### BSE Systems Emphasis 2021-22
(minimum of 125 credits)

**Academic questions:** E-mail efadvise@mtu.edu

1. **Senior Design**
   - **Prerequisite courses:**
     - ENG1101, ENG1102, ENG2120, ENG2505, ENG3200, ENG3505 (C), ENG4505 (C), 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)
     - 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_________

   **Required courses (14 credits)**
   - ___ ENG1505 (1) ___ ENG2505 (3) ___ ENG3505 (1)
   - ___ ENG4300 (3) ___ ENG4505 (3) ___ ENG4515 (3)
   - ___ (CEE3501 OR CEE3503) ___ CEE4525 (3)

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

   **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_________

   **Select 9 credits from one of the following groups.**

   **Enterprise (9 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

   **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.

   **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 can not count for both Systems and Business minor

   - ADD 3 credits from any Block (many HASS classes)