Academic Advising
Department of
Electrical and Computer Engineering

Take one folder:

CpE – Computer Engineers (yellow)
EE – Electrical Engineers (blue)

Pull out PowerPoint handout
1. ECE Department Main Office: EERC 121  Michele Kamppinen
   - schedule advising appointments, or call 487-2550

2. ECE Learning Center: EERC 123 for help with homework

3. Undergraduate Academic Advising: EERC 131  Ms. Judy Burl
   - jmburl@mtu.edu or eceadvise@mtu.edu

Important advising webpages:

- mtu.edu/ece/undergraduate/advising
- blogs.mtu.edu/jmdonahu/ (ECE advisor BLOG-24/7 advising!)
- mtu.edu/registrar/students/registration/
Scheduling Help

Orientation week Advising Office Hours, EERC 131:

Walk In - *no appointment needed* during orientation week: (generally 8 – 4)

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<tr>
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<th>Today</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
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<tbody>
<tr>
<td></td>
<td>3:20-4:45</td>
<td>8am-4pm</td>
<td>8-11, 2-4</td>
<td>8am-10, 1-4</td>
<td>8am-Noon</td>
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E-mail jmburl@mtu.edu  
**Emails:** Include your name, M#, major

Other scheduling help avenues:

- Student Services/Registrar’s Office, 1st floor Admin Bldg
- Gen Ed or language class, go to the Library **9-NOON on Thursday**
- Email Judy jmburl@mtu.edu or eceadvise@mtu.edu

**Next week (first week of classes):**
Walk In 8 – 4 (typically)

**ECE Advising webpages:**
Flowcharts  
lists of electives  
Advising Blog – all kinds of questions  
(click around and familiarize)
Tools for Staying on Track
Following degree requirements

Catalog Term:
• based on year you began at Tech
• your catalog term is Fall 2019, coded as “201908”
• Degree requirements are defined by catalog term

Your Flowchart:
• Follows requirements for your major and catalog year.
• Sample 4-year plan

Academic Plan:
• Create your own plan as you progress and make academic and career decisions
Catalog Term is Fall 2019, coded as “201908”

“pdf” degree audit form
- Official degree requirements document
- Access on Degree Services Website under “Degree Audits”

Online Degree Audit report:
- Review your report each time you schedule or change classes
- Access in: Banweb - Student Records

Questions? Confused? Ask your academic advisor
Canvas Course:
2019 Incoming Electrical and Computer Engineering

• First year key advising information
• Quizzes are really checklist items
• Important items such as:
  • How to register
  • Become familiar with University Policies
  • How to run your Degree Audit Report
  • Etc...
• 2nd year rolls into a Canvas Course which follows the Advising Checklist on the Advising Syllabus

When should I:
Study Abroad?  Add a minor?
Take a co-op?  Create my resume?
Join Enterprise?  Join a student organization?
See an advisor?  Apply for graduation?
Programming courses

CS1121 Intro to Programming I
CS1131 Accelerated Intro to Programming

Computer Engineers:

CS1131 (5) may be taken in lieu of both CS1121 (3) and CS1122(3)

CS1131 is offered in Fall only. Covers CS1121 + CS1122; add 1 cr. to Technical Electives.

You will be ready for sophomore CS courses after CS1122 or CS1131

CS Knowledge Assessment: online Canvas Survey/Assessment
  • You need to take this in order to be placed in CS1121/1131
  • http://www.mtu.edu/cs/undergraduate/placement/
  • To take the assessment, email Professor Leo Ureel at ureel@mtu.edu

Electrical Engineers: (CS1111 is a required C programming course, and planned in semester 3)

  • If considering a CS minor or CpE or CS major, take CS1121 or CS1131.
  • Take the CS Knowledge Assessment. email Professor Leo Ureel at ureel@mtu.edu
  • CS1121 or CS1131 may substitute for CS1111.
  • If interested in programming, CS1121 & CS1122(or CS1131) and CS1142 are recommended.

The Computer Science Department is located on 2nd floor Rekhi Hall, room 221.

CS Advisor: Denise Landsberg
CS1121 / CS1131 (CpE’s) and CS1111 (EE’s): how to succeed

Go to all your lectures & labs and pay attention.

Start homework right away – DO NOT PROCRASTINATE !!

If you don’t understand something, get help right away.
- Instructor office hours
- CS Learning Center  Rekhi 114

Do not copy code. Do your own work.

