



DEPARTMENT OF GEOGRAPHY & ENVIRONMENTAL ENGINEERING

ENVIRONMENTAL ENGINEERING MAJOR (EVE1)

CLASS OF 2019



EVE1 or EVE1H

NAME: _____

TERM 1	TERM 2	TERM 3	TERM 4	TERM 5	TERM 6	TERM 7	TERM 8
MA103	MA104	MA205	MA206	SS202	SS307	LW403	HI302
CH101	CH102	EV203	PY201	PL300	EV481	EV394	MX400
EN101	EN102	PH205	PH206	EV388a	EV397	EV402	EV488
HI10X	HI10X	LX203	LX204	EV396	EV401	EV490	EV491
PL100	IT105	EV301	SS201	MC311	MA366	EE301	EV ENG ELECTIVE
			XS391		EV ENG ELECTIVE	EV ENG ELECTIVE	

22	Core Course	16	EV Engineering Course
1	Science Depth	3	Complementary Support Course
1	STEM Depth		

- **Frequently Asked Questions**
- **What is the job outlook for environmental engineers?** In 2012, CNN Money ranked environmental engineering in the top 20 for jobs with the fastest growth potential. They listed a median pay of \$82,300 for a graduate with two years experience.
- **What do environmental engineers do?** Environmental engineers design processes and conduct analyses to protect public health and the environment. According to the American Academy of Environmental Engineers, the major areas include air pollution control, industrial hygiene, radiation protection, hazardous waste management, toxic materials control, water supply, wastewater management, storm water management, solid waste disposal, public health and land management.
- **Is this program focused on wastewater?** No! One of the 16 courses in the major covers wastewater. The curriculum is designed to give graduates sufficient breath to practice environmental engineering at the entry level and attend virtually any environmental engineering graduate program.
- **My roommate's major has 40 courses, why does this one have 43?** The environmental engineering major is ABET accredited. Forty-three courses are needed to provide sufficient depth in engineering to maintain accreditation.
- **Why should I join a major that is ABET accredited?** ABET accreditation puts our graduates on the easiest path to become licensed engineers. Because practicing environmental engineers are professionals who protect public health, similar to physicians, we must be licensed.
- **Is a 43 course major too intense for a corps squad athlete?** No. We've had corps squad athletes, senior leaders in the Corps and the occasional double major.

ENVIRONMENTAL ENGINEERING

CORE CURRICULUM AND ENGINEERING SEQUENCE:

- Complete the 22-course core curriculum.
- Complete CH102 as the Science Depth course.
- Complete MA205 as the STEM Depth course.

ENVIRONMENTAL ENGINEERING REQUIRED COURSES

- Complete the following eleven courses:

Course	Course Title
EV301	Environmental Science for Engineers and Scientists
EV388a	Physical Geology
EV394	Hydrogeology/Hydraulic Systems
EV396	Environmental Biological Systems
EV397	Air Pollution Engineering
EV401	Physical and Chemical Treatment
EV402	Biochemical Treatment
EV481	Water Resources Planning and Design
EV488	Solid & Hazardous Waste Treatment and Remediation
MC311	Thermal Fluid Systems I
XS391	Principles & Applications of Environmental Chemistry

ENVIRONMENTAL ENGINEERING FIELD ELECTIVES

- Choose three electives from the **ENVIRONMENTAL ENGINEERING FIELD ELECTIVES list**. The sum of the Engineering Topics (ET) credits for the three chosen field electives must total **8** or greater.

Course	Course Title
CE350	Infrastructure Engineering
CE371	Soil Mechanics/Foundation Engineering
CE380	Hydrology/Hydraulic Design
CE450	Construction Management
CH362	Mass and Energy Balances
EE377	Electrical Power Engineering
EM381	Engineering Economy
EM411	Project Management
EV377	Remote Sensing
EV380	Surveying
EV398	Geographic Information Systems
EV489a	Advanced Individual Study I
EV489b	Advanced Individual Study II
MC300	Fundamentals of Engineering Mechanics and Design
MC312	Thermal-Fluid Systems II
MC364	Mechanics of Materials
MC380	Engineering Materials
ME350	Introduction to Thermal Systems with Army Applications
ME370	Computer Aided Design
ME472	Energy Conversion Systems
SE375	Statistics for Engineers
SE385	Decision Analysis
XE442	Alternative Energy Engineering

COMPLEMENTARY SUPPORT COURSES

- Complete the following three courses:

Course	Course Title
PH206	Physics II
MA366	Applied Engineering Math
EE301	Fundamentals of Electrical Engineering*
*EE301 fulfills the IT/Cyber requirement for this major, and is a Complementary Support Course for the major.	

INTEGRATIVE EXPERIENCE

- Complete the following two courses:

Course	Course Title
EV490	Environmental Engineering Design
EV491	Advanced Environmental Engineering Design

HONORS PROGRAM IN ENVIRONMENTAL ENGINEERING

- Cadets pursuing the honors program must complete Advanced Individual Studies I EV489A as one of their field electives, and attain an APSC of at least 3.0 in the USMA core curriculum and an APSC of at least 3.5 in the major.

REQUIRED COURSES

Course	Course Title
EV489a	Advanced Individual Study I