

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)

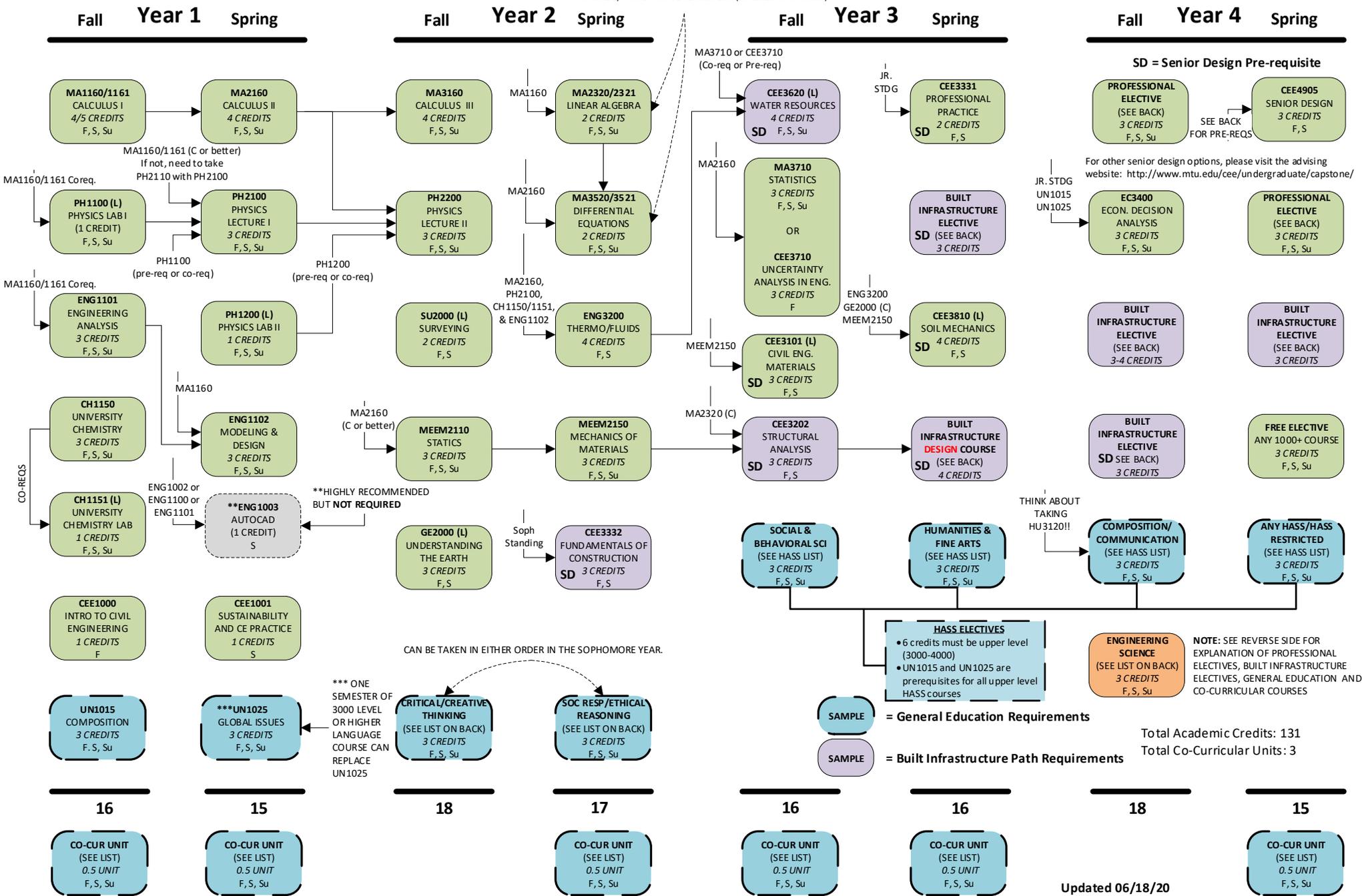
# CIVIL ENGINEERING FLOWCHART



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

## Built Infrastructure Academic Year 2020-21

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



## Built Infrastructure Requirements

### BUILT INFRASTRUCTURE DESIGN COURSE (select 1)

CEE4213	STRUCTURAL CONCRETE DESIGN	Spring	4 cr.
CEE4223	STEEL DESIGN 1	Fall	4 cr.

### BUILT INFRASTRUCTURE ELECTIVES (select 4)

CEE4020	COMPUTER APPLICATIONS	Fall	3 cr.
CEE4201	MATRIX STRUCTURAL ANALYSIS	Fall	3 cr.
CEE4213	STRUCTURAL CONCRETE DESIGN	Spring	4 cr.
CEE4223	STEEL DESIGN 1	Fall	4 cr.
CEE4233	STRUCTURAL TIMBER DESIGN	Spring	3 cr.
CEE4244	LOADS FOR CIVIL STRUCTURES	Spring	3 cr.
CEE4333	ESTIMATING, PLANNING, CONST.	Spring	3 cr.
CEE4344	CONSTRUCTION SCHEDULING	Spring	3 cr.
CEE4820	FOUNDATION ENGINEERING	Fall	3 cr.
CEE4830	GEOSYNTHETICS	Spring	3 cr.
CEE4850	ROCK ENGINEERING	Spring	3 cr.
CEE5212	PRESTRESSED CONCRETE DESIGN	Fall	3 cr.
CEE5213	CONCRETE/MASONRY BLDG SYS	Fall	3 cr.

### UNDERGRADUATE CATALOG:

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

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

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

## PROFESSIONAL ELECTIVES

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

- Any **1000** or higher level course in **Computer Science, Fine Arts or Forestry**. (CS, FA, FW)
- Any **2000** or higher level course in **Biological Sciences, Chemistry, Construction Management, Geology, Physics or Geospatial Engineering**. (BL, CH, CMG, GE, PH, SU)
- Any **2000** or higher level course in **Business or Economics** (ACC, BUS, EC, FIN, MGT, MIS, MKT, OSM).
- Any **3000** or higher level course in **Mathematics, Humanities, Psychology, Social Sciences or University Wide** (MA, HU, PSY, SS, UN).
- Any **3000** or higher level course in **Civil and Environmental Engineering** (CEE) or **any other Engineering Dept.**

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

### Senior Design (SD) Pre-reqs

#### (complete 7 of the following)

CEE3101, CEE3331, CEE3332, CEE3202, CEE3620, CEE3810, BUILT INFRASTRUCTURE DESIGN COURSE, & 2 BUILT INFRASTRUCTURE ELECTIVES

### Engineering Science Elective List (3 credits)

BE2700	BIOMEDICAL SIGNALS & SYSTEMS
CM2110	FUND. OF CHEM ENGRG 1
CM2200	INTRO TO MINERALS & MATERIALS
EE3010	CIRCUITS AND INSTRUMENTATION
MSE2100	INTRO TO MATERIALS SCI & ENGRG
MEEM2201	THERMODYNAMICS
MEEM2700	DYNAMICS

## 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. 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)

PE/FA/AR/AF_____	PE/FA/AR/AF_____
PE/FA/AR/AF_____	PE/FA/AR/AF_____
PE/FA/AR/AF_____	PE/FA/AR/AF_____