



# ENVIRONMENTAL FOCUS AREA: Sustainability

Department of Civil and Environmental Engineering

<b>General Education</b> (19 sh)	sh
RHET:1030 Rhetoric	4
Diversity & Inclusion	3
Be Creative	3
Approved Gen Ed Course	3
Approved Gen Ed Course	3
ENGL:1510 Introduction to Environmental Literature	3 OR
JMC:1800 Environmental Communication in the Digital Age	

<b>Math &amp; Basic Science Core</b> (24 sh)	sh
MATH:1550 Math I: Single Variable Calculus (P: ALEKS score ≥ 75 or MPT Level 3 score ≥ 9)	4
MATH 1560 Math II: Multivariable Calculus (P: MATH:1550)	4
MATH:2550 Math III: Matrix Algebra (P: MATH:1550)	2
MATH:2560 Math IV: Differential Equations (P: MATH:1560 & MATH:2550)	3
STAT:2020 Probability & Statistics For Engr & Phys Sci (P: MATH:1560)	3
CHEM:1110 Principles of Chemistry I (P: ALEKS score ≥ 55 or MPT Level 3 score ≥ 9)	4
PHYS:1611 Introductory Physics I / Lab (C: MATH:1550)	4

<b>Engineering Core</b> (7 sh)	sh
ENGR:1000 Engineering Success for First-Year Students (First semester standing)	1
ENGR:1100 Intro to Engineering Problem Solving	3
ENGR:1300 Intro to Engineering Computing (C: MATH:1550)	3

<b>Requirements</b> (58 sh)	sh
BIOL:1411 Foundations of Biology (P: CHEM:1110)	4
CHEM:1120 Principles of Chemistry II (P: CHEM:1110 with a minium grade of C-)	4
CHEM:2210 Organic Chemistry I (no lab required)	3
ENGR:2110 Statics (P: MATH:1550; C: MATH:1560 & PHYS:1611)	2
ENGR:2130 Thermodynamics (P: CHEM:1110 & PHYS:1611; C: MATH:1560)	3
ENGR:2510 Fluid Mechanics (P: MATH:2560 & ENGR:2710; C: ENGR:2130)	4
ENGR:2710 Dynamics (P: ENGR:2110 & MATH:1550)	3
ENGR:2720 Materials Science (P: CHEM:1110; C: MATH:1550)	3
EES:1080 Introduction to Environmental Science (no lab required)	3
CEE:3155 Principles of Environmental Engineering (with Lab) (P: CHEM:1110)	4
CEE:3371 Principles of Hydraulics and Hydrology (P: ENGR:2510)	3
CEE:3430 Water Treatment (with Lab) (P: ENGR:2510 & CEE:3155)	4
CEE:4102 Groundwater	3
CEE:4150 Environmental Chemistry (P: CHEM:1120)	3
CEE:4157 Environmental Engineering Design (P: CEE:3155)	3
CEE:4158 Solid and Hazardous Wastes	3
CEE:4159 Air Pollution Control Technology	3
CEE:4374 Water Resources Design (P: CEE:3371)	3

<b>Capstone Design Courses</b> (3 sh)	sh
CEE:4850 Project Design & Management in CEE (P: final semester; C: CEE:3003)	3

<b>Professional Skills</b> (4 sh)	sh
CEE:1010 Introduction to Careers in Env. Engineering	0
CEE:2010 Professional Practice and Ethics	1
CEE:3001 Leadership Skills for Engineers (junior standing)	1
CEE:3002 Technical Communication in CEE (sophomore standing)	1
CEE:3003 Project Management Skills (senior standing)	1

<b>Required: Sustainability</b> (6 sh)	sh
ALL GEOG:1070 Contemporary Environmental Issues	3
F/S GEOG:2013 Introduction to Sustainability	3

<b>Electives: Sustainability</b> (9 sh)	sh
<b>Electives: Focus Area, Minor, Certificate, etc.</b>	sh
select 1 course from the list below	
F/S CNW:2740 The Art and Craft of Writing about the Environment	3
F/S ENTR:3500 Social Entrepreneurship	3
F/S ENTR:3500 Social Entrepreneurship	3
F/S FREN:1007 Nature/Ecology French Philosophy and Fiction	3
F GEOG:4770/AFAM:4770/GHS:4770 Environmental Justice	3
F/S HIST:3230 American Environmental History	3
S LAW:8622 International Environmental Law	3
F/S MGMT:2000 Introduction to Law	3
S	3
RHET:3700 Advocacy and Sustainability: Crafting Stories of People, Place, and Resilience	
S URP:6273/PBAF:6273 Community Development Through Creative Placemaking	3

<b>Electives: Focus Area, Minor, Certificate, etc.</b>	sh
select 1 course from the list below	
W ABRD:3445 India Winterim (with consent of advisor)	3
F/S ANTH:2261 Human Impacts on the Environment	3
S CEE:4107 Sustainable Systems	3
S ENTR:3700 Sustainable Product Innovation and Management	3
S ENTR:4100 International Entrepreneurship, Culture, and Social Impact	3
F/S EVNT:3180 Sustainable Events	3
F GEOG:2930 Water Resources	3
S GEOG:3400 Iowa Environmental Policy in Practice	3
S GEOG:3760/GHS:3760 Hazards and Society	3
S GHS:3180 Climate Change and Health	3
S GHS:4100 Topics in Global Health (when topic is sustainability)	3
F/S MKTG:4250 Marketing and Sustainability	3
S TDSN:3260 Design for Production (when topic is special issues and topics in design)	4
S URP:4170 Megacities Seminar	3
S URP:6256/PBAF:6256 Environmental Policy	3
S URP:6273/PBAF:6273 Community Development Through Creative Placemaking	3

<b>Electives: Focus Area, Minor, Certificate, etc.</b>	sh
select 1 course from the list below	
Any 3000 level or above course(s) in CEE	
F CEE:2015 Civil Engineering Tools	2
S ISE:2500 Engineering Economy (C: STAT:2020)	3
F/S GEOG:1050 Foundations of GIS	4
Any other course approved for the Sustainability Certificate.	

Students in the Focus Area will receive the Sustainability Certificate. Students must enroll in the certificate through the University College.