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 2018-19
(minimum of 131 credits)

Academic questions: E-mail efadvise@mtu.edu

1  Senior Design Ready:
   a. Senior Design Prerequisite courses:
      EE3010, ENG1101, ENG1102, ENG2120, ENG 2505, ENG3200, ENG4505.
   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)
   - 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. Environmental Engineering and Sustainability
      ___ CEE3501 OR CEE3503 (3) AND CEE4506 (3)
   B. Supply Chain, Logistics, Procurement, and Management
      ___ OSM3150 OR OSM4700 (3) AND OSM3600 (3)
   C. Six Sigma and Lean – select from below, planned with advisor
      ___ ENT3959 (1), ENT3967 (1), ENT3982 (1), ENT3982 (1), OSM46540 (3)

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.