (5 - 10 credits)

- Individuals and Societies
- United States Culture
- Global Studies

MAJOR AREA OF STUDY (21 credits):

- CHEM& 161 (6 credits)
- PHYS& 221, 222, & 223

ELECTIVES (34 credits):

Courses may not be used to satisfy other requirements. **Selection should be made based on advisor recommendation, given the branch of engineering that the student plans to pursue.**

Recommended: CHEM& 162 (6 cr), CSC 110, 142, 143, ENGL& 230, ENGR& 204, 214, 215, 220, 260, MATH& 220, 224, 238
Other science classes offered:

- ASTR& 100, 201
- BIOL& 211, 212, 213
- CHEM& 163 (6 cr), 231 (4 cr), 238 (3 cr)
- ENGR 110 (1 cr), 111 (4 cr), 112 (4 cr), 116 (4 cr), 141, 142, 170 (4 cr), 171 (1 cr), 298, 299
- SCI 110

Notes:
Many courses have prerequisite courses or placement tests that you must pass in order to get into these courses. Contact an advisor or counselor for more information.

SAMPLE COURSE PLAN

By starting in the Fall and taking a full-time load, students may complete the curriculum in six quarters. Many students find they have to attend summer school to graduate on time. Certain higher-level classes are only offered once a year, **so be sure to consult with advisors here at SSCC and at the 4-year institution you will attend to plan your schedule.**

FRESHMAN YEAR:

First quarter

- CHEM& 161 Chemistry I (6 cr)
- CSC 110 Introduction to Programming
- ENGL& 101 Composition
- ENGR 110 Engineering Orientation (1 cr)

Second quarter

- CHEM& 162 Chemistry II (6 cr)
- MATH& 151 Calculus I
- Distribution Requirement (5 cr)

Third quarter

- MATH& 152 Calculus II
- PHYS& 221 Engineering Physics I
- Distribution Requirement (5 cr)

SOPHOMORE YEAR:

First quarter

- MATH& 153 Calculus III
- MATH& 238 Differential Equations
- PHYS& 222 Engineering Physics II

Second quarter

- ENGR& 214 Engineering Statics
- PHYS& 223 Engineering Physics III
- ENGR& 220 Linear Algebra

Third quarter

- ENGL& 230 Technical Writing (3 cr)
- Distribution Requirement (5 cr)
- ENGR& 215 Engineering Dynamics
- ENGR& 220 Strength of Materials

Updated 5/3/10

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Name	**SID#**				
No course fulfills more than one requirement **Basic Requirements: 20 credits**	**Course Credit**	**Credit Earned**	**Grade**	**College**	**Quarter**
ENGL& 101	5				
MATH& 151	5				
MATH& 152	5				
MATH& 153	5				
Areas of Knowledge Distribution Requirements: 15 credits					
Visual, Literary, and Performing Arts (Humanities and Arts): 5 – 10 credits					
Individuals, Cultures, and Society (Social Sciences): 5 – 10 credits					
Major Area of Study: 21 credits					
CHEM& 161	6				
PHYS& 221	5				
PHYS& 222	5				
PHYS& 223	5				
Electives: 34 credits Courses may not be used to satisfy other requirements. **Selection should be made based on advisor recommendation, given the four-year institution that the student plans to attend.**					

Note: Students must have a minimum 2.0 GPA for graduation and must take a minimum of 30 credits at SSCC. Final quarter must be at SSCC.

Total Credits Required: 90 **Evaluator**_____ **Date**_____

Updated 5/3/10