

# ENVIRONMENTAL ENGINEERING FLOWCHART

## Academic Year 2015-16

Updated: 3/11/15

F INDICATES COURSE IS OFFERED FALL SEMESTER

S INDICATES COURSE IS OFFERED SPRING SEMESTER

Su INDICATES COURSE IS OFFERED SUMMER SEMESTER

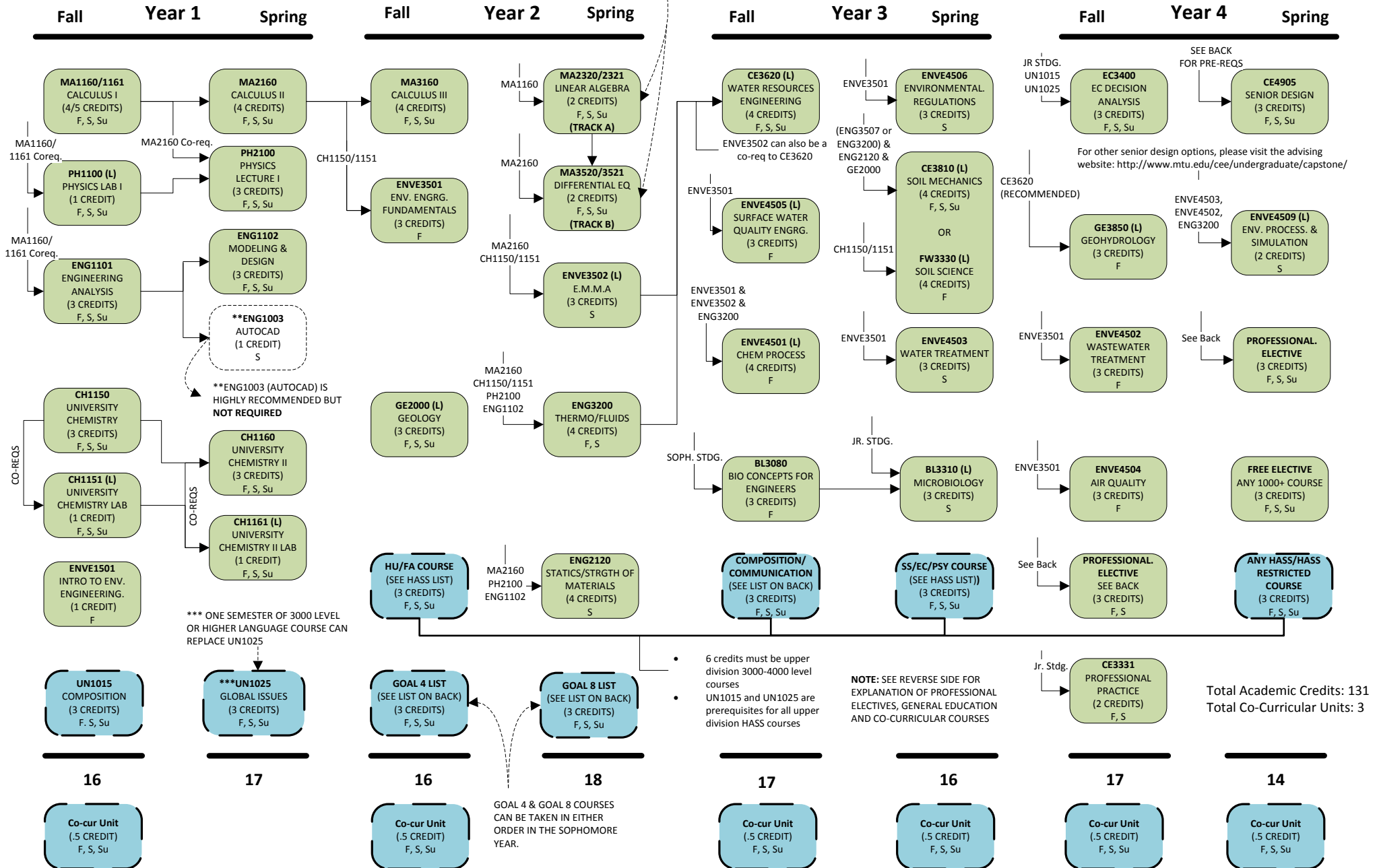
(L) INDICATES A COURSE WHICH INCLUDES A LAB MUST BE SCHEDULED IN ADDITION TO THE LECTURE

**SAMPLE**

= General Education Requirement

NOTE: LINEAR ALGEBRA & DIFFERENTIAL EQUATIONS CAN BE TAKEN DURING THE SAME SEMESTER (MA2321 & MA3521) OR SEPARATE SEMESTERS (MA2320 & MA3520)

This is not an official list of degree requirements.  
Adjustments may be required due to curriculum changes.



