

**ECOLOGICAL ENGINEERING TRANSFER, AS  
OSU ADVISING GUIDE**

Prerequisites and Course Availability per Term  
(for complete information, see 2016-2017 UCC Catalog)

REVISED 11/20/16

	UCC Course No. and Course Name	Term Offered				Credits	Prerequisites/Notes		OSU	
		F	W	S	S				Course No.	Credits
Term 1	CH 221 <sup>E</sup>	General Chemistry I /Lec/Lab/Rec	x				5	MTH 111	CH 231 Lec & CH 261 Lab	4
	DRF 112	Computer Aided Drafting (CAD) I	x				3	MTH 65		
	ENGR 111	Engineering Orientation I	x				3	MTH 65	BEE 101	3
	MTH 251 <sup>E</sup>	Calculus I	x	x			5	MTH 112	MTH 251	4
	WR 121 <sup>E</sup>	English Composition: Intro to Argument	x	x	x	x	4	WR 115 or Placement Test	WR 121	3
Term 2	CH 222	General Chemistry II		x			5	CH 221	CH 232 Lec & CH 262 Lab	4
	GIS 234	Intro to Geographic Information Systems (GIS)		x			4	DRF 112	CCE 202	3
	ENGR 112 <sup>E</sup>	Engineering Orientation II		x			3	ENGR 111	BEE 102	3
	MTH 252 <sup>E</sup>	Calculus II		x	x		4	MTH 251	MTH 252	4
	HPE 295	Wellness & Health	x	x	x	x	3		HHS 231 & HHS 241	3
Term 3	CH 223	General Chemistry III		x			5	CH 222	CH 233 Lec & CH 263 Lab	4
	SP 111 <sup>E</sup>	Public Speaking	x	x	x		4	WR 095	COMM 111	3
	MTH 253 <sup>E</sup>	Calculus III			x		4	DRF 112 CAD I	UCC MTH 253 & MTH 261 = OSU MTH 306	4
	MTH 261 <sup>E</sup>	Linear Algebra			x		2	MTH 111 Algebra	See note above for MTH 306	0
	SOILS 205/206	Soil Science With Lab			x		4		SOILS 205/206	4
Summer										
Term 4	BI 211	Principles of Biology	x				5	CH 221	BI 211 Principles of Biology	4
	ENGR 211 <sup>E</sup>	Statics	x				4	MTH 112	ENGR 211	3
	MTH 254 <sup>E</sup>	Vector Calculus I	x				4	MTH 252	MTH 254	4
	PH 211 <sup>E</sup>	Physics I w/Calculus	x				5	MTH 251 Co-requisite	PH 211 & PH 221 Rec	4
	Perspectives <sup>2</sup>	General Ed Req - See Advisor	x	x	x	x	3	Perspectives Elective	Perspectives Elective	3
Term 5	BI 212	Principles of Biology		x			5	BI 211	BI 212 Principles of Biology	4
	MTH 256 <sup>E</sup>	Differential Equations		x			4	MTH 252	MTH 256	4
	PH 212 <sup>E</sup>	Physics II w/Calculus		x			5	PH 211	PH 212 & PH 222 Rec	4
	WR 227	Technical Report Writing	x	x	x	x	4	WR 222	WR 327	3
	Perspectives <sup>2</sup>	General Ed Req - See Advisor	x	x	x	x	3	Perspectives Elective	Perspectives Elective	3
Term 6	ENGR 213 <sup>E</sup>	Strength of Materials			x		4	ENGR 211	ENGR 213	4
	MTH 265	Statistics for Engineers & Scientists			x		4	MTH 252	ST 314	4
	PH 213 <sup>E</sup>	Physics III w/Calculus			x		5	PH 212	PH 213 & PH 223 Rec	4
	BI 213	Principles of Biology				x	5	BI 213	BI 213 Principles of Biology	4
<b>TOTAL DEGREE CREDITS<sup>3</sup></b>							118			98

\*A grade of "C" or better is required in all courses.

