



## 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>	10/4/17
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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

<i><b>APPROVED</b></i> Program Title	<i><b>APPROVED</b></i> CIP Code <small>(Include 7<sup>th</sup> &amp; 8<sup>th</sup> digits used for OCCURS reporting.)</small>			<i><b>APPROVED</b></i> Recognition Award	<i><b>Current</b></i> & Credits
	<i>6-digit CIP</i>	<i>7<sup>th</sup> digit</i>	<i>8<sup>th</sup> digit</i>		
AS Area of Emphasis Title: Engineering				Associate of Applied Science Area of Emphasis	<b>105</b>
Partnering Institution Name George Fox University					

### TYPE OF PROGRAM AMENDMENT

(Check ALL That Apply)

<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]

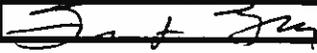
Course Number	Course Title	Clock Hours	Credits	Course Number	Course Title	Clock Hours	Credits
<b>Program Requirements – First Year</b>							
<b>Fall Term</b>							
CH-221	General Chemistry	77	5				
ENGR-111	Introduction to Engineering	33	3				
MTH-251	Calculus I	55	5				
<b>Winter Term</b>							
CH-222	General Chemistry	77	5				
	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>							
	Engineering Elective	44-66	4				
ENGR-221	Electrical Circuit Analysis	66	4		Engineering Elective	44-66	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		Engineering Elective	44-66	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		History Elective	44	4
<b>Electives</b>							
<p>**Complete one set of electives:</p> <p>Electrical &amp; Computer Engineering majors:</p> <p>ENGR-171 Digital Logic 4</p> <p>ENGR-271 Digital Systems 4</p> <p>Mechanical &amp; Civil Engineering majors:</p> <p>ENGR-211 Statics 4</p> <p>ENGR-212 Dynamics 4</p> <p>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.</p>				<p><i>Electrical &amp; Computer Engineering majors:</i> ENGR-221 (Circuits I, 4 credits, Fall), ENGR-222 (Circuits II, 4 credits, Winter), ENGR-171 (Digital Logic, 4 credits, Winter), and ENGR-271 (Digital Systems, 4 credits, Spring)</p> <p><i>Mechanical &amp; Civil Engineering majors:</i> ENGR-211 (Statics, 4 credits, Fall), ENGR-212 (Dynamics, 4 credits, Winter), ENGR-231 (Properties of Materials, 4 credits, Winter), Intercultural Experience Elective (Choose one of the following: FR/GER/SPN 101, 102, 103, 201, 202, 203; ANT 103; R 210; COMM 140; ENG 107, 108, 109)</p>			

- 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.
- 6 credits in Communications (note that WR-121, WR-122 and COMM-111 are already listed above and together meet the requirement.)

A student may transfer a maximum of 64 credits to George Fox University.

2) Complete one history elective for the A.S. degree:

Choose one of the following: HST 101, 102, 103, 201, 202, 203; PS 205

<b>TOTAL CURRENT CREDITS:</b>		109	<b>TOTAL PROPOSED CREDITS:</b>		105
<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>				<b>Date</b>	10/4/17

