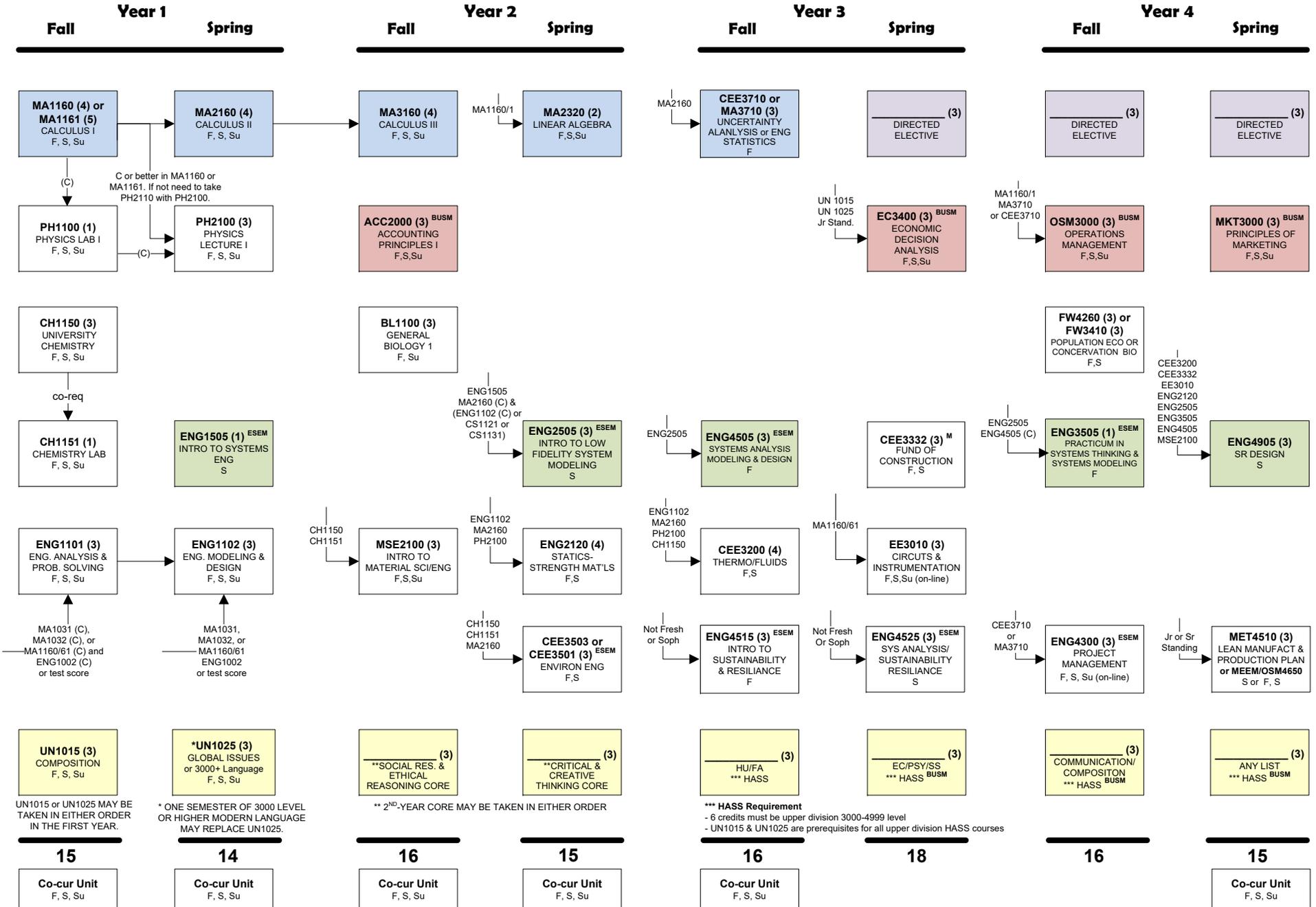
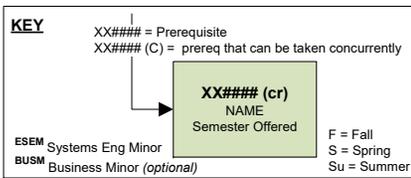


# 2023-24 BSE with Systems Engineering

Updated September 2023

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

See back of academic plan for more information on requirements for elective courses.



