Bachelor of Science-Mechanical Engineering Enterprise Concentration  

Academic Year 2015-2016

Semester 1

UN1015 Composition (3)

CH1150 University Chemistry 1 (3) *

CH1151 University Chemistry 1 lab (1)

CH1150 University Chemistry 1 (3) *

Required Co-requisite

Semester 2

UN1025 Global Issues (3) *

UN1025 Global Issues (3) *

MA1160/1 Calculus I (4/5) *

CH1151 University Chemistry 1 lab (1)

MA1160/1 Calculus I (4/5) * Required Co-requisite

MA2160 Calculus II (4) *

PH1100 Physics I Lab (1)

PH1100 Physics I Lab (1)

MA2320 Linear Algebra (2) *

ENG1101 Engineering I (3) *

ENG1102 Engineering II (3) *

CO-CURR ½ UNIT *

15/16 Cr

18 Cr

16 Cr

17 Cr

16 Cr

17 Cr

15 Cr

14 Cr

Required Corequisite (Courses must be taken together)

Concurrent Prerequisite (A prerequisite course that may be taken concurrently)

Prerequisite (Course must be completed prior to enrollment)

6 credits must be 3000 level or higher, 3 credits maximum from HASS Restricted List*

* See notes on back

128 Total Credits

August 2015
1. **General Education Requirements:** 24 total credits. Required courses are UN 1015-Composition (3 credits), UN1025-Global Issues (3 credits), a Critical & Creative Thinking course (3 credits), a Social Responsibility & Ethical Reasoning course (3 credits), and 12 HASS credits. Approved lists are available in the ME Advising Center and are linked on the ME Advising web page.

2. **UN 1025 Global Issues Language Option:** 3 credits of 3000-level or higher modern language may be substituted directly for UN 1025. **Any students with previous language experience in Spanish, French, German, or Mandarin must take the Modern Language Online Placement Test.** Instructions are linked on the ME Advising web page.

3. **HASS (Humanities, Arts, & Social Sciences):** 12 total credits that include a minimum of 3 credits each in Communication/Composition, Humanities/Fine Arts and Social & Behavioral Science. Approved lists are available in the ME Advising Center and are linked on the ME Advising web page. **6 credits must be 3000 level or higher (does not include EC 3400).** EC 3400 is not a HASS course for ME students, but is still required for the BSME. No more than 3 credits may be used from the HASS Restricted List. All 3000 level or higher HASS courses require UN 1015 and UN 1025 as non-concurrent pre-reqs.

4. **Technical electives:** Approved list is available in the ME Advising Center and is linked on the ME Advising web page.

5. **Engineering Fundamentals:** ENG1001 (2 credits) plus ENG1100 (2 credits) is equivalent to ENG1101 (3 credits). ENG1002 or passing spatial visualization test is required for ENG1001 and ENG1101 as a concurrent pre-requisite. ENG1002 or passing the spatial visualization test is also a pre-requisite for ENG1102. MA1160/1161 is a concurrent pre-requisite for ENG1101 and MA1031 or MA1032 are concurrent pre-requisites for ENG1001. MA1160/1161 is a non-concurrent pre-requisite for ENG1102. ENG 1102 project content varies by section number.

6. **Math:** Students are placed into an initial math course based on required assessment using the ALEKS software program, or a math placement exam score (AP, IB, CLEP). MA1160 (4 credits) or MA1161 (5 credits) satisfy the Calculus I requirement. MA2320 and MA3520 are offered as full semester courses for students taking these courses in separate semesters. The Math department also teaches MA2321 as an accelerated course (equivalent to MA 2320) in the first half of a given semester and MA3521 as an accelerated course (equivalent to MA 3520) in the second half of the semester (i.e., registration must be for the same section number of both MA2321 and MA3521 in the same semester) MA2320, MA2321, or MA 2330 are all equivalent and are approved pre-requisites for MA3520 or MA3521. MA 3530 or 3560 are also equivalent to MA 3520/3521.

7. **A grade of 'C' or better in MA 2160 is required as a pre-requisite for MEEM 2110.**

8. **Enterprise:**
   a. Choose from the following one credit modules: ENT2950, ENT2960, ENT3954, ENT3955, ENT3956, ENT3958, ENT3959, ENT3961, ENT3962, ENT3963, ENT3964, ENT3966, ENT3967, ENT3969, ENT3971, ENT3972, ENT3973, ENT3974, ENT3975, ENT3976, ENT3980, ENT4951, ENT4954, ENT4955, ENT4961, and ENT4962.
   b. The minimum degree requirement of 128 credits includes use of HU3120 as HASS Communication/Composition in addition to an Enterprise Concentration requirement. HU 3120 also fulfills a portion of the upper level HASS requirement (6 HASS credits must be 3000 level or higher, does not include EC 3400).
   c. In order to enroll in ENT 4950 to begin Enterprise capstone project work, the Verification of Senior Design Objectives through Enterprise Experience form must be completed and approved by the ME-EM department. Complete instructions for this process are available in the ME Advising Center and are linked on the ME Advising web page.
   d. **All four required Enterprise project semesters, ENT3950/3960/4950/4960, must be completed with the same Enterprise team.**
   e. UN3002 (Cooperative Education): Up to 2 credits can be used as Enterprise module credits in the BSME-Enterprise curriculum.

9. **Free electives:** Any Michigan Tech course/s or approved transfer course/s that are 1000-level or above, and are not duplicated or equivalent courses.

10. **Co-curricular Activities:** Mainly physical education courses with some additions. Three units (or six half units) are required for graduation. These units will be included as earned hours and may be used to determine full-time enrollment status, but will not be included in GPA calculations. These are additional to the 128 total credits required for the BSME. Co-curricular list available in the ME Advising Center and is linked on the ME Advising web page. These units are graded pass/fail and are not included in credit hours used for calculation of any grade point averages (cumulative, engineering, or departmental).

11. **Pre-requisite** courses are noted by a plain arrow. The pre-requisite course must be successfully completed prior to taking the subsequent course. **Concurrent pre-requisites** are noted by a “C” within the arrow and may be taken at the same time, although it is not necessary to take these courses together if the pre-requisite course is completed first.

12. **Co-requisite** courses are courses that must be taken together.

13. **Transfer, Advanced Placement, or study abroad courses** are not included in credit hours used for GPA calculations. Transfer credit is awarded for Michigan Tech equivalent course work only if a grade of ‘C’ or better (2.00/4.00) or equivalent is earned at a transfer institution. Study abroad credit will be awarded by International Programs and Services based on passing a course according to equivalent international standards. Advanced Placement credit is awarded according to published AP Exam score standards.

March 2015

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

ME Advising web page: http://www.mtu.edu/mechanical/undergraduate/advising/