Mechanical & Aerospace Engineering

New Student Advising Meeting October 22, 2025

MAE Academic Advisors

Ryan Towles

Mark Provoast

Sarah Sohlden

maeadvise@mtu.edu

MAE Advising Center Hours

8:00 am - 5:00 pm (Mon-Fri)

204A/204B/206 ME-EM (inside ELC, 203/205) 906.487.2564

walk-in or by phone/email

- Know/send your M number
- Do not email advisors separately.
 - Use maeadvise@mtu.edu
- Use your Michigan Tech email account.

ME Advising Web Page

https://www.mtu.edu/mechanicalaerospace/undergraduate/advising/

Lot's of FAQs, links, forms...

A good first stop for advising information, see an advisor with questions.

Agenda

- Advising
- Student Success
- Mid-Term Progress
- Registration/Scheduling
- Academic Planning

How advisors help students realize outcomes and goals

- Confirm that degree program aligns with student's academic interests and abilities, or assist with exploration of majors
- Create an educational plan that fulfills the academic requirements
- Select appropriate classes to satisfy your evolving goals and needs
- Learn the benefits of internships, co-ops, study abroad, etc.
- Explore academic options: Enterprise program, dual degrees, undergraduate research, minors, graduate study, etc.
- Identify and locate resources and services
- Interpret university and departmental requirements, policies, regulations, and procedures
- Development of decision-making skills, self-awareness, and selfdirection
- Clarification and evaluation of progress toward academic and life goals

Student Responsibilities

- Take responsibility for academic planning
- Understand degree requirements
- Follow academic procedures and policies
- Communicate with your advisor: read all advising correspondence, utilize advising every semester
- Attend advising meetings prepared, take notes
- Apply advising recommendations in order to achieve your academic plan
- Seek assistance from university resources.
- Contact your advisor promptly when you have questions or concerns
- Problem-solve to revise and achieve your academic plan

Academic Advising Checklist
Orientation Week preparing for your first semester
□ Explore Campus Resources and visit these websites
☐ Your department and advisor
☐ Undergraduate Catalog - www.mtu.edu/catalog/
☐ Dean of Students - www.mtu.edu/deanofstudents/
☐ Registrar - www.mtu.edu/registrar/
☐ Advising - www.mtu.edu/registrar/students/advising/
☐ Library - www.mtu.edu/library/ - take a library tour
☐ Wellness and Counseling - www.mtu.edu/counseling/
Year 1 transitioning and adjusting to college life
□ Attend first year advising meeting with your major advisor
□ What to do if you are unsure about your major, meet with
- General sciences/arts undeclared advisor: www.mtu.edu/sciences-arts/undergraduate/gsa/ or
- General/undecided engineering advisor: www.mtu.edu/ef/degree/advising/
□ Review major requirements
☐ Run interactive audit each semester after registration
□ Review Academic Policies and Academic Integrity - www.mtu.edu/deanofstudents/
□ Visit Career Services - www.mtu.edu/career/
□ Create a resume and attend career fairs
□ Begin to explore Pavlis Honors College, internship, co-op, research, study abroad, minors
□ Learn about campus activities and student organizations - www.involvement.mtu.edu

What you should do?

- Keep a Personal Academic File
 - Copies of documents/correspondence from academic advisors, student records, Degree Services, Transfer Services, etc.
 - Copies of transcripts
 - Flowchart for your major (showing progress marked by advisor)
 - Recommendation letters
 - Academic Plan
 - Resume/Cover Letter

Your academic advisor is here to assist you in your journey through college. Prepare for advising in advance and make your advising time together count.

Time Management

- How has the semester been going?
- How many hours a week have you been studying? At least 2-3 hour for each hour in class?
- 15 credits = ~15 class hours + 30 study hours:
 45 hours minimum per week
- Work ahead and keep track of your time!
 - Semester plan
 - Weekly plan
 - Time log/Progress Report

Time Log

- How are you spending your time?
- Keep log for two weeks. Have you tried?
- Analyze your results:
 - Are you sleeping 7-8 hours per night?
 - Trying to 'catch up' on sleep on the weekend stresses your system – try to wake up/go to sleep within the same hour each day
 - Are you getting enough exercise?
 - Are you attending <u>ALL</u> of your classes?
 - Are you studying 30-45 hours per week?
- Are you surprised by the results of this selfstudy?

Be a Professional Student

Come to campus and stay on campus.