Be able to develop your own logic steps and write your own code.
If you take:                                                                 May count as:

1) **CH1150/51** University Chemistry I .......................... 2\textsuperscript{nd} Discipline Math/Science Elective
2) **ENG1102** Engineering Modeling & Design .... CpE Technical Elective (if taken in first year sequence)
3) **MA3160** Multivariable Calculus.............................. Math/Science Elective

Reasons to take these courses:
- in case you change to another engineering major in the future
- required if you pursue a double-major in Electrical Engineering

These courses fit into the CpE degree as listed above.
MA1030 – College Algebra I – take CH1000. Placement test required to switch into University Chemistry, CH1150/51.

MA1032/1031 – Pre-calculus and Algebra II students

- Take CH1000 – Introductory Chemistry
  - If you did not take H.S. chemistry; or if you earned less than B grades in H.S. algebra or chemistry
- Take CH1150/1151/1153 – University Chemistry
  - B or better in H.S. Chemistry and Algebra. Taking CH1153 is strongly recommended

MA1160 or higher:

- Take CH1100 & CH1151. CH1153 is recommended with University Chemistry. (recitation)
- Take CH1000 if you never took chemistry
- May switch to CH1000 if desired. May take the Chemistry Placement Test to help you decide.

CH1000 does not count toward your major chemistry requirement. Take it if you plan to take CH1150/51/53 and you are not well-prepared for University Chemistry. CH1000 is “free elective” credits.

CH1153 is highly recommended with CH1150/1151. Add it on Wednesday.

Go to Student Services Center to switch your chemistry course, **today or Tuesday**.
Admin Building 1st floor or email schedule@mtu.edu

Chemistry advisor: Jeremy Brown, Chem-Sci Building room 206A
Honors Physics option

- Honors Physics I: PH1160 and PH1161
  Mechanics (for Physics majors)
- PH1160 and PH1161
- Fall semesters only  Lecture at 12:05pm MTWF
- Calculus I (or beyond)
- see Instructor: Dr. Weidman, Fisher 106. weidman@mtu.edu

May replace: PH1100(lab) and PH2100
AP Calculus Score: 3

If you scored 3 on the AP Calculus Exam:

Must earn a grade of C or higher in your placement course:

MA2160  (Calculus AB exam)
May enroll in MA 2160, credit for MA 1160 awarded upon earning a grade of "C" or higher in MA 2160

MA3160  (Calculus BC exam)
May enroll in MA 3160, credit for MA 1160 and MA 2160 (8 credits) awarded upon earning a grade of "C" or higher in MA 3160

To start in earlier Calculus instead of your placement course,

* Go to Student Services Center to switch your calculus course, this week.  8am – 5pm  
  Admin Building, or email schedule@mtu.edu

Questions: First-year Math advisor: Ann Humes, Fisher 205B, amhumes@mtu.edu

What if CD or D? Must take prior courses or repeat placement course with C or higher the 2nd time.
Success in Calculus leads to Success in Physics

- **PH2110 – University Physics 1 Workshop**
  - Integrated with PH2100 – University Physics 1 lecture
  - 2 credit active learning, mastery based. No homework.

  - Take in PH2110 and PH2100 in same semester

  - Students with grade C in Calc I – strongly encouraged to take PH2110
  - Students with CD or D – required to take PH2110 with PH2100
Linear Algebra and Differential Equations

**Accelerated** - ½ semester each: MA2321 and MA3521
- taken sequentially in same semester.
- must pass MA2321 to continue in MA3521
- may be difficult resulting in lower grades
- Take minimum of 14 credits (or risk Financial Aid)
- Recommended if did well in Calculus I and II (B or higher)

**Normal Pace** - 1 semester each: MA2320 and MA3520
- Takes two semesters; Same courses at normal pace
- If you are planning more than 8 semesters
- If calculus II was difficult
- If you are ‘ahead’ in math
- Increase chances of earning higher grades

EE2112 - Circuits II is gateway to 3rd year courses

Pre-requisite chain: 7 semesters:

MA1160 → MA2160 → MA2321/MA3521 → EE2112 → EE3131 → Sr. Design 1 → Senior Design 2

8 semesters with normal pace LinAlg/DifEq
1. **Core**: 4 courses:

   * UN1015  Composition (3)
   * UN1025  Global Issues (3) or 3000+ level language course
   Critical & Creative Thinking course (3)
   Social & Ethical Reasoning course (3)

   *It is important to complete UN1015 and UN1025 in first year:*
     - low priority registration in 2nd year and beyond
     - unable to schedule upper level HASS/Gen Ed courses until they are both complete

2. **HASS**: 4 courses from elective lists as follows:

   *At least 6 credits of HASS must be upper level (3000+)*
   • Communication & Composition HASS list (3) choose one course
   • Humanities & Fine Arts list (3) choose one course (HU/FA) HASS list
   • Social & Behavioral Science list (3) choose one course (EC/PSY/SS) HASS list
   • any above HASS list or the restricted HASS list (3) choose one course

3. **3 units of co-curricular activities**

http://www.mtu.edu/registrar/faculty-staff/advisors/gen-ed/
Interested in Modern Language courses?

