

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

(C) INDICATES THE COURSE CAN EITHER BE TAKEN AT THE SAME TIME (CO-REQ) OR  
 TAKEN PRIOR TO THE COURSE (PRE-REQ)

# ENVIRONMENTAL ENGINEERING FLOWCHART

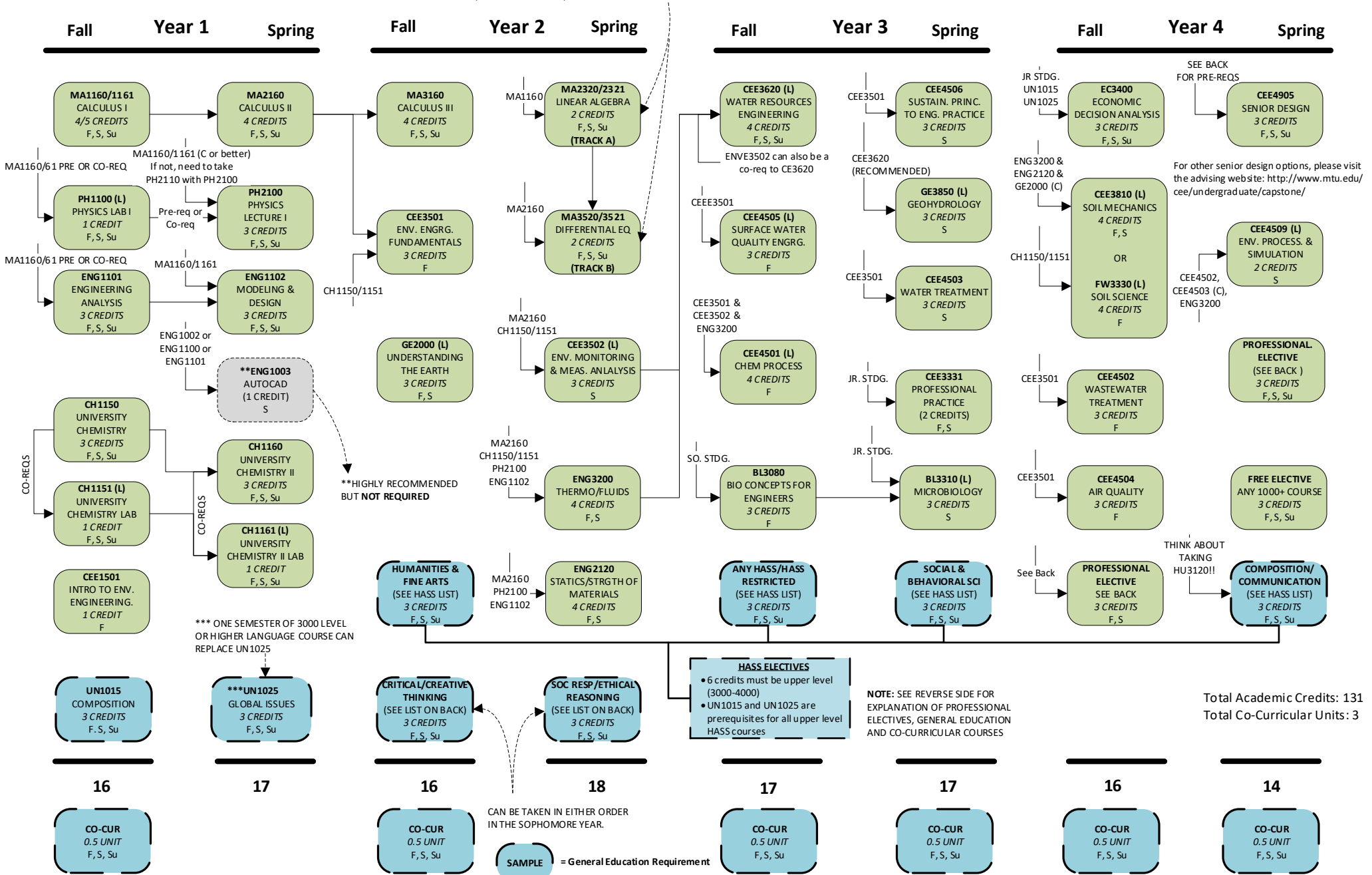
## Academic Year 2020-21



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

Updated: 6/8/20

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



# Professional Electives

(UNDERGRADUATE CATALOG: <http://www.mtu.edu/catalog/courses/>)

**ANY 3000 OR HIGHER LEVEL COURSE IN CIVIL AND ENVIRONMENTAL ENGINEERING OR IN ANY OTHER ENGINEERING DEPARTMENT.**

FOR EXAMPLE:

CEE3332 Fundamentals of Construction Engineering (F, S)  
CEE4507 Distribution and Collection (S)  
CEE4511 Solid and Hazardous Waste Engineering (S)  
CEE4515 Atmospheric Chemistry (S)  
CEE4518 Aquatic Biogeochemistry (F)  
CEE4528 Global Biogeochemistry (F)  
CEE4610 Water Resources System Modeling & Design (S)  
CEE4620 River and Floodplain Hydraulics (F)  
CEE4640 Stormwater Management and LID (Su - ONLINE)  
CEE4650 Hydraulic Structures (F)  
CEE4820 Foundation Engineering (F)  
CEE4830 Geosynthetics Engineering (S – ALT YEARS)  
CEE4990 Special Topics (Varies by semester) (F, S, Su)  
GE 3040 Fund. of Applied and Environ. Geophysics (S)  
GE4800 Groundwater Engineering (ON DEMAND)  
MEEM4685 Env. Resp. Design and Manuf. (S – ALT YEARS)

**ANY 1000 OR HIGHER LEVEL COURSE IN BIOLOGY, CHEMISTRY, COMPUTER SCIENCE, CONSTRUCTION MANAGEMENT, GEOLOGY, FORESTRY, OR PHYSICS.**

FOR EXAMPLE:

CS1121 Intro to Programming I (F, S, Su)  
CS1122 Intro to Programming II (F, S, Su)  
FW3540 Intro to GIS for Natural Resource Management (S)  
FW4220 Wetlands (F)  
FW4540 Remote Sensing of the Environment (F)  
PH1200/2200 Physics II (F, S, Su)

**ANY 4000 OR HIGHER LEVEL COURSE IN MATHEMATICS**

FOR EXAMPLE:

MA4610 Numerical Linear Algebra (S)  
MA4620 Numerical Methods for PDEs (F)  
MA4720 Design and Analysis of Experiments (S)

**SENIOR DESIGN PREREQUISITES:  
REQUIRED**

CEE3501 OR CEE3503, CEE3502, AND CEE3620

**PLUS 4 OF THE FOLLOWING:**

CEE3810/FW3330, CEE4502, CEE4504,  
CEE4506, GE3850

**ANY 2000 OR HIGHER LEVEL COURSE IN BUSINESS OR ECONOMICS.  
(ACC, BUS, EC, FIN, MGT, MIS, MKT).**

FOR EXAMPLE:

ACC2000 Accounting Principles I (F, S, Su)  
EC3300 Industrial Organization (F, S, Su)  
MKT3000 Principles of Marketing (F, S, Su)  
EC4640 Natural Resources Economics (F)  
EC4650 Environmental Economics (F)

**ANY 2000 OR HIGHER LEVEL COURSE IN GEOSPATIAL ENGINEERING  
(SU).**

FOR EXAMPLE:

SU2000 Surveying & GIS Fundamentals (F, S)

**ANY 3000 OR HIGHER LEVEL COURSE IN HUMANITIES, SOCIAL  
SCIENCES, OR UNIVERSITY WIDE. (HU, SS, UN).**

FOR EXAMPLE:

HU3120 Technical and Professional Communication (F, S, Su)  
SS3520 U.S. Environmental History (F)  
SS3801 Science, Technology and Society (F)  
SS3811 Energy Security and Justice (S – ALT YEARS)  
SS3630 Environmental Policy and Politics (F – ALT YEARS)  
SS4200 Environmental Anthropology (F – ALT YEARS)  
UN4000 Seminar Series in Earth, Planetary & Space Sciences (F, S)

**NOTES:**

- AN OVERALL GPA OF 3.00 IS REQUIRED TO TAKE GRADUATE LEVEL COURSES (5000 LEVEL).
- A MAXIMUM OF TWO (2) GRADUATE LEVEL COURSES MAY BE USED TOWARD YOUR BS ENVE DEGREE.
- OTHER COURSES MAY BE USED TO SATISFY THE PROFESSIONAL ELECTIVES REQUIREMENT IF APPROVED BY THE DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING ACADEMIC ADVISOR.

**UNDERGRADUATE CATALOG:**

<http://www.mtu.edu/catalog/courses/>

**GENERAL EDUCATION (CO-CURRICULAR & HASS LIST):**

<https://www.mtu.edu/registrar/faculty-staff/advisors/gen-ed/>

## GENERAL EDUCATION REQUIREMENTS

### A. CORE COURSES (12 CREDITS)

1. **UN1015** (COMPOSITION)
2. **UN1025** (GLOBAL ISSUES) or 3000+ level Modern Language Course
3. **CRITICAL AND CREATIVE THINKING**  
FA2330, FA2520, FA2720, FA2820, HU2130, HU2324, HU2501, HU2503, HU2538, HU2700, HU2820, HU2910, SS2300
4. **SOCIAL RESP. & ETHICAL REASONING**  
EC2001, PSY2000, SS2100, SS2200, SS2400, SS2500, SS2501, SS2502, SS2503, SS2504, SS2505, SS2600, SS2610, SS2700

### B. HASS COURSES (12 CREDITS) (General Ed Website, left)

1. COMMUNICATION/COMPOSITION:
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2. HUMANITIES & FINE ARTS:
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3. SOCIAL & BEHAVIORAL SCIENCES:
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4. ANY HASS OR HASS RESTRICTED COURSE:
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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) (General Ed Website, left)