- Treat your studies like a full-time job.
- Have purpose to your study locations and time periods.
- Go to class, every class.

Be detail-oriented

- Check your Michigan Tech email at least daily.
- Pay attention to communication:
 - Emails especially from instructors, advisors, Wahtera Center for Student Success, Dean of Students, etc.
 - Canvas VERY important for your classes.
 - Experience Checking schedule, changing classes, checking grades, current GPA, changing curricula, etc.

Campus Resources – use them!

- Faculty (office hours or by appt)
- Learning Centers (appts where possible)
- Upper class students (for some things)
- Resident assistants
- Waino Wahtera Center for Student Success
 - Academic Success Coaching/Success Courses
- Mental Health and Wellbeing (Counseling Services)
 - Telehealth and other resources (workshops, support groups, etc)
- Career Services
- Academic Advisors

Mid-semester grades

- Available October 13th after 5:00 p.m.
- Check on BanWeb
- "Satisfactory" (SA) or "Unsatisfactory" (UN)
 - SA = 'C' or better progress
 - UN = lower than 'C' progress ('CD', 'D', 'F')
- You should be able to estimate your current grades more precisely using your syllabus for each course.
- You hav been contacted by academic advisors if you receive two or more 'UN's (or equivalent)
 - Academic coaching and assistance available through the success center
 - We've also contacted you with one 'UN' in math, PH 2100, or ENG 1101/1102.

Academic Probation

You are placed on academic probation if your:

- Cumulative GPA is below 2.00, OR
- Most recent semester GPA is below 2.00, OR
- Departmental GPA is below 2.00, based on at least 16 credits.

You are removed from academic probation when your

- Cumulative GPA is 2.00 or higher, AND
- Most recent semester GPA is 2.00 or higher, AND
- Departmental GPA is 2.00 or higher.

If you are on academic probation after this semester, you must meet with an academic advisor regarding scheduling.

Be proactive about this over break!

Dropping a class

Last day to drop full fall semester classes with a 'W' is Friday, October 31st by 5:00 p.m.- No Refunds

Track B classes (classes that begin on October 13th) have different drop deadlines, see an advisor.

All drops <u>must</u> be requested by emailing <u>schedule@mtu.edu</u> (with your M-number)

Drops <u>cannot</u> be done through BanWeb.

First-year drops – must contact instructor and advisor. Don't wait until the last minute.

No late drops granted just to avoid poor grades.

Repeating Courses

- Repeating course(s) (recommended w/ 'CD' or lower):
 - Newer grade always replaces prior grade (even if newer grade is lower)
 - Transfer:
 - Credit transfers if 'C' or higher is earned
 - Prior grade is no longer factored into GPAs
 - Earned credit hours but 0 quality points & 0 GPA hours.
 - AP credits also not factored into GPAs.
 - 3 total attempts at any one course.
 - Can be financial aid implications for repeats.

Spring & Summer Registration

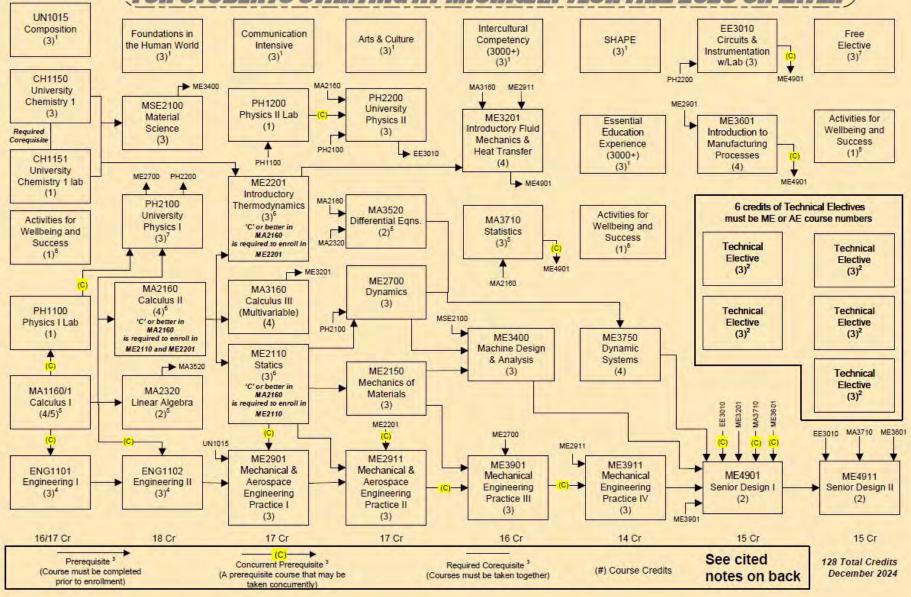
- What should I register for?
 - Use the correct flow chart
 - See an advisor to make sure you're using the right one
 - ME Beige, Salmon, or Purple
 - AE Orange or Green
 - Dated December 2024
 - Don't assume column by column
- Priority schedule
- Contacts for filled sections
- Summer semester