## PROFESSIONAL ELECTIVES

Specialty Area	Course #	Course Title	Credits	Semester	Prerequisites
<b>Air Quality</b>	ENVE4515	Atmospheric Chemistry	3	Spring	ENVE4504 or ENVE4501, SR
	UN4000	Remote Sensing Seminar	1	Fall, Spring	Sophomore Standing
<b>Surface Water Quality</b>	ENVE5504	Surface Water Quality Modeling	3	Spring	ENVE4505
	FW4220	Wetlands	4	Fall	---
<b>Groundwater</b>	GE3040	Fund. of Applied and Environ. Geophysics	4	Spring	PH2200
	GE4800	Groundwater Engineering	3	On Demand	GE3850
<b>Manufacturing</b>	MEEM4685	Env Resp Design & Manuf	3	Spring – alt yrs	Senior Standing
<b>Water Resources</b>	CE4620	River and Floodplain Hydraulics	3	Fall	CE3620
	CE4640	Stormwater Management and LID	3	Spring, Su	CE3620
	CE5664	Water Resources Modeling	3	On Demand	CE3620
	ENVE4507	Distribution and Collection	3	Spring	CE3620 and ENVE3501
	FW3540*	An Intro to GIS for Natural Resource Mgmt	4	Spring	MA3710**
	FW4220	Wetlands	4	Fall	---
	UN4000	Remote Sensing Seminar	1	Fall, Spring	Sophomore Standing
<b>Math/Physical Science</b>	ENVE4518	Aquatic Biogeochemistry	3	Fall	ENVE4501 (C), ENVE4505 (C)
	ENVE4528	Global Biogeochemistry	3	Fall	ENVE4501 (C)
	MA4630	Numerical Methods	3	Fall	MA3530***
	PH1200/2200	Physics II	4	Fall, S, Su	PH2100, MA2160 (co-req)
<b>Computer Science</b>	CS1121	Introduction to Computer Science I	3	Fall, S, Su	MA1032 (Co-req)
	CS1122	Introduction to Computer Science II	3	Fall, S, Su	CS1121
<b>Business &amp; Construction</b>	ACC2000	Accounting Principles I	3	Fall, S, Su	---
	MKT3000	Principles of Marketing	3	Fall, S, Su	Cannot be a Freshman
	CE3332	Fundamentals of Construction Engineering	3	Fall, S, Su	Sophomore Standing
	EC3300	Industrial Organization	3	Fall, S, Su	EC2001, UN1015, UN1025
<b>Environmental Policy</b>	SS3520	U.S. Environmental History	3	Spring - alt yrs	
	SS3630	Environmental Policy and Politics	3	Fall	Cannot be a Freshman
<b>Other applicable courses</b>	ENVE4511	Solid and Hazardous Waste Engineering	3	Spring	ENVE3501
	CE4820	Foundation Engineering	3	Fall	CE3810
	CE4830	Geosynthetics Engineering	3	Spring	CE3810
	CE4990	Special Topic (Varies by semester)	3	Fall, Spring	Varies
	SU2000	Surveying & GIS Fundamentals	2	Fall, Spring	---

NOTE: OTHER COURSES MAY BE USED TO SATISFY THE PROFESSIONAL ELECTIVES REQUIREMENT IF APPROVED BY THE DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING ACADEMIC ADVISOR.

\*FW3540 WILL BE OPEN TO FORESTRY MAJORS ONLY UNTIL THE INITIAL REGISTRATION PERIOD IS OVER

\*\*ENVE3502 SHOULD SUBSTITUTE FOR MA3710. CONTACT THE SFRES DEPARTMENT TO GET IT WAIVED.

\*\*\*MA3520 SHOULD SUBSTITUTE FOR MA3530

### SENIOR DESIGN PREREQUISITES:

#### REQUIRED

ENVE3501 OR ENVE3503, ENVE3502, AND CE3620

#### PLUS 4 OF THE FOLLOWING:

CE3810, ENVE4502, ENVE4504, ENVE4506 OR GE3850

## GENERAL EDUCATION REQUIREMENTS

### A. CORE COURSES (12 CREDITS)

1. **UN1015** (COMPOSITION)
2. **UN1025** (GLOBAL ISSUES)
3. **GOAL 4** (CRITICAL AND CREATIVE THINKING) \*
4. **GOAL 8** (SOCIAL RESPONSIBILITY AND ETHICAL REASONING) \*\*

#### \*GOAL 4 LIST

FA2330  
FA2520  
FA2720  
FA2820  
HU2130  
HU2503  
HU2504  
HU2538  
HU2700  
HU2820  
HU2910  
SS2300

#### \*\*GOAL 8 LIST

EC2001  
PSY2000  
SS2100  
SS2200  
SS2400  
SS2500  
SS2501  
SS2502  
SS2503  
SS2504  
SS2505  
SS2600  
SS2601  
SS2700

### B. HASS COURSES (12 CREDITS)

(General Ed Website, bottom left)

1. SECOND COURSE IN COMMUNICATION/COMP  
\_\_\_\_\_
2. HU OR FA COURSE (HASS LIST)  
\_\_\_\_\_
3. SS OR EC OR PSY COURSE (HASS LIST)  
\_\_\_\_\_
4. ANY HASS OR HASS RESTRICTED COURSE (HASS LIST)  
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- 6 credits must be upper division 3000-4000 level courses
- No more than 3 credits from the HASS Restricted list can be used to satisfy HASS requirements.
- Each course can satisfy only one requirement.

### C. CO-CURRICULAR ACTIVITIES (3 UNITS)

PE/FA/AR/AF \_\_\_\_\_  
PE/FA/AR/AF \_\_\_\_\_  
PE/FA/AR/AF \_\_\_\_\_

PE/FA/AR/AF \_\_\_\_\_  
PE/FA/AR/AF \_\_\_\_\_  
PE/FA/AR/AF \_\_\_\_\_

UNDERGRADUATE CATALOG: <http://www.mtu.edu/catalog/undergraduate/course-descriptions/>

GENERAL EDUCATION: <http://www.mtu.edu/provost/academic-policies/general-education/programs/>

CO-CURRICULAR LIST: <http://www.mtu.edu/registrar/faculty-staff/advisors/gen-ed/>