

KEY:
F: INDICATES COURSE IS OFFERED FALL SEMESTER
S: INDICATES COURSE IS OFFERED SPRING SEMESTER
Su: INDICATES COURSE IS OFFERED SUMMER SEMESTER

ENVIRONMENTAL ENGINEERING FLOWCHART

Academic Year 2024-25



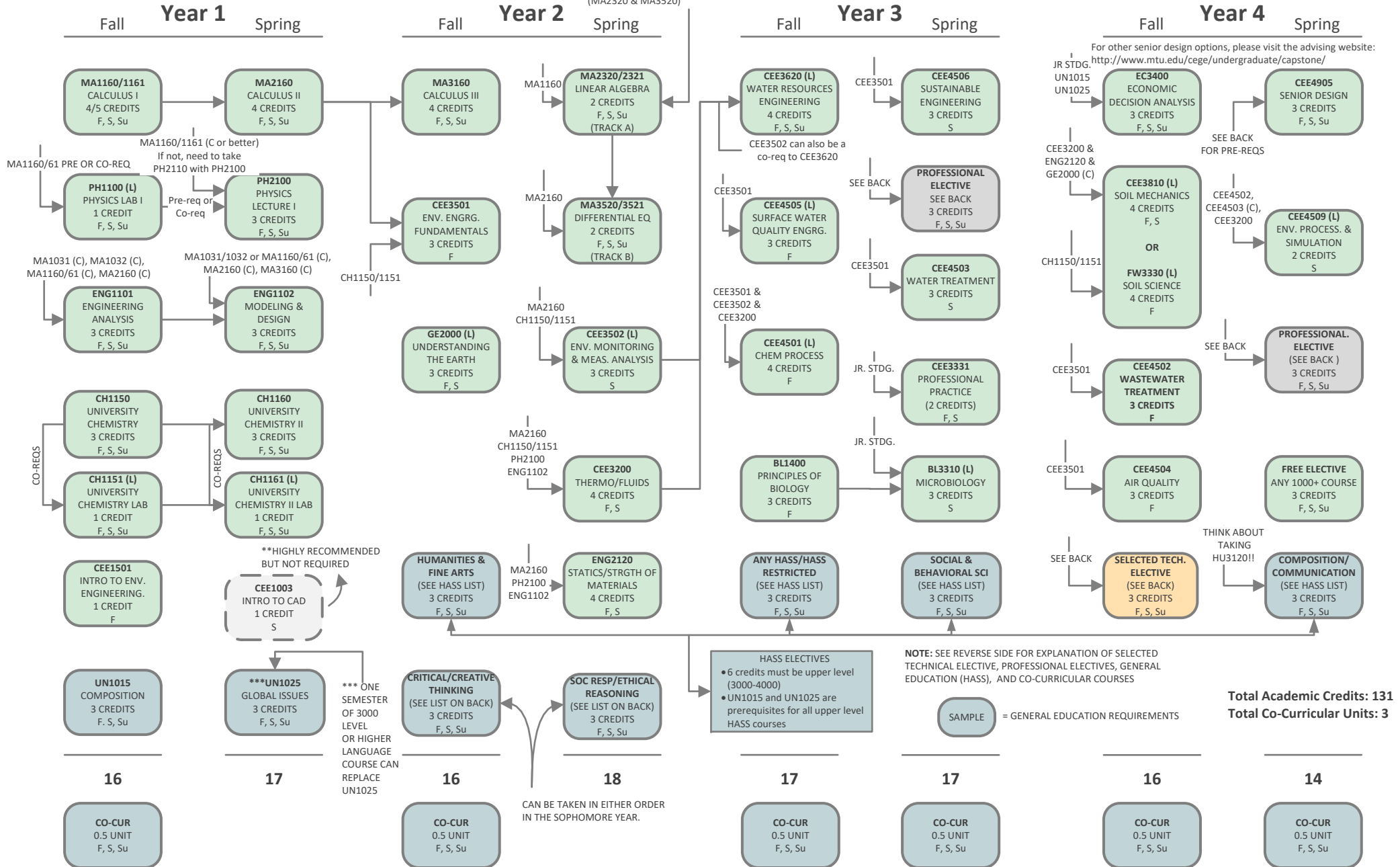
This is not an official list of degree requirements. Adjustments may be required due to curriculum changes.