Bachelor of Science-Mechanical Engineering

Sample Course Plan: All required courses are offered each fall and spring semester. Students may take courses in any semester as long as prerequisites are met.

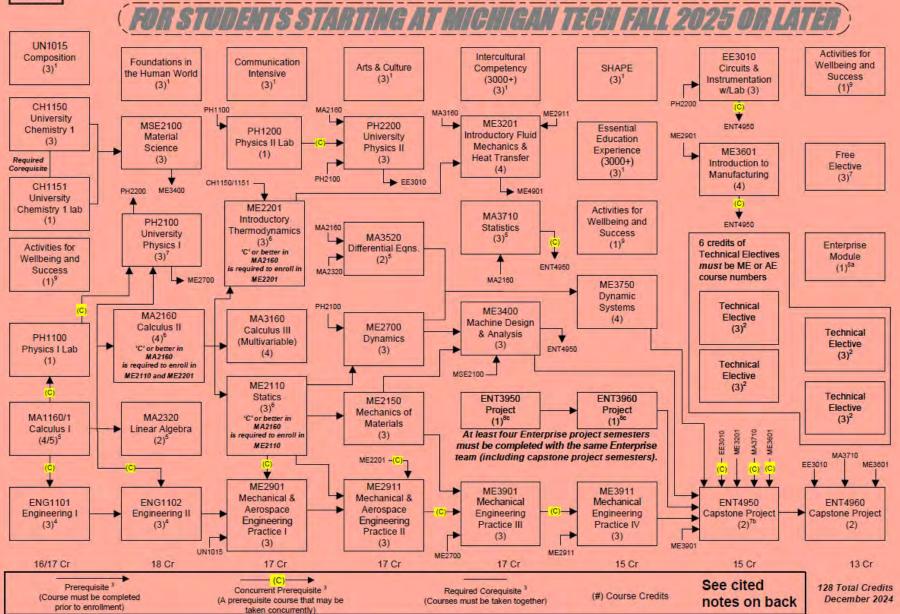
FOR STUDENTS STARTING AT MICHIGAN TECH FALL 2025 OR LATER





Bachelor of Science-Mechanical Engineering Enterprise Concentration

Sample Course Plan: All required courses are offered each fall and spring semester. Students may take courses in any semester as long as prerequisites are met.





For students with math placement below calculus.

Bachelor of Science-Mechanical Engineering

Sample Course Plan: All required courses are offered each fall and spring semester. Students may take courses in any semester as long as prerequisites are met.