## BSE Systems Emphasis 2023-24 (minimum of 125 credits)

Academic questions: E-mail [efadvise@mtu.edu](mailto:efadvise@mtu.edu)

1 Senior Design **Prerequisite courses:**  
ENG1101, ENG1102, ENG2120, ENG2505, CEE3200, ENG3505, ENG4505,  
CEE3332, and EE3010.

2 General Education Requirements (24 credits + 3 PE units):

### I. Core Courses (12 credits)

\_\_\_ UN1015 Composition  
\_\_\_ UN1025 Global Issues or 3000+ Modern Language \_\_\_\_\_  
\_\_\_ Critical/Creative Think List \_\_\_\_\_  
\_\_\_ Social Resp./Ethical Reason List \_\_\_\_\_

### II. HASS Courses Requirements (12 credits)

([www.admin.mtu.edu/em/documents/HASS Distribution List.pdf](http://www.admin.mtu.edu/em/documents/HASS_Distribution_List.pdf))

- 6 credits upper level (3000- 4999)
- 3 credits from each listed below

\_\_\_ Communication/Composition \_\_\_\_\_  
\_\_\_ Humanities/Fine Arts List (HU/FA)\*\* \_\_\_\_\_  
\_\_\_ Social & Behavioral Science List (EC/PSY/SS)\*\* \_\_\_\_\_  
\_\_\_ 3 credits from any list\*\* \_\_\_\_\_

\* **EC3400** is required by the degree, and may **NOT** be counted as a Social Resp./ Ethical Reason or HASS course.

\*\* Optional Business Minor (BUSM) classes may double count here (see #5).

### III. Co-curricular activities (3 units)

In the co-curricular requirement, the three semester units will be physical education activities. These units are required for graduation, but are not included in the calculation of the GPA, nor in the overall degree-credit requirement. Note: most physical education activities will last for 7 ½ weeks or ½ semester. A student would need **six** of these ½-semester units to fulfill the 3-semester unit co-curricular requirement.

PE \_\_\_\_\_ PE \_\_\_\_\_ PE \_\_\_\_\_  
PE \_\_\_\_\_ PE \_\_\_\_\_ PE \_\_\_\_\_

3 Systems Minor Requirements (ESEM) (20 credits):

Required courses (14 credits)

\_\_\_X\_\_\_ ENG1505 (1) \_\_\_X\_\_\_ ENG2505 (3) \_\_\_X\_\_\_ ENG3505 (1)  
\_\_\_X\_\_\_ ENG4300 (3) \_\_\_X\_\_\_ ENG4505 (3) \_\_\_X\_\_\_ ENG4515 (3)

Environmental Engineering and Sustainability (6 credits)

\_\_\_X\_\_\_ (CEE3501 OR CEE3503) (3) \_\_\_X\_\_\_ CEE4525 (3)

4 Systems (*Focus*) Directed Electives (12 credits):

Select 9 credits from one of the following groups.

**Enterprise (9 credits)**

\_\_\_ ENT3950 (1) \_\_\_ ENT3960 (1) \_\_\_ ENT4950 (2) \_\_\_ ENT4960 (2)  
\_\_\_ ENT2961 (2) Teaming \_\_\_ ENT2962 (1) Communication Contexts  
\_\_\_ ENT3959 (1) \_\_\_ ENT3967 (1) \_\_\_ ENT3982 (1) Lean Six & Sigma

**ROTC Air Force (9 credits)**

\_\_\_ AF3002 (3) \_\_\_ AF4001 (3) \_\_\_ AF4002 (3)

**ROTC Army (9 credits)**

\_\_\_ AR2002 (1) \_\_\_ AR3001 (2) \_\_\_ AR3002 (2) \_\_\_ AR4001 (2)  
\_\_\_ AR4004 (2)

**Minor (9 credits):** Select 9 credits in a coherent plan of study as partial fulfillment of a university minor, with BSE program approval.

5 **Optional** Business Minor (BUSM) – Add 3-6 credits (18 credits total):

Courses counting toward Business minor:

\_\_\_X\_\_\_ ACC2000 \_\_\_X\_\_\_ EC3400 \_\_\_X\_\_\_ MKT3000 \_\_\_X\_\_\_ OSM3000

ADD 3 credits from Block III on Business Minor \_\_\_\_\_

ENG/OSM4300 cannot count for both Systems and Business minors

ADD 3 credits from any Block (*many HASS classes*) \_\_\_\_\_