

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

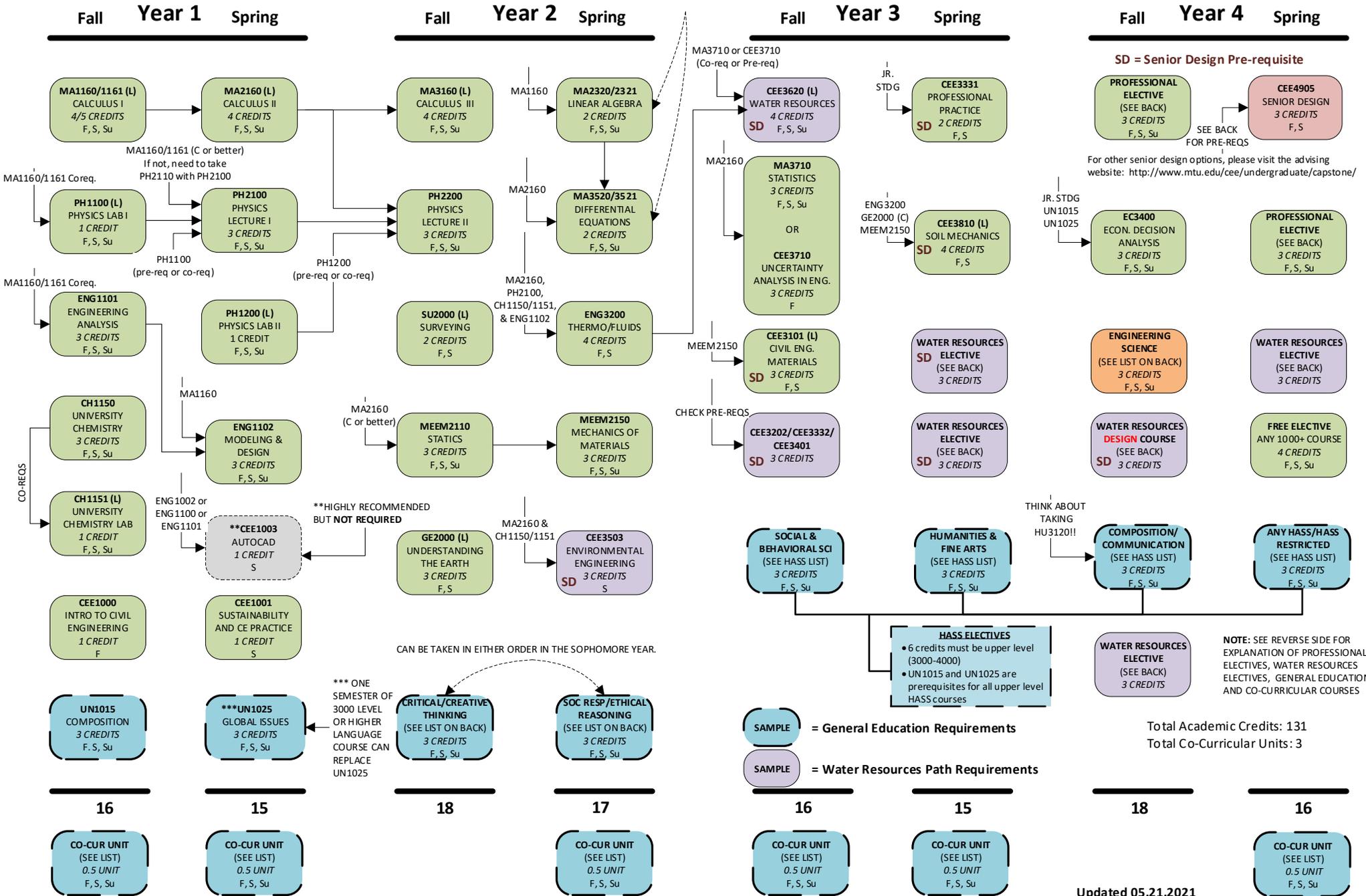
Water Resources Path

Academic Year 2021-22

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.



Water Resources Requirements

Choose 1 course from the following

CEE3202	STRUCTURAL ANALYSIS	F, Sp	3 cr.
CEE3332	FUND. OF CONSTRUCTION	F, Sp	3 cr.
CEE3401	TRANSPORTATION ENGRG	F, Sp	3 cr.

WATER RESOURCES DESIGN COURSE (select 1)

CEE4620	RIVER/FLOODPLAIN HYDRAULICS	Fall	3 cr.
CEE4640	STORMWATER MANAGE. & LID	Su	3 cr.
CEE4665	STREAM RESTORATION	Spring	3 cr.

WATER RESOURCES ELECTIVES (select 4)

CEE4502	WASTE TREATMENT	Fall	3 cr.
CEE4503	WATER TREATMENT	Spring	3 cr.
CEE4505	SURFACE WATER QUALITY	Fall	3 cr.
CEE4507	WATER DISTRIBUTION/COLLECT.	Spring	3 cr.
CEE4610	WATER RES. SYSTEM MODELING	Spring	3 cr.
CEE4620	RIVER/FLOODPLAIN HYDRAULICS	Fall	3 cr.
CEE4640	STORMWATER MANAGE. & LID	Su	3 cr.
CEE4650	HYDRAULIC STRUCTURES	Var.	3 cr.
CEE4665	STREAM RESTORATION	Spring	3 cr.
CEE5620	STOCHASTIC HYDROLOGY	Spring	3 cr.
CEE5666	WR PLANNING & MANAGEMENT	Var.	3 cr.
GE3850	GEOHYDROLOGY	Spring	3 cr.
GE4800	GROUNDWATER ENGRG	Spring	3 cr.

Senior Design (SD) Pre-reqs

(complete 7 of the following)

CEE3101, CEE3331, (CEE3202 or CEE3332 or CEE3401), CEE3620, CEE3810, CEE3503, WATER RESOURCES DESIGN COURSE, & 2 WATER RESOURCES ELECTIVES

Engineering Science Elective

(select 1)

BE2700	BIOMEDICAL SIGNALS & SYSTEMS
CM2110	MATERIAL AND ENERGY BALANCES
CM2200	INTRO TO MINERALS & MATERIALS
EE3010	CIRCUITS AND INSTRUMENTATION
MSE2100	INTRO TO MATERIALS SCI & ENGRG
MEEM2201	INTRODUCTORY THERMODYNAMICS
MEEM2700	DYNAMICS

(COURSE DESCRIPTIONS)

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

- Any **1000** or higher level course in **Computer Science, Fine Arts or Forestry**. (CS, ART, FW, MUS, SND, THEA)
- 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.

GENERAL EDUCATION REQUIREMENTS

A. CORE COURSES (12 CREDITS)

- UN1015** (COMPOSITION)
- UN1025** (GLOBAL ISSUES) or 3000+ level Modern Language Course
- CRITICAL AND CREATIVE THINKING**
ART1000, HU2130, HU2324, HU2501, HU2503, HU2538, HU2700, HU2820, HU2910, MUS1000, SND1000, SS2300, THEA1000
- 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)

- COMM/COMP:
-

- HUMANITIES/FINE ARTS:
-

- SOCIAL & BEHAVIORAL SCIENCES:
-

- 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)

- _____
- _____
- _____
- _____
- _____
- _____