UN1015 Essential Intercultural Activities for Activities for Composition Communication Education Arts & Culture SHAPE Competency Wellbeing & Wellbeing & $(3)^{1}$ Intensive Experience (3) $(3)^{1}$ (3000+)Success Success (3) (3000+) $(1)^8$ $(1)^8$ $(3)^{1}$ (3) CH1000 CH1150 MSF2100 6 credits must be PH1200 University Material Introductory ME or AE course Physics II Lab PH2200 Technical Chemistry Chemistry 1 Science 3160 2911 numbers² (1) University Elective (3)(3)(3) Physics II $(3)^{2}$ ME3201 Required If recommended ME (3)Technical Introductory Fluid Corequisite Elective ME2201 Mechanics & CH1151 2200 $(3)^2$ Introductory Heat Transfer Foundations in University Technical PH2100 the Human World hermodynamics (4) Chemistry 1 lab Elective $(3)^{1}$ University $(3)^6$ ME3750 ME4901 (1) 'C' or better in MA3520 $(3)^{2}$ Physics I Dynamic MA 2160 $(3)^{7}$ Differential Eqns. Technical Systems is required to enroll in Elective (2)° MEEM2201 (4) $(3)^2$ PH1100 → ME 3201 Technical Physics I Lab ► ME4901 PH Elective MA2160 (1) $(3)^2$ MA3160 Calculus II ME2700 MA3710 Calculus III 2160 Dynamics Statistics Used as free elective (Multivariable) 'C' or better in MA2160 $(3)^5$ (3)ME on other flowcharts is required to enroll in (4) 2901 MEEM2110 and MA1031 EE3010 MEEM2201 ► ME4901 MA1161 OR Circuits & ME2110 MA1032 Calculus I ME3601 Instrumentation Statics ME2150 ME3400 Pre-Calculus (5)⁵ Introduction to w/Lab (3) $(3)^{6}$ Mechanics of Mechanical System (4)5 Manufacturing 'C' or better in MA2320 Design & Analysis Materials MA 2160 Processes Linear Algebra (3) is required to enroll in (4) $(2)^{5}$ MEEM2110 MSE ENG 2100 ME MA3520 ENG1101 ENG1102 2201 (C) 2700. Engineering I Engineering II Activities for (3)4 (3)4 ME2911 ME3901 ME3911 ME2901 Wellbeing & Mechanical Mechanical Mechanical Mechanical ME4901 ME4911 Success Engineering Engineering Engineering Engineering Senior Design I -Senior Design II $(1)^8$ Practice I Practice II Practice III Practice IV (2)(2) (3)(3)(3)(3) 2911 3901 16 Cr 16 Cr 16 Cr 17 Cr 12 Cr 12 Cr 14 Cr 16 Cr 14 Cr

Prerequisite ³
(Course must be completed prior to enrollment)

Concurrent Prerequisite ³
(A prerequisite course that may be taken concurrently)

Required Corequisite 3 (Courses must be taken together)

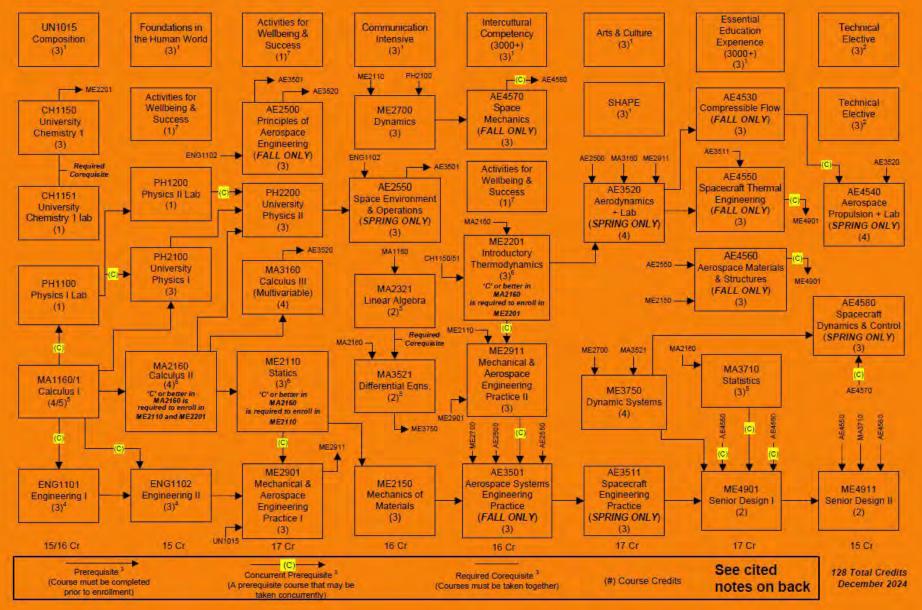
(#) Course Credits See cited notes on back

