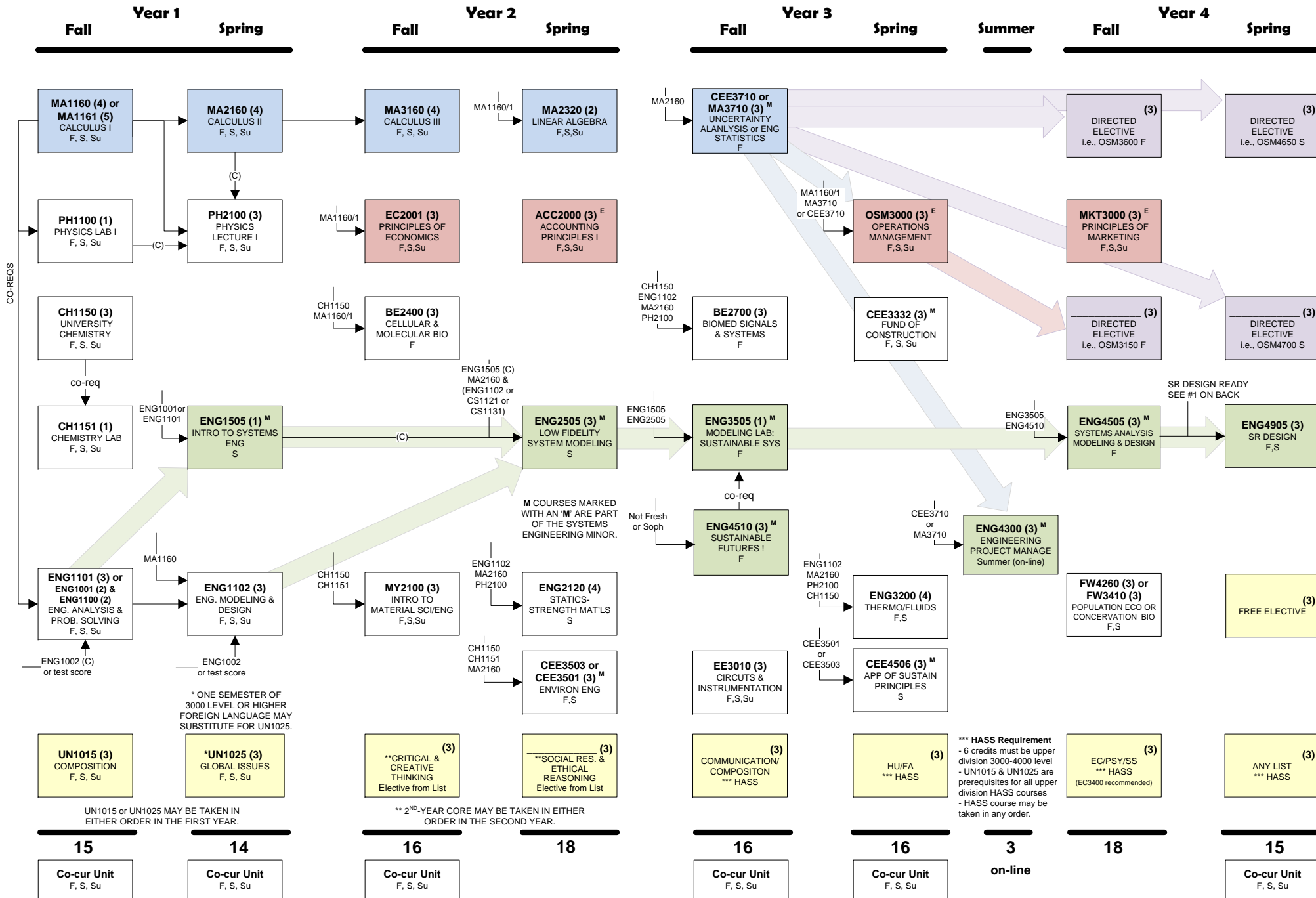
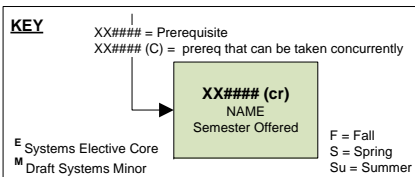


2017-18 BSE with Systems Engineering

Updated Sept 2017

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 2017-18
(minimum of 131 credits)

Academic questions: E-mail eadvise@mtu.edu

1 Senior Design Ready:

a. Senior Design Prerequisite courses:

EE3010, ENG1101, ENG1102, ENG2120, ENG3200, ENG4505, MY2100.

b. Core Competency Check test - Take and pass the test; test topics include all ENG4905 prerequisite courses except ENG4505.

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 _____

* Either **EC2001** or **EC3400** is required by the degree, if both are taken only **ONE** may be counted as a Social Resp./ Ethical Reason or HASS course. If one is taken it may **NOT** be counted as a Social Resp./ Ethical Reason or HASS course.

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 ***DRAFT* Systems Minor Requirements (20 credits) *DRAFT***

Required courses (14 credits)

- ___ ENG1505 (1) Introduction to Systems Engineering
- ___ ENG2505 (3) Low Fidelity Systems Modeling
- ___ ENG3505 (1) Modeling Laboratory for Sustainable Systems
- ___ ENG4300 (3) Engineering Project Management
- ___ ENG4505 (3) Systems Analysis, Modeling, and Design
- ___ ENG4510 (3) Sustainable Futures I

Select 6 credits from one of the following groups (6 credits)

- A. ___ CEE3501 OR CEE3503 (3) Environmental Engineering AND
 ___ CEE4506 (3) App of Sustainability Principles to Eng Practice
- B. ___ OSM3150 Intro to Supply Chain Mgmt OR OSM4700 Logistics & Transportation Mgmt (3) AND
 ___ OSM3600 (3) Procurement and Supply Management

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

Select 12 credits from one of the following groups.

Enterprise (12 credits)

- ___ ENT3950 (1) Enterprise Project Work III
- ___ ENT3960 (1) Enterprise Project Work IV
- ___ ENT4950 (2) Enterprise Project Work V Capstone
- ___ ENT4960 (2) Enterprise Project Work VI Capstone
- ___ ENT2961 (2) Teaming in the Enterprise
- ___ ENT2962 (1) Communication Contexts
- ___ ENT3984 (3) Lean Six Sigma Principles OR
 ___ ENT3959 (1) Fundamentals of Six Sigma I AND
 ___ ENT3967 (1) Design for Six Sigma AND
 ___ ENT3982 (1) Continuous Improvement Using Lean Principles

Minor (12 credits): Select 12 credits in a coherent plan of study as partial fulfillment of a university minor, with BSE program approval.

- _____
- _____
- _____
- _____