

Academic Advising Syllabus

Advising Syllabus Overview

From Declaration Day to graduation day, this document is meant to be a hands-on guide to your advising process and a reference tool to help you navigate your academic and professional goals. We have outlined expectations for the advising relationship between you, the student, your staff advisor, and faculty. Your advisors are here to serve as your resource for navigating through your experience at Carnegie Mellon University. This document is available online on the ECE Academic Guide webpage under “Resources for Creating a Course Schedule”.

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Student Learning Outcomes

As a result of your active advising relationship, you will...

- Understand the advising resources in your department
 - Know how and when to contact your academic advisor
 - Recognize what to expect from your academic advisor
 - Recognize what is expected of you in a positive advising relationship
 - Identify when to utilize various types of advising
- Identify where to find department, college, university policies, and laws (i.e. FERPA) that impact your academic career
- Find campus and community resources that support student success
- Utilize resources for building a course schedule, such as (but not limited to):
 - [Academic audit and degree planner](#)
 - [University course catalog](#)
 - [Schedule of classes search tool](#)
 - [ECE Department website](#)
 - [Faculty Course Evaluations](#)
- Apply your curriculum requirements and other academic options (such as study abroad, research, additional major/minor, co-op, IMB, etc.) to a four-year plan
- Begin to facilitate planning, goal-setting, and decision making regarding your academic schedule and post-graduation destination

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How is Academic Advising Divided in ECE?

ECE students have two different advisors at all times. Once you are admitted into ECE at the end of your first year, you will be assigned a staff advisor and a faculty advisor.

- Your **academic advisor** is a full time staff member that is here to assist you with curriculum questions, course questions, study abroad opportunities, or anything else pertaining to your academics. Your ECE academic advisor is with you through the duration of your academic career in the department. There are two academic advisors within ECE:
 - Rachel Amos advises undergraduate ECE students with last names A-Lh.
 - Vickie Woodhead advises undergraduate ECE students with last names Li-Z.
- Your **faculty advisor** is an ECE faculty member that is assigned to you for the duration of your sophomore year (in addition to your academic advisor). Your faculty advisor is a person that can help you decide what areas within ECE are related to your interests, help you with choosing courses, and help you plan a course timeline within ECE. If you are not sure who your faculty advisor is, please contact your academic advisor for assistance.
- Your **faculty mentor** is an ECE faculty member that is assigned to you in your junior year (in addition to your academic advisor) based on your interest areas in ECE that you keep for the remainder of your time in ECE. Your faculty mentor is there for you to discuss course selection, ask technical questions, discuss research opportunities or career aspirations, ask questions about graduate school, or discuss community outreach opportunities.

Valuable Resources for ECE Students

ECE has a lot of staff and connections on campus available to help you during your time at CMU! Don't hesitate to visit your staff advisor for advice on important people to know. We've included just a short list of some important contacts for you here.

- **Student Orgs & Activities Advisor:** Bari Morchow, bmorchow@andrew.cmu.edu
- **ECE Students Affairs Liaison:** If you live on campus, this will be your Housefellow. If you live off campus, your Student Affairs liaison is M Shernell Smith, mssmith@andrew.cmu.edu
- **ECE Career Services Liaison:** Ray Mizgorski, raymizgo@andrew.cmu.edu
- **ECE HUB Liaison:** Melissa Skasik, skasik@andrew.cmu.edu
- For advising questions on the [General Education Requirements](#):
 - Please contact [Kurt Larsen](#) if your last name begins with A-K.
 - Please contact [Treci Bonime](#) if your last name begins with L-S.
 - Please contact [Annette Jacobson](#) if your last name begins with T-W.
 - Please contact [Nisha Shukla](#) if your last name begins with X-Z.

Other Recommended Success Resources

CMU Course Catalog coursecatalog.web.cmu.edu/	Career and Professional Development Center www.cmu.edu/career/
ECE Academic Guide webpage bit.ly/ECEAreas	Academic Development www.cmu.edu/acadev/
Stellic Academic Audit and Degree Planner academicaudit.andrew.cmu.edu	Office of International Education www.cmu.edu/oie/
HUB Schedule of Classes Search Tool bit.ly/HUBSOC	Counseling and Psychological Services www.cmu.edu/counseling/
CMU Academic Calendar www.cmu.edu/hub/calendar/index.html	Alumni Advisor Network https://cmu.firsthand.co/
Disability Resources www.cmu.edu/disability-resources/	Schedule a meeting with your advisor bit.ly/ECEAdvisors

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The following boxes present important milestones for each year of your academic career that we recommend you be familiar with.

Create a 4 year plan

- Use the [CMU Course Catalog](#) to peruse course offerings, degree requirements, additional majors and minors
- Use your [Academic Audit](#) to see your curriculum requirements
- Use the [ECE department website](#) or [CMU course catalog](#) for information on department policies
- Meet with your advisor for assistance with resources and help with crafting your plan

Prepare for advising appointments

- Use the [CMU Academic Calendar](#) to be familiar with academic dates and deadlines
- Refer to our [chart on page 4](#) to determine the type of advising appointment that you need
- If your need requires a scheduled appointment, [schedule a meeting ahead of time](#)
- Be prepared to talk about your life both in and outside of your classes to the degree you are comfortable

Connect your educational plan to your career goals

- Utilize your advisors to tailor your course selection to your career goals
- Explore additional majors and minors related to your interests
- Use the [Career and Professional Development Center](#) for assistance with career exploration
- Use the [Alumni Advisor Network](#) for advice on career and coursework
- Contact your faculty advisor throughout the year

