



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: 05/22/17
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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>APPROVED</i> Program Title	<i>APPROVED</i> CIP Code <small>(Include 7th & 8th digits used for OCCURS reporting.)</small>			<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				Associate of Applied Science Area of Emphasis	96-101
Partnering Institution Name Portland State 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> 96-106
<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 – First Year							
Fall Term							
CH-221	General Chemistry	77	5				
ENGR-111	Introduction to Engineering	33	3				
MTH-251	Calculus I	55	5				
WR-121	English Composition	44	4				
Winter Term							
ENGR-112	Engineering Programming	33	3				
MTH-252	Calculus II	55	5				
WR-122 or WR-227*	English Composition Technical Report Writing	44	4				
–	Track Requirement		3-5				
Spring Term							
MTH-261	Linear Algebra	44	4				
–	Track Requirement		3-5				
–	Track Requirement		3-5				
–	Arts & Letters electives		4				
Program Requirements – Second Year							
Fall Term							
PH-211	General Physics with Calculus	70	5				
--	Track Requirement		3-5				
--	Track Requirement		3-5				
--	Track Requirement		3-5				
Winter Term							
COMM-111	Public Speaking	44	4				
MTH-256	Differential Equations	44	4				
PH-212	General Physics with Calculus	70	5				
–	Track Requirement		3-5				
Spring Term							
PH-213	General Physics with Calculus	70	5				
--	Track Requirement		3-5				
--	Social Science elective		4				
--	Arts & Letters or Social Science elective		4				
				–	Track Requirement (if necessary)		3-5
*Note: Mechanical Engineers should take WR-122. All other tracks should take WR-227				*Note: Civil and Environmental Engineers must take WR-227. Computer, Electrical, and Mechanical Engineers may choose to take WR-122 or WR-227.			
Arts & Letters or Social Science Electives							
Arts & Letters							
ART-101, 102, 103, 204, 205, 206; ASL-101, 102, 103, 201, 202, 203, 211; COMM-100, 105, 112, 126, 129, 140, 150, 167, 212, 218, 219, 227, 267; ENG-100, 104, 105, 106, 107, 108, 109, 116, 121, 130, 194, 195, 201, 202, 204, 205, 213, 214, 217, 218, 225, 226, 230, 240, 241, 242, 250, 251, 252, 253, 254, 255, 261, 266, 270, 295, 296; FR-101, 102, 103, 201, 202, 203, 211, 212, 213; GER-101, 102, 103, 211, 212, 213; HUM-160, 170, 180, 181, 182, 233, 235, 240, 241, 242; MUS-105, 140, 141, 205, 206, 230; PHL-101, 102, 103, 205, 210, 213, 215; SPN-101, 102, 103, 201, 202, 203, 211, 212, 213; WR-123, 140, 146, 200, 220, 222, 239, 240, 241, 242, 243, 244, 245, 246, 249, 262, 263, 270, 279							

Social Science							
ANT-101, 102, 103, 231, 232; EC-200, 201, 202; GEO-100, 110, 121, 122, 130, 230; HST-101, 102, 103, 130, 131, 132, 136, 137, 138, 201, 202, 203, 210, 220, 239; PS-200, 201, 203, 204, 205, 206, 225, 297; PSY-101, 110, 200, 205, 214, 215, 219, 221, 231, 240; SSC-160, 170, 180, 181, 182, 233, 235, 240, 241, 242; SOC-204, 205, 206, 210, 225; WS-101							
Track Requirements							
Civil Engineering							
CDT-103	Computer-Aided Drafting I	88	3				
CH-222	General Chemistry	77	5				
ENGR-211	Statics	44	4				
ENGR-212	Dynamics	44	4				
ENGR-213	Strength of Materials	44	4				
GIS-201	Introduction to Geographic Information System	66	3				
MTH-254	Vector Calculus	55	5				
Recommended: One additional Arts & Letters or Social Science elective, Plane Surveying (CE211) at PSU. 96 credits at CCC.							
Computer Engineering							
CS-161	Computer Science I	44	4				
CS-162	Computer Science II	44	4				
CS-260	Data Structures	44	4	ENGR-223	Electrical Circuit Analysis III	66	4
ENGR-171	Digital Logic	66	4				
ENGR-221	Electrical Circuit Analysis	66	4				
ENGR-222	Electrical Circuit Analysis	66	4				
ENGR-271	Digital Systems	66	4				
				MTH-253	Calculus III	55	5
96 total credits at CCC.				101 total credits at CCC.			
Electrical Engineering							
CS-161	Computer Science I	44	4				
CS-162	Computer Science II	44	4				
ENGR-171	Digital Logic	66	4				
ENGR-221	Electrical Circuit Analysis	66	4				
ENGR-222	Electrical Circuit Analysis	66	4				
ENGR-223	Electrical Circuit Analysis	66	4				
ENGR-271	Digital Systems	66	4				
MTH-254	Vector Calculus	55	5				
				MTH-253	Calculus III	55	5
101 total credits at CCC.				106 total credits at CCC.			
Environmental Engineering							
BI-204	Elementary Microbiology	66-77	4				
CDT-103	Computer-Aided Drafting	88	3				
CH-222	General Chemistry	77	5				
ENGR-211	Statics	44	4				
ENGR-212	Dynamics	44	4				
ENGR-213	Strength of Materials	44	4				
GIS-201	Introduction to Geographic Information System	66	3				
MTH-254	Vector Calculus	55	5				
100 total credits at CCC.							
Mechanical Engineering							
CH-222	General Chemistry	77	5				
ENGR-115	Engineering Graphics	33	3				
ENGR-211	Statics	44	4				
ENGR-212	Dynamics	44	4				
ENGR-213	Strength of Materials	44	4				
ENGR-221	Electrical Circuit Analysis	66	4				
ENGR-231	Properties of Materials	44	4				
MTH-254	Vector Calculus	55	5				

Recommended: One additional Arts & Letters/Social Science elective. 101 total credits at CCC.			
TOTAL CURRENT CREDITS:	96-101	TOTAL PROPOSED CREDITS:	96-106
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Chief Academic Officer or CTE Dean Signature	<i>Eric Lee</i>	Date	5/22/17