ed 133 Total Credits
on back (including CH 1000)
December 2024



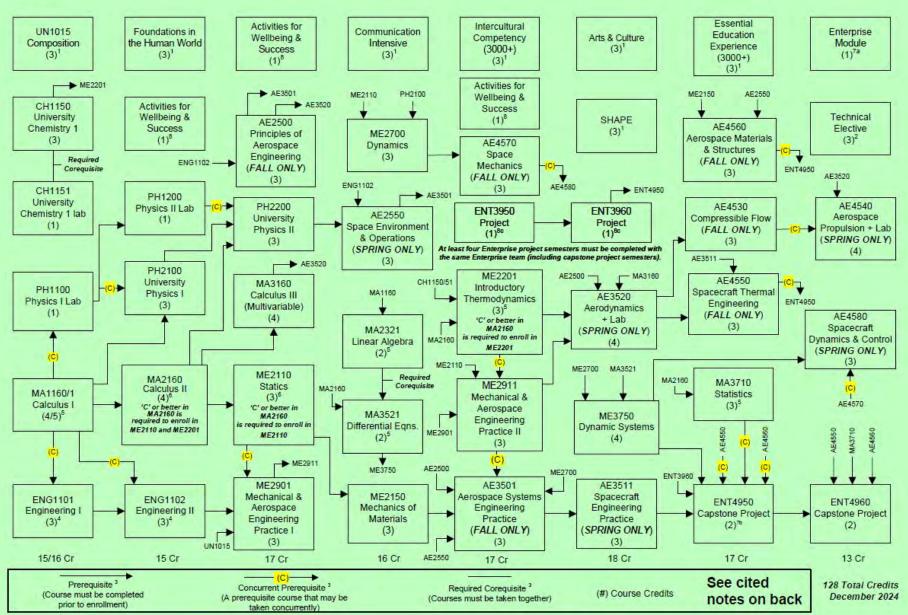
Bachelor of Science-Aerospace Engineering

Sample Course Plan.





Bachelor of Science-Aerospace Engineering Enterprise Concentration Sample Course Plan



Course Load Guidelines

- For overall semester load, number of courses is as or more important than number of credits.
- 4-5 courses (plus labs/PE), try to make one course an Essential Ed each semester
- All required BSME courses offered every semester (fall and spring), no need to rigidly follow the columns on the flow chart.
- BSAE not as flexible, fall/spring only offerings for now.
- Courses can be transferred from many other colleges/universities during summers.
- Courses can be taken here at Tech during summers (one or both tracks)
 - Summer 2026 flow chart

Now in MA 1030, CH 1000

Spring options:

```
ENG 1101 3

MA 1031 5

UN 1015, Foundations, etc (Essential Ed) 3

CH 1150/1151 4

CH1153 (optional) 1

Activity 1

TOTAL: 16-17
```

Don't overload! If a lower credit load is necessary for you, work with an advisor on the best options and possible summer transfers

Now in MA 1032 (1031), ENG 1101, CH 1000

Spring options:

ENG 1102	3
PH 1100	1
MA 1161	5
UN 1015, Foundations, etc (Essential Ed)	3
CH 1150/1 (if needed) and CH1153 (optional)	
OR MSE 2100	3 - 5
Activity	1
TOTAL:	16-18

Don't overload! If a lower credit load is necessary for you, work with an advisor on the best options and possible summer transfers

Now in MA1160(1161)/2160/3160, ENG1101, PH1100, CH 1150/1151

Spring options:

ENG 1102	3
PH 2100	3
 MA 2160/3160/2320 	2-4
MSE 2100	3
 UN 1015, Foundations, etc (Essential Ed) 	3
Activity	1
TOTAL:	15-17

Don't overload! If a lower credit load is necessary for you, work with an advisor on the best options and possible summer transfers

Calculus Lab Sections

- For MA 1161, MA 2160, or MA 3160, you must register for a lab section (L0X) along with the recitation (lecture) section (R0X).
 - These sections must match: L01 with R01, L02 with R02, etc.
- If you get a linked section error for a calculus course you are trying to add, this is the problem.
- If your calculus course doesn't add because of this, you will then get pre-req errors for any courses that depend on the calculus as a concurrent pre-req.
 - PH 1100, ENG 1102, etc.

MA 2320

- You may not want to attempt to take MA 2320 with MA 2160 or MA 3160.
- MA 2320 can be transferred from almost all other colleges/universities during Summer 2026.
- Can be taken here at Tech during Summer 2026 online in Track A.
 - But transfer may be better than online, accelerated course.

ENG 1102

- Different design project depending on section
- Topic/section number/days/times information have been or will be sent through e-mail and announced in ENG 1101 sections (advisors have copies if you missed this)

UN 1015 – Composition

- Required course to be taken in first year for all Michigan Tech students
- First year students are given first priority when scheduling this course.
- Make every effort to take this in your first year/summer.
- Can transfer from another school over the summer.
- UN 1015 is a non-concurrent pre-req for ME 2901.
- Prerequisite for many Essential Ed courses

Languages – German and Spanish

- If you have previous experience, you must take the online Modern Language Placement Test
 - If you place into an advanced course, placement credits can be earned for previous courses with a 'B' or better in first course taken (validation course).