Choose: UN1025, Global Issues or Language course 3000+

1. A 3000-4999 level language course may replace UN1025, Global Issues
   • may postpone if need lower course(s) level first
   • up to nine language credits may count in general education
     1 level 3000+ (3cr)  1 HASS-HU/FA (3cr.)  1 HASS-any (3cr.)

2. Take Language Placement test online.

3. Placement credits awarded for ‘B’ grade or higher, in your language placement course.

4. Language Minors: French, German, Spanish (18 – 21 credits)

5. Language minor advisor: Dr. Maria Bergstrom, Walker 316, mjbergst@mtu.edu

6. Language Placement questions: TODAY! 3:30 – 5:30pm – Walker 120 A
Part of Term - Track A and Track B

Part of Term ‘1’ = full semester course
    Sep 3 – Dec 13 (finals week is Dec 16 – Dec 20)
Part of Term ‘A’ = Track A = 1st 7 weeks
    Sep 3 - Oct 18
Part of Term ‘B’ = Track B = 2nd 7 weeks
    Oct 21 – Dec 13

- Many PE or co-curricular courses are offered in either Track A or Track B.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Instructor</th>
<th>Title</th>
<th>Credits</th>
<th>Schedule</th>
<th>Room</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>81062</td>
<td>Wood</td>
<td>Intermediate Billiards</td>
<td>0.500</td>
<td>TR 10:05 am-10:55</td>
<td>08 0001</td>
<td>$26.00</td>
</tr>
<tr>
<td>84434</td>
<td>Peterson</td>
<td>Paintball</td>
<td>0.500</td>
<td>T 02:05 pm-03:55</td>
<td>09 03-018</td>
<td>$60.00</td>
</tr>
<tr>
<td>84435</td>
<td>Purdy</td>
<td>Paintball</td>
<td>0.500</td>
<td>T 04:05 pm-05:55</td>
<td>09 03-018</td>
<td>$60.00</td>
</tr>
<tr>
<td>83643</td>
<td>Kowalewsky</td>
<td>Social Dance II</td>
<td>0.500</td>
<td>TR 02:05 pm-02:55</td>
<td>10 0207</td>
<td>$19.00</td>
</tr>
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- Pay attention to the dates on the schedule of classes.
- Don’t forget to start attending a track B course the week of October 21st.
Finalize your schedule

• Registration will be open *Wednesday 8 am – Thursday at Noon*
  • Team Meeting at 11am – bring these slides

• Some changes may be made at your Online Resources Team Meeting *Weds AM at 10 or 11*

• 12 credits is minimum; 18 credits is the maximum

• Help scheduling General Education classes: *Thursday 9-Noon 242 Library*
Waino Wahtera Center for Student Success
Admin 130 487-3558

• UN1000 – ExSEL Program – ‘Frameworks for Success’
  • section can be switched if needed [go to Admin bldg.-Student Services]
  • cannot be dropped
  • See Jeanne Watts if you wish to join ExSEL or email: exsel@mtu.edu

• UN1010 – Themed Community – ‘Creating your Success’
  • cannot be dropped or switched

UN course questions:  Ms. Jeanne Watts, 130 Admin
  exsel@mtu.edu  487-3558

• HON1150 - Pavlis Honors College – ‘Creating Your Path’

Pavlis program questions:  722 M&M Bldg.  www.mtu.edu/honors

Success Coaching:
487-3558
130 Admin Bldg
**Engineering Cohort Schedule**

Go to the **Student Services Center, Admin Bldg.** if you NEED to change a cohort course. **Do not drop or change a cohort course !!!!!!!!**

These courses are taken together for **Fall semester:**

- ENG1001
  - MA1031 or MA1032
  - CH1000 (EE’s)

- ENG1101
  - MA1160 or MA1161
  - CH1151 or PH1100

- ENG1101
  - MA2160
  - CH1151 or PH1100

• If a cohort course blocks another course you need, go to Student Services
• To switch to the correct chemistry course for you, go to Student Services

• Spatial Visualization test: TODAY at 3:30pm - 5:30 – check o-team schedule
  Spatial Visualization course: ENG1002, one credit-supplements ENG1100/1101

• Math Placement: Students w/o ALEKS/AP/TR, or students who wish to place into a higher level math course, take the [ALEKS math assessment](https://banweb.mtu.edu) online: (in Banweb?)

  see Ms Ann Humes for ALEKS questions. Fisher room 205A, mathplacement@mtu.edu
Need more credits?

