1. **General Education Requirements:** 12 total credits of required courses plus 12 credits of HASS distribution electives (see below). Required courses are UN 1015-Composition (3 credits), UN1025-Global Issues (3 credits), a Humanities/Fine Arts course (HUFA, 3 credits), and a Social/Behavioral Science course (SBS, 3 credits). Approved lists of HUFA and SBS courses 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 General Education Distribution:** 12 total credits, 6 credits must be 3000 level or higher (does not include EC 3400). EC 3400 is no longer a HASS course for ME students, but is still required for the BSME. The approved list of HASS courses and requirements is available in the ME Advising Center and are linked on the ME Advising web page.

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 (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. **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. UN3002 (Cooperative Education) is used as free electives in the BSME curriculum.

9. **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. These are in addition to the 128 total credits required for the BSME. Co-curricular list is 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).

10. **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.

11. **Co-requisite** courses are courses that must be taken together in the same semester.

12. **Transfer 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.

13. **Foundation Courses/Restricted Courses** – The Engineering Grade Point Average (EnGPA) is calculated based only on the below courses (shown shaded on the flow chart). An EnGPA ≥ 2.75 will automatically allow progression into restricted courses MEEM2201, MEEM2700, MEEM2150, MEEM2911 and subsequent MEEM courses. These 2000-level and all 3000-level or 4000-level MEEM courses are restricted from enrollment until the required EnGPA is met or academic advisor approval for enrollment is granted.

   - CH1150 + CH1151: 4 credits
   - ENG1101 (or ENG1001 + ENG1100): 3/4 credits
   - ENG1102: 3 credits
   - MA1160/61: 4/5 credits
   - MA2160: 4 credits
   - PH1100: 1 credit
   - PH2100: 3 credits
   - UN1015: 3 credits

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*This flow chart 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/](http://www.mtu.edu/mechanical/undergraduate/advising/)