Modern Language web page linked to ME Advising page

Language Minors Advisor

German, Spanish (International) Jenni Nance jenance@mtu.edu 339 Walker 487-2376

Spring/Summer 2026 Initial Registration October 19th – November 4th

Registration priority based on number of credits earned at the time of registration

- •Does not include currently enrolled credits, except track A courses you have passed.
- •Check Experience for current (overall) earned hours and registration time/status.
- Registration begins online at 10 pm or 11 pm
- •Web registration closed 2:00-2:30 am daily
- •Register on time to avoid unnecessary conflicts and full sections!

Plan your schedule in advance

- Can log into Experience now to look at Spring (and Summer) 2026 sections.
- Plan schedule with CRNs and have alternate plans in case you run into filled sections.
 - Only use Contacts for Filled Sections if there is no other way to complete your schedule.

Contacts for filled sections (ME Advising page FAQ #9)

- By subject
- Intended for situations where scheduling conflicts cannot be avoided unless added to an already filled section (not for time/instructor preferences).
- For MAE courses, use Google form to be added to a waiting list (email instructions).

Summer Classes at Tech

- Register for summer with spring (or later)
- Summer registration stays open online until summer semester begins
- Tracks A and B (5/4-6/19 & 6/22-8/7)
- Pace is fast plan wisely
 - Example: 3 credit class meets 6 hours/week for only 7 weeks. Covers same material as full-semester version.
 - Suggest no more than 2 courses (~6 credits) per summer track. 1 STEM and 1 gen ed
- MAE courses are offered in the summer
- Fall 2026 starts Monday, August 31st

Transfer credit (MAE Advising page FAQ #5)

- Online Listings
 - Michigan Transfer Network or Transfer Equivalency System
 - Only use these tools (save screenshot)
- Earn 'C' or better (2.00) equivalent to transfer to Tech
- May repeat courses (FAQ #6)

Don't equate your education to just what credits you must take for degree requirements.

Why an Academic Plan?

- Plan for your BSME curriculum
 - Necessary prerequisites met
 - Elective courses offered in desired semesters
 - Graduate when planned and feasible
 - Loads you can handle

Consider:

- Essential Ed choices, Activities (PE)
 and Technical Electives
- Senior design or Enterprise path
- Co-ops/internships

Why an Academic Plan?

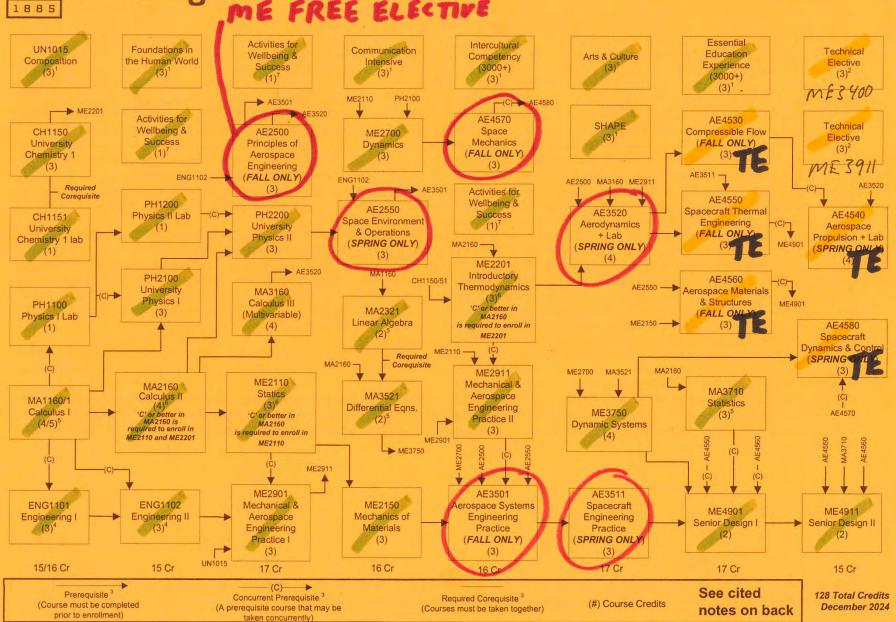
- Plan for your career
 - How will you enhance your degree to set you up for the career that you want?
- Optional:
 - Enterprise (FAQ #2, ME Advising page)
 - Minors (MAE and non-MAE, FAQ #4)
 - Second degree or double major (FAQ #4)
 - Study abroad (FAQ #11)
 - Co-op/Internship (FAQ #13)
 - Volunteer and extra-curricular activities (I-Link)
 - Honors Program (Pavlis Honors College)