What classes could you add?

• CH1000 (Introductory) or CH1150/51/53 (University Chemistry)
• CH1153 – 1 cr. recitation to help with CH1150/1151
• UN1025 or UN1015
• Critical and Creative Thinking Core course
• Social responsibility and Ethical Reasoning Core course
• HASS lower level elective course *(pay attention to which list)*
• PE xxxx  0.5 credit, Part of Term A and/or B  
  • Try PE1010 – “Active Michigan Tech” Opening spots for freshmen on Wednesday.

Registration HELP for finding a gen ed course: Thursday, 9am – Noon, Library 242
Too many credits?

See Judy if you want less credits in your first semester.

What class could you postpone?

CH1000, CH1150/51/53, CS1121, or a HASS list course

Do not postpone chemistry if considering Biomedical Applications concentration (EE’s)

You might want a ‘light’ semester to start with. (12 – 14)

It might be best to take less credits and earn higher grades.

Taking a high number of credits can lead to stressful loads and risking failure of a class. You won’t know your ideal credit load until you’ve completed a semester or two.

Do NOT to postpone UN1015 and UN1025. Take in first year.
Course Drop Dates check all at Registrar’s Web Site

Last Day to Drop “no grade” recorded:

- Full Term Course – **Friday, September 20**
- Term A course – Wednesday, September 11
- Term B course – Wednesday, October 30

Last Day to Drop – grade of “W” shows on transcript

- Full Term Course - **Friday, November 8 - WEEK 10**
- Term A course – Friday October 4
- Term B course - Friday, November 22

A “W” grade does not affect the GPA.

Dean of Students: 906-487-2212 (special circumstances)

**Fall 2019**

**DROP**

to earn: to receive as return for effort. source: https://www.merriam-webster.com/dictionary/earn
Starting the first week of classes, First-year student permission to Drop/Add

Instructor Permission:
Special Approval
- including enterprise
Class Restriction
Pre-requisite waiver
Major Restriction
Capacity (full section)
Time conflict

Full section: *see the department which offers course*

Bring *completed form* with appropriate signatures to the Student Services Center in the Admin Building.
Blue Marble Security – BMSE (L02)
Advisor: Dr. Glen Archer, EERC 629 gearcher@mtu.edu

Wireless Communication – WCE (L03)
Advisor: Mr. Kit Cischke, EERC 520 cmcischk@mtu.edu

Robotic Systems – RSE (L15)
Advisor: Dr. Jeremy Bos, EERC 623 jpbos@mtu.edu

First-year enterprise course number: ENT1960, 1 credit for Spring 2019, or take ENT1960 with Calc II if you are currently a precalculus student.

To Join: Meet with enterprise advisor, use waiver form, register in course that pertains to semester and section number.
• Study Abroad – many countries
  722 M & M Building
  Tuesdays at 11am  Thursdays at 2pm
Study Abroad Fair – Sept. 19th 10am-2pm
  under the Tents near EERC

Career Fairs:
  Sept 25 and  Feb. 19

Industry Days:
  Check Career  Services website

• Career Center offers:  220 Admin Building
  • Career and interest explorations  Career Cruising, FutureU
  • Co-op experience  - suggested after Circuits I or II or later
  • Career related workshops and advising; Handshake job search
Degree Services website has program requirements:

- **Minor**
  - Remote Sensing, Nanotechnology, Mathematics, Data Acquisition and Industrial Control, Aerospace Engineering, Electronic Materials, Music, Art, Physics, Languages, etc...

- **Double major examples** - if takes less than 32 credits to complete 2nd major.
  - CpE and EE – approx. 19 credits additional
  - CpE and CS – approx. 25 credits additional
  - EEEB and EBE
  - others

- **Additional Baccalaureate Degree (“2nd degree)**
  - EE and Mechanical Engineering
  - If it takes 32 or more additional credits to complete a 2nd major.
Student Organizations

- Join IEEE to be connected to the largest professional society in the world and have access to the Student Projects Lab, room 809
- Join SPIE to be more informed and involved in Photonics activities and research
- NSBE – National Society of Black Engineers
- SWE – Society of Women Engineers
- Eta Kappa Nu (HKN) – IEEE Honors Society - you may be invited to join in Sophomore, Junior or Senior year for earning a high cumulative GPA and are in the top 10, 25 or 33% of your class.