Updated: 5.31.2024

(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)

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

For other senior design options, please visit the advising website:
<http://www.mtu.edu/cege/undergraduate/capstone/>



PROFESSIONAL ELECTIVES (6 cr)

- ANY **1000 OR HIGHER** LEVEL COURSE IN **BIOLOGY, CHEMISTRY, COMPUTER SCIENCE, CONSTRUCTION MANAGEMENT, GEOLOGY, FORESTRY, OR PHYSICS** (BL, CH, CS, CMG, GE, FW, PH)
- ANY **2000 OR HIGHER** LEVEL COURSE IN **BUSINESS OR ECONOMICS**. (ACC, BUS, EC, FIN, MGT, MIS, MKT, OSM)
- ANY **2000 OR HIGHER** LEVEL COURSE IN **GEOSPATIAL ENGINEERING** (SU)
- ANY **3000 OR HIGHER** LEVEL COURSE IN **CIVIL AND ENVIRONMENTAL ENGINEERING OR IN ANY OTHER ENGINEERING DEPARTMENT**
- ANY **3000 OR HIGHER** LEVEL COURSE IN **HUMANITIES, SOCIAL SCIENCES, OR UNIVERSITY WIDE**. (HU, SS, UN)
- ANY **4000 OR HIGHER** LEVEL COURSE IN **MATHEMATICS** (MA)

INTERESTS?

- **REMEDIATION** – think about taking GE 3850 (Geohydrology) and CEE 4511 (Solid & Hazardous Waste Engineering)
- **NATURAL SYSTEMS** – think about taking CEE 4518 (Aquatic Biogeochemistry), CEE 4665 (Stream Restoration), and FW 4220 (Wetlands)
- **MUNICIPAL ENGINEERING** – think about taking CEE 4507 (Water Distribution and Wastewater Collection), CEE 4511 (Solid & Hazardous Waste Engineering), and SU 2000 (Surveying and GIS Fundamentals)* (only 2 credits)
- **ATMOSPHERIC PROCESSES & AIR POLLUTION** – think about taking MEEM 4240 (Combustion & Air Pollution) and CH 4515 (Atmospheric Chemistry)
- **WATER RESOURCES** – think about taking CEE 4620 (River and Floodplain Hydraulics), CEE 4640 (Stormwater Management and Low Impact Development), and CEE 4665 (Stream Restoration)

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, ENVIRONMENTAL, AND GEOSPATIAL ENGINEERING ACADEMIC ADVISOR.

SELECTED TECHNICAL ELECTIVES (3 cr)

- GE3850** Geohydrology (Spring)
- CEE4507** Water Distribution and Wastewater Collection (Spring)
- CEE4511** Solid and Hazardous Waste Engineering (Spring)
- CEE4518** Aquatic Biogeochemistry (Fall – Alt Years beg 2014-2015)
- CEE4521** Bioremediation Engineering (Spring)
- CEE4528** Global Biogeochemistry (Fall – Alt Years beg 2015-2016)
- CEE4620** River & Floodplain Hydraulics (Fall)
- CEE4640** Stormwater Management and LID (Summer)
- CEE4665** Stream Restoration (Spring)
- CEE4993** Engineering with Developing Communities (Fall)
- CH4515** Atmospheric Chemistry (Spring)
- MEEM4240** Combustion & Air Pollution (Fall/Spring)

SENIOR DESIGN PREREQUISITES

Complete **7** of the following courses: **CEE3620, CEE3810/FW3330, CEE4501, CEE4502, CEE4503, CEE4504, CEE4505, CEE4506, CEE4509**

UNDERGRADUATE CATALOG (COURSE DESCRIPTIONS):

www.mtu.edu/catalog/courses/

GENERAL EDUCATION (CO-CURRICULAR & HASS LIST):

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

ART1000, ART2195, HU2130, HU2324, HU2501, HU2503, HU2538, HU2700, HU2701, HU2820, HU2910, MUS1000, MUS1140, SND1000, SS1500, SS2300, THEA1000

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. COMM/COMP: _____

2. HUMANITIES & FINE ARTS: _____

3. SOCIAL & BEHAVIORAL SCIENCES: _____

4. ANY HASS OR HASS RESTRICTED COURSE: _____

- 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)

1. _____ 2. _____ 3. _____
4. _____ 5. _____ 6. _____