**Program Advisor:**

**NOTES:**

This is a rigorous degree program and may take a minimum of 5 years to complete. Transfer students typically take 3 years of course work at UCC or OSU. Meeting with Advisor early and development of term x term planner is important

1. <sup>E</sup>Required by OSU College of Engineering for entry into the Pro Program
2. Five lower division Perspective Electives required for OSU General Ed <http://admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-umpqua-community-college>  
Link to OSU/UCC General Ed Transfer for Bac Core Courses is
3. A maximum of 108 credit hours count towards the UCC AS degree. Additional courses can be taken at UCC. A maximum of 124 credits (OSU course credits) will transfer.

**Table 3 B. S. in Ecological Engineering - 4 Year Example Program**

Freshman Year			Sophomore Year		
Fall	Winter	Spring	Fall	Winter	Spring
<b>Differential Calculus</b> MTH 251* 4	<b>Integral Calculus</b> MTH 252* 4	<b>Vector Calculus</b> MTH 254* 4	<b>Applied Diff. Eqns.</b> MTH 256* 4	EcoE Fundamentals I BEE 221 3	<b>Matrix and Power Series</b> MTH 306* 4
<b>English Composition</b> WR 121* 3	<b>Speech Communications</b> COMM 111 or 114* 3	<b>General Physics/Calc</b> PH 211* 4	<b>General Physics/Calc</b> PH 212* 4	<b>General Physics/Calc</b> PH 213* 4	<b>Intro to Atmospheric Sciences</b> ATS 210 3
General Chemistry CH 231(4 cr) + CH 261 (1 cr)* 5	<b>General Chemistry</b> CH 232 (4 cr) + 262 (1 cr) 5	<b>General Chemistry</b> CH 233 (4 cr) + 263 (1 cr) 5	<b>Principles of Biology</b> BI 211 4	<b>Principles of Biology</b> BI 212 4	<b>Principles of Biology</b> BI 213 4
<b>Ecological Engineering I</b> BEE 101 3	<b>Lifetime Fitness</b> HHS 231 2	<b>Ecological Engineering II</b> BEE 102* 3	<b>Soil Science</b> SOIL 205 4	<b>Statics</b> ENGR 211* 3	<b>Strength of Materials</b> ENGR 213* 3
	<b>Lifetime Fitness HHS 241/251 or PAC course</b> 1			<b>Engineering Statistics</b> ST 314 3	<b>Technical Writing</b> WR 327 3
15	15	16	16	18	17

Junior Year			Senior Year		
Fall	Winter	Spring	Fall	Winter	Spring
<b>Systems Analysis and Modeling</b> BEE 320 4	EcoE Thermo Transfer Processes BEE 322 4	<b>Ecological Engineering Laboratory</b> BEE 361 3	EcoE Design I (WIC) BEE 469 4	EcoE Design II (WIC) BEE 470 4	Science Elective II 3
<b>Ecological Fluid Mechanics</b> BE 311 4	Ecohydraulics BEE 312 4	Ecohydrology BEE 313 4	Engineering Elective III 4	BEE 468 Bioremediation 4	Engineering Elective IV 4
Ecology BI 370 3	<b>GIS &amp; Forest Engineering App</b> FE 257 3	Engineering Econ & Proj Mgmt ENGR 391 3	Science Elective II 3	Engineering Elective V 3 (4)	Engineering Elective VI 3
Science Elective I 3 (4)	Engineering Elective I 3 (4)	Engineering Elective II 4	Synthesis-Contemporary Global Issues Bacc Core Elective 3	<b>Perspectives-Literature and the Arts Bacc Core Elective</b> 3	Western Culture Bacc Core elective (if take PHL 205 as ethics course, take STS Bacc Core instead) 3
<b>Intro to Environ Law &amp; Policy</b> AREC 250 3	<b>The Responsible Engineer</b> IE 380 3	Difference, Power, and Discrimination (DPD) Bacc Core Elective 3	Professional Development Seminar BEE 415 1	<b>Perspectives-Cultural Diversity Bacc Core Elective</b> 3	
17 (18)	17 (18)	17	15		13

\*Required by the College of Engineering for entrance into the Professional Program

UCC courses are highlighted

UCC will offer ATS 201 Climate Science in 2017/18. See Advisor.