



**COMMUNITY  
COLLEGES AND  
WORKFORCE  
DEVELOPMENT**  
WORKSOURCE OREGON

## COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

This form should be completed electronically and the boxes will expand to accommodate text.

<b>College:</b> Clackamas Community College	<b>Date:</b> 01/19/17
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CAREER LEARNING AREA	
<input type="checkbox"/> Ag, Food & Natural Resource Systems	<input type="checkbox"/> Health Services
<input type="checkbox"/> Arts, Information & Communications	<input type="checkbox"/> Human Resources
<input type="checkbox"/> Business & Management	<input checked="" type="checkbox"/> Industrial & Engineering Systems

PROGRAM INFORMATION					
<u>APPROVED</u> Program Title	<u>APPROVED</u> CIP Code <small>(Include 7<sup>th</sup> &amp; 8<sup>th</sup> digits used for OCCURS reporting.)</small>			<u>APPROVED</u> Recognition Award	<u>Current</u> Credits
	<u>6-digit CIP</u>	<u>7<sup>th</sup> digit</u>	<u>8<sup>th</sup> digit</u>		
AS Area of Emphasis Title: Engineering				Associate of Applied Science Area of Emphasis	109
Partnering Institution Name George Fox University					

TYPE OF PROGRAM AMENDMENT		
<small>(Check ALL That Apply)</small>		
<input type="checkbox"/> New Agreement	<input checked="" type="checkbox"/> Curriculum Revision	<input checked="" type="checkbox"/> Revision in Program Credits
		<i>Proposed Total Credits:</i> <b>105</b>
<input type="checkbox"/> <b>SUSPENSION</b> of Program	<i>Reason for Suspension:</i>	
<b>Suspension Effective Date:</b>		

## CURRICULUM AMENDMENT

[List in a Defined Sequence of Courses Format, e.g., Quarter-to-quarter mapping.  
For a New Program, complete the Proposed Curriculum section only.]

### CURRENT CURRICULUM 2016-17

[List entire curriculum as last approved]

### PROPOSED CURRICULUM 2017-18

[List only course(s) to be amended]

Course Number	Course Title	Clock Hours	Credits	Course Number	Course Title	Clock Hours	Credits
<b>Program Requirements – First Year</b>							
<b>Fall Term</b>							
CH-221	General Chemistry	77	5				
CS-161	Computer Science-I	44	4		Removed		
ENGR-111	Introduction to Engineering	33	3				
MTH-251	Calculus I	55	5				
<b>Winter Term</b>							
CH-222	General Chemistry	77	5				
CS-162	Introduction to Computer Science-II	44	4		Engineering Elective	44-66	4
ENGR-112	Engineering Programming	33	3				
MTH-252	Calculus II	55	5				
<b>Spring Term</b>							
ENGR-115	Engineering Graphics	33	3				
MTH-243	Statistics I	44	4				
MTH-253	Calculus III	55	5				
WR-121	English Composition	44	4				
<b>Summer Term</b>							
EC-201 or EC-202	Principles of Economics: MICRO Principles of Economics: MACRO	44	4				
WR-122	English Composition	44	4				
<b>Program Requirements – 2<sup>nd</sup> Year</b>							
<b>Fall Term</b>							
ENGR-214	Statics	44	4		Engineering Elective	44-66	4
ENGR-221	Electrical Circuit Analysis	66	4				
MTH-254	Vector Calculus	55	5				
PH-211	General Physics with Calculus	70	5				
<b>Winter Term</b>							
COMM-111	Public Speaking	44	4				
ENGR-222	Electrical Circuit Analysis II	66	4				
MTH-256	Differential Equations	44	4				
PH-212	General Physics with Calculus	70	5				
<b>Spring Term</b>							
HPE-295	Health & Fitness for Life	60	3				
MTH-261	Linear Algebra	44	4				
PH-213	General Physics with Calculus	70	5				
--	Social Science elective		4				

### Electives

The Engineering degree general education requirements differ from the general education requirements for other students (fewer credits are required.) An engineering major must complete the following before graduation.

- 6 credits Social Science (note that the EC-201 or 202 counts toward this requirement.) Also, one of the following is required for engineering majors: PS-200, PSY-110, SOC-204.
- 8-9 credits Humanities/Arts & Letters. Each course must be in a different area of the Humanities/Arts & Letters.
- 3 credits Global and Cultural Understanding.

Add this text:

**\*\*Complete one set of electives:**

**Electrical & Computer Engineering majors:**

ENGR-171 Digital Logic 4

ENGR-271 Digital Systems 4

**Mechanical & Civil Engineering majors:**

ENGR-211 Statics 4

ENGR-212 Dynamics 4

<ul style="list-style-type: none"> <li>6 credits in Communications (note that WR-121, WR-122 and COMM-111 are already listed above and together meet the requirement.)</li> </ul> <p>A student may transfer a maximum of 64 credits to George Fox University.</p>			
<b>TOTAL CURRENT CREDITS:</b>		109	<b>TOTAL PROPOSED CREDITS:</b>
<b>College Contact</b>	Mike Foster	<b>Telephone No.</b>	503-554-2786
<b>E-Mail Address</b>	mfoster@georgefox.edu	<b>Fax No.</b>	
<b>Chief Academic Officer or CTE Dean Signature</b>	<i>[Handwritten Signature]</i>	<b>Date</b>	1/19/12

