

## Career Planning Guide Effective September 2003 for

### SCIENCE PRE-MAJOR

**Length of Program:** 90 credits

**Goal:** Associate of Science (AS) Degree

**South Seattle Community College**

6000 16<sup>th</sup> 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://www.southseattle.edu/programs/classCat/>

**General Academic Advising:**

(206)-764-5387

[advisorsouth@sccd.ctc.edu](mailto:advisorsouth@sccd.ctc.edu)

**Science Faculty Contact:**

Mike Steffancin (206)-768-6486

[msteffancin@sccd.ctc.edu](mailto:msteffancin@sccd.ctc.edu)

RSB 189

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### PROGRAM DESCRIPTION

The Science Pre-Major Associate of Science (AS) degree program prepares students for transfer to science programs at four-year colleges and universities and will give students basic skills needed by scientists studying fields such as Biology, Chemistry, Environmental Science, Geology, and Earth Science. Students study basic mathematical and scientific principles with an emphasis on problem solving and critical thinking. Additionally, the program provides students with extensive laboratory experience. The curriculum also develops other job related skills such as communications, human relations and technical report writing. 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 sciences such as Biology, Chemistry, Environmental Science, Geology, and Earth Science.

### PROGRAM OUTCOMES

Students who successfully complete this program will show:

- An ability to apply knowledge of mathematics and scientific principles to scientific 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 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 laboratory tools necessary for scientific practice.

### CAREER OPPORTUNITIES

The employment outlook for scientists is very good. Graduates can be employed in private industry as well as various governmental departments, consulting services, education, and technical sales. Starting salaries for graduates with a Bachelor's degree in the sciences varies from \$30,000 to \$53,000 depending on the field studied.

# Associate of Science Pre-Major

## CURRICULUM

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

### BASIC REQUIREMENTS (15 credits):

- ENG 101 – Composition
- MAT 124\* – Calculus I
- MAT 125\* – Calculus II

### 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 (48 credits):

- CHE 140<sup>†</sup>, 150, 160 (6 credits each)
- BIO 201, 202, 203 or PHY 101, 102, 103 or PHY 201, 202, & 203
- MAT 109 or MAT 126
- An additional 10 credits in physics, geology, organic chemistry, biology, or mathematics (not for general education.)

### ELECTIVES (12 credits):

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

Other science courses offered include:

- AST 100, 201
- BIO 120, 201, 202, 203, 280
- CHE 139
- CSC 110, 142
- EGR 111, 141, 231
- ENV 150, 221
- GEO 100, 101, 102, 208
- MAT 109, 122, 123, 215 (2 cr), 216 (2 cr), 220, 238, 240, 298 (2 credit maximum given for MAT 298)

### Footnotes:

\*MAT 215 must be taken with MAT 124; MAT 216 must be taken with MAT 125

<sup>†</sup>CHE 139 is a prerequisite for CHE 140

<sup>‡</sup>CSC 110 or EGR 141 is a prerequisite for CSC 142

## SAMPLE COURSE PLAN

By starting in the Fall and taking a full-time load, students may complete the curriculum in six quarters. 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

- MAT 124 Calculus I
- MAT 215 Word Problems for Calculus
- ENG 101 Composition
- BIO 201 College Biology

#### Second quarter

- MAT 125 Calculus II
- MAT 216 Word Problems for Calculus
- Distribution Requirement (5 credits)
- BIO 202 College Biology II

#### Third quarter

- BIO 203 College Biology III
- MAT 126 Calculus III
- Distribution Requirement (5 credits)

### SOPHOMORE YEAR:

#### First quarter

- CHE 140 General Chemistry
- BIO 280 Microbiology
- Distribution Requirement (5 credits)

#### Second quarter

- CHE 150 General Chemistry II
- PHY 201 Engineering Physics
- CSC 110 Introduction to Computer Programming

#### Third quarter

- CHE 160 General Chemistry III
- GEO 101 Physical Geology
- EGR 231 Technical Writing



**ASSOCIATE OF SCIENCE DEGREE IN SCIENCE**

Name	SID#				
No course fulfills more than one requirement					
Basic Requirements: 20 credits	Course Credit	Credit Earned	Grade	College	Quarter
ENG 101	5				
MAT 124	5				
MAT 125	5				
<b>Areas of Knowledge Distribution Requirements: 15 credits</b>					
<b>Visual, Literary, and Performing Arts (Humanities and Arts): 5 – 10 credits</b>					
<b>Individuals, Cultures, and Society (Social Sciences): 5 – 10 credits</b>					
<b>Major Area of Study: 48 credits</b>					
CHE 140	6				
CHE 150	6				
CHE 160	6				
BIO 201 or PHY 101 or PHY 201	5				
BIO 202 or PHY 102 or PHY 202	5				
BIO 203 or PHY 103 or PHY 203	5				
MAT 109 or MAT 126	5				
	5				
	5				
<b>Electives: 12 credits</b>					
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 SSSC. Final quarter must be at SSSC.

**Total Credits Required: 90**    Evaluator \_\_\_\_\_ Date \_\_\_\_\_