1885

Michigan Tech

Bachelor of Science-Aerospace Engineering

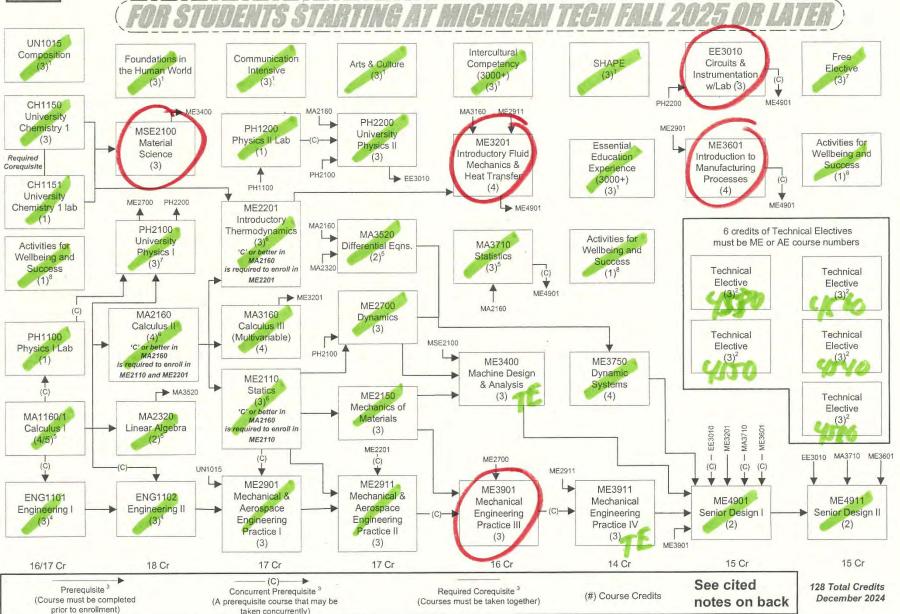
Sample Course Plan.





Bachelor of Science-Mechanical Engineering

Sample Course Plan: All required courses are offered each fall and spring semester. Students may take courses in any semester as long as prerequisites are met.



FIRSTDESTINATION

IMPACTS OF A CO-OP

		Co-op/ Median Salary / Placement Rate		
		YES		NO
DEPARTMENT	MedianSalary	Placement R	MedianSalary	Placement R
Biological Sciences	-	-	45,000	92.86%
Biomedical Engineering	60,500	85.71%	60,000	83.78%
Chemical Engineering	72,000	96.43%	63,000	89.13%
Chemistry	-	-	35,360	81.82%
Civil & Environmental Engineering	55,000	89.47%	56,000	97.2%
Cognitive & Learning Sciences	-	-	30,160	94.44%
College of Engineering	69,000	100%	65,000	100%
Computer Science	90,000	100%	63,000	89.36%
Electrical and Computer Engineering	72,000	100%	68,500	94.29%
Geological & Mining Eng & Sciences	0	100%	51,000	91.3%
Humanities	0	100%	45,800	90.91%
Interdisciplinary Certificates	75,000	100%	0	100%
Interdisciplinary Majors	-	-	0	100%
Kinesiology/Integrative Physiology	-	-	26,000	83.33%
Materials Science and Engineering	65,000	100%	65,000	96.77%
Mathematical Sciences	86,000	100%	60,000	100%
Mechanical Engrg-Engrg Mechanics	69,000	97.85%	65,000	93.68%
Physics	0	100%	38,000	90.91%
Sch Forest Resources & EnvironSci	24,960	100%	40,000	90%
School of Business and Economics	72,500	100%	46,500	90.38%
School of Technology	72,000	100%	57,900	85.29%
Social Sciences	-	-	47,436	86.67%
Visual & Performing Arts	-	-	37,500	100%



Academic Planning Materials

- Your correct flowchart
- Elective lists
 - Essential Ed
 - Technical Electives
- Schedule of classes online (Experience)
- Course descriptions online (website)
- Planning worksheets

MAE Academic Advisors

Ryan, Mark, & Sarah

906-487-2564

MAE Advising Center

204A/204B/206 (203/205) MEEM

maeadvise@mtu.edu

https://www.mtu.edu/mechanical-aerospace/undergraduate/advising/