



COMMUNITY COLLEGE ASSOCIATE OF SCIENCE AREA OF EMPHASIS AMENDMENT FORM

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

College: Clackamas Community College	Date:
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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>APPROVED</i> Program Title	<i>APPROVED</i> CIP Code (Include 7 th & 8 th digits used for OCCURS reporting.)			<i>APPROVED</i> Recognition Award	<i>Current</i> & Credits
	<i>6-digit CIP</i>	<i>7th digit</i>	<i>8th digit</i>		
AS Area of Emphasis Title: Engineering – Biological Engineering				Associate of Applied Science Area of Emphasis	102
Partnering Institution Name Oregon State 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> 107
<input type="checkbox"/> SUSPENSION of Program	<i>Reason for Suspension:</i>	
Suspension Effective Date:		

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
Program Requirements – 1st Year							
Fall Term							
COMM-111	Public Speaking	44	4				
ENGR-111	Introduction to Engineering	33	3				
MTH-251	Calculus I	55	5				
WR-121	English Composition	44	4				
Winter Term							
BI-204	Elementary Microbiology	66	4				
CH-221	General Chemistry	77	5				
ENGR-112	Engineering Programming	33	3				
MTH-252	Calculus II	55	5				
Spring Term							
CH-222	General Chemistry	77	5				
MTH-254	Vector Calculus	55	5				
WR-227	Technical Report Writing	44	4				
Summer Term							
CH-223	General Chemistry	77	5				
MTH-256	Differential Equations	44	4				
--	Social Process elective		4				
Program Requirements – 2nd Year							
Fall Term							
CH-241	Organic Chemistry I	77	5				
ENGR-211	Statistics	44	4				
PH-211	General Physics with Calculus	70	5				
Winter Term							
CH-242	Organic Chemistry II	77	5				
MTH-253	Calculus III	55	5				
PH-212	General Physics with Calculus	70	5				
Spring Term							
ENGR-221	Electrical Circuit Analysis	66	4				
PH-213	General Physics with Calculus	70	5				
--	Western Culture elective		4				
				CH-243	Organic Chemistry III	77	5
Social Processes Elective							
ANT-103; EC-201, 202, 230; HST-101, 102, 103; PS-201, 202, 204, 205, 225; PSY-110, 200, 205, 219, 231; SOC-204, 205, 206							
Western Culture Elective							
ART-204, 205, 206; ENG-107, 108, 109, 201, 202, 203, 204, 205, 250, 251, 253, 254, 255, 275; GEO-122, 208, 230; HST-101, 102, 103, 201, 202, 203; PHL-102, 215; PS-206; R-204							
<p>Optional: While not required for the A.S. degree, students may complete additional coursework at CCC that will meet requirements for the Bachelor of Science degree at Oregon State University. The Bachelor of Science degree requires the completion of one course from each category below.</p>							
Cultural Diversity Elective							
ANT-230, 231, 232; ENG-210, 213, 252; GEO-110, 121, 230; R-101, 102, 103, 210							
Literature and the Arts Elective							
ART-101, 102, 103, 204, 205, 206, 211, 212, 213; DMC-194; ENG-104, 105, 106, 107, 108, 109, 194, 195, 201, 202, 203, 204,							

205, 213, 250, 251, 252, 253, 254, 255, 260, 275; MUS-105, 205, 206			
Difference, Power, and Discrimination Elective			
HST-201, 202, 203; SOC-225			
Physical Education Elective			
HPE-295			
TOTAL CURRENT CREDITS:		102	TOTAL PROPOSED CREDITS:
			107
College Contact	Kristin Rorrer	Telephone No.	541-737-7255
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Chief Academic Officer or CTE Dean Signature		Date	11/19/17