More to Think About

Attend K-Day
for information on student orgs

Electrical & Computer Engineering at Michigan Tech
You are responsible for your own

- Class attendance and homework:
  - Read, know and keep each Course Syllabus.
  - Go to all your lectures & labs and pay attention. Take notes.
  - Attendance is the root of most academic problems (you don’t want to go there)

- Read mtu.edu emails daily – especially from instructors, advisors, and the Dean of Students Office. Use Canvas messages.

- Make plenty of time for studying and homework. 30-45 hrs
  - Start homework early – DO NOT PROCRASTINATE !!

- Do your own work. Do not copy. Practice, practice, practice!
  - Be able to solve math problems & develop your own code.
  - Practice math problems until you can do them in your sleep.

- If you don’t understand something, ASK and get help right away.
  - Instructor office hours - Learning Centers - NOT from friends

- Use the Learning Centers – weekly appointments or walk-in hours.
  - Sign up early for Math/Chem Learning Center weekly coaching.

- First year Mid-Term grades – view online evenings of: fall- Oct 21 & spring- Mar 2
  - Satisfactory (S) or unsatisfactory (UN)

- If something happens to you, contact the Dean of Students 487-2212.
What are your priorities?

1. Class attendance
2. Homework
3. Review class material
4. Studying for exams/quizzes
5. Learning Center Getting help

GPA: □□□□

Take the reigns; you are in control of your own success
All 3 GPA’s must be at least 2.0 to remain in Good Academic Standing.

1. Cumulative GPA
2. Departmental GPA (min. 16 cr complete)
   - EE majors: uses EE courses
   - CpE majors: uses EE and CS courses
3. Term GPA (most recent semester GPA)

   - **3.5+** → Graduate with honors
   - **3.0+** → Get job interviews 😊
   - Below **3.0** → May have difficulty finding co-ops/jobs
   - **2.75+** → Eligible for Study Abroad programs
   - Below **2.0** → **Probation** 😞

2 consecutive semesters on academic probation leads to suspension.

*Suspension can be appealed – implement changes to improve.*

Midterm grades available online Monday, Oct 21st, 5pm
Meet with your academic advisor if you ever have to repeat a course.

**Course Repeat Rules:**

1. Courses with CD or less may be repeated.
2. Most recent grade counts.
3. No more than three attempts per course.
4. Special permission is required for 3rd and final attempt.

**Advice:**

1. Do not skimp on a class you are repeating. Go to all your classes and re-do all the homework from the start.
2. Meet with your advisor if you’d like to raise your GPA and/or are considering repeating a course.
If something happens to you, such as a medical or family emergency and it causes you to miss classes, contact the Dean Of Students Office as soon as possible.

If you have a learning Disability and need accommodations, contact Christy Oslund in the Dean of Students Office.

Counseling Services 487-2538
3rd Floor of the Admin Building

If you become overwhelmed, stressed out and stop going to classes or doing homework, we have counseling services to help students deal with stresses that interfere with college work and the enjoyment of life in general.
• Where are official degree audits/requirements? Degree Services website
  In Banweb: Online degree Audit report
• What tool will you use to track degree progress? Online Degree Audit
• If you repeat a course, which grade counts, the highest or the most recent? Most recent (even if it’s lower) Attempt limit 3
• If you have a crisis that causes you to miss classes, who do you contact? Dean of Students Office, 487-2212
• Can you take any Humanities course for General Education? No! Choose courses from HASS lists
• Can you take a course if you failed it’s pre-req? NO!
• What is the minimum GPA needed to remain in Good Academic Standing? Cumulative, Semester and Departmental w/16+ cr: 2.0
• Which courses are used in Departmental GPA? EExxx or EE & CS
• What is minimum GPA to graduate with honors? 3.5
• How do I verify that a course will count? Online Degree Audit Report
  When? Before classes Begin or anytime!
- Be careful if switching sections!
  - lose your cohort group
  - lose your seat.
  - MA, ENG, CH, PH

- First-year Fall Advising Meetings (required)

  EE’s - individual meeting w/ Judy
  CpE’s – group or individual meeting tbd

  ** Bring your advising folder to your academic advising meetings.

- Orientation advising handouts are available in Canvas & on the ECE Advising webpage
Include in your e-mails:

First and Last Name, major, and M-number or 1st few digits of that.

- ASK your advisor, not your friends: EERC 131

Judy: jmburl@mtu.edu or eceadvise@mtu.edu

Important advising emails come from me at eceadvise@mtu.edu.

To schedule an appointment,
Call 487-2550 or go to EERC 121 (Main Office)

Questions? Stop by EERC 131 or e-mail me.