**Transportation Requirements**

**Senior Design (SD) Pre-reqs**
(complete 7 of the following)
CEE3101, (CEE3202 or CEE3503 or CEE3620), CEE3331, CEE3332, CEE3401, CEE3810
TRANSPORTATION DESIGN COURSE, & 2 TRANSPORTATION ELECTIVES

Choose 1 course from the following

**CEE3101** STRUCTURAL ANALYSIS F, Sp 3 cr.

**CEE3202** or **CEE3503** or **CEE3620**,

**CEE3331**, **CEE3332**, **CEE3401**, **CEE3810**

TRANSPORTATION DESIGN COURSE & 2 TRANSPORTATION ELECTIVES

TRANSPORT DESIGN COURSE (Select 1)
CEE4401 PAVEMENT DESIGN Fall 3 cr.
CEE4407 TRANSPORTATION DESIGN Spring 4 cr.

TRANSPORTATION ELECTIVES (select 4)
CEE4020 DIGITAL PROJECT DELIVERY Fall 3 cr.
CEE4101 BITUMINOUS MATERIALS Fall 3 cr.
CEE4333 ESTIMATING, PLAN., CONST Spring 3 cr.
CEE4344 CONSTRUCTION SCHEDULING Spring 3 cr.
CEE4401 PAVEMENT DESIGN Fall 3 cr.
CEE4402 TRAFFIC ENGINEERING Fall 3 cr.
CEE4404 RAILROAD ENGINEERING Fall 3 cr.

*CEE4404 RAILROAD ENGINEERING* (select 1)
CE2700 BIOMEDICAL SIGNALS & SYSTEMS 3 cr.
CM2110 MATERIAL AND ENERGY BALANCES 3 cr.
CM2200 INTRO TO MINERALS & MATERIALS 3 cr.
EE3010 CIRCUITS AND INSTRUMENTATION 3 cr.
MSE2100 INTRO TO MATERIALS SCI & ENGRG 3 cr.
MEEM2201 INTRODUCTORY THERMODYNAMICS 3 cr.
MEEM2700 DYNAMICS 3 cr.

**Engineering Science Elective**
(select 1)

**UNDERGRADUATE CATALOG:**
(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, ENVIRONMENTAL, AND GEOSPATIAL ENGINEERING ACADEMIC ADVISOR.

**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, HU2130, HU2324, HU2501, HU2503, HU2538, HU2700, HU2820, HU2910, MUS1000, SND1000, 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.