Sophomore year

Plan for a summer internship or research

- Utilize the [CPDC](#) for resume and interview advice
- Investigate and attend [career fairs](#) such as the TOC or SPARK
- Use [Handshake](#) to search for internships
- Use [online resources](#) to search for available research opportunities or research faculty interests
- Utilize the [Undergraduate Research Office](#) to find available funding or research opportunities

Build and refine connections with faculty

- Research faculty interests and find a research opportunity (mandatory if you are pursuing a PhD option)
- Visit office hours regularly
- Get to know your faculty mentor
- Apply to TA a class that you enjoyed and did well in

Make plans for graduate school (if applicable)

- Know the difference between various types of graduate degrees
- Ask your advisor about the integrated MS options
- Prepare to take the GRE (or other entrance exams)
- Think about who you would ask for letters of recommendation

Junior year

Graduate and prepare for your future

- Triple check your graduation requirements with your advisor and academic audit
- Solidify your post-graduation plans for work or graduate school
- Participate in commencement (optional but recommended)
- Know your options for participating in the [alumni network](#)


Senior year

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Do you need to schedule an advising appointment?

Your time, like ours, is valuable. If you just need our signature or to drop off a form, there's no need to schedule an appointment. On the other hand, walk-in hours are not an appropriate time to discuss your academic plan and study abroad plans cannot be mapped out over email.

Appointment	Walk-in	Email*
Dedicated time to meet used for: <ul style="list-style-type: none"> • Academic difficulty • Personal difficulty • Academic plan and goals • IMB planning • Change of major • Study abroad • Financial Aid Academic Improvement Plan • Leave of Absence • Transferring or withdrawing • Questions about or requesting 	First-come, first-served used for: <ul style="list-style-type: none"> • Form signature • Policy clarification • Check-in or follow up from a previous meeting • Registration check 	Used sparingly for: <ul style="list-style-type: none"> • Clarifying what was discussed at a previous meeting • Resource referral • Graduation check ** Please allow 24 hours for a reply.



How to schedule a meeting with your Academic Advisor

Step 1: Visit bit.ly/ECEAdvisors or click on the link in our email signature.

Step 2: Select your appropriate advisor from the list.

Step 3: Select your desired appointment time and confirm.

Why should I meet with my academic advisor?

As an academic advisor, our role is to ensure that you are successful in your time at Carnegie Mellon University. Success looks different for every student, and in order for us to help you achieve your own definition of success, it's important for us to understand what your priorities and goals are. The more we know about you and your own goals, the more we can help you to craft your journey here at CMU. While you can minimally use your advisor to make sure you are staying on track for a timely graduation, we are also here to help you utilize your resources as CMU in the most efficient and helpful ways possible. The list in the chart above is just a small number of things that we are here to help you with.

While we don't wish for roadblocks or obstacles on your academic journey, most students take 8 semesters to graduate with a BS in ECE. Over the course of this time, it's possible that you will encounter difficulties or challenges. We are here not only to celebrate your successes, but also to help you in the times that life is not as easy for you. If you're struggling with any kind of personal difficulties—whether it is illness, personal challenges, unexpected life events—please let your advisor know. It can be complicated and hard to navigate being a student on top of these kinds of circumstances, and we are happy to help you in any way that we can.

5 Areas of ECE:

Device Sciences and Nanofabrication:

Solid State Physics, Semiconductors, Magnetics, Electromagnetic Fields and Waves, Optics, etc.

Signals and Systems:

Digital Signal Processing, Communication Systems, Control Systems, Power Systems, etc.

Circuits:

Analog and Digital Circuits, Integrated Circuit Design, etc.

Hardware Systems:

Logic Design, Computer Architecture, etc.

Software Systems:

Programming, Embedded Systems, Data Structures, Compilers, Networks, Operating Systems, etc.

Visit the ECE webpage at <http://bit.ly/ECEAcademicGuide> for detailed information about ECE courses and requirements.

Important Notes:

- A full time courseload is 36 units.
- The maximum number of units per semester is 54 (55 for your fall sophomore year for 18-200).
- ECE students need to have a QPA of 3.5 in order to overload. Please see your advisor with questions about overloading.
- Beginning with the class of 2020, a C or better is needed in all math courses (except math/sci electives).
- 18-200 is a mini only offered in the fall semester. It is strongly recommended you take it during your sophomore year.
- Three semesters of Experiential Learning are required in order to graduate.
- Rachel Amos and Vickie Woodhead are the ECE Undergraduate Academic Staff Advisors! Please don't hesitate to reach out if you have any questions. <http://bit.ly/ECEAdvisors>
- In addition to a staff advisor:
 - * Sophomores receive a faculty advisor.
 - * Juniors and seniors receive a faculty mentor.

For BS in Electrical and Computer Engineering, 2017
Course Catalog Year: Total 379 Units

CIT General Education Requirements: 75 units

Computing @ Carnegie Mellon.....	3 units
Interpretation & Argument	9 units
Innovation & Internationalization	9 units
People, Places & Cultures.....	9 units
Social Analysis & Decision Making	9 units
Writing & Expression.....	9 units
General Education Electives x 3.....	27 units*
*Only 18 units of AP credit may count for this requirement	
Experiential Learning x 3	0 units

See <http://bit.ly/CITGenEds> for in-depth information about CIT general education requirements.

Math/Science Requirements: 71 units

Freshman Math I	10 units
Freshman Math II	10 units
Physics I	12 units
Physics II	12 units
Math/Science Electives x 2	18 units
Probability & Statistics	9 units

General Technical Requirements: 56 units

Introductory Engineering Elective	12 units
Mathematical Foundations of EE: 18-202	12 units
Concepts of Mathematics: 21-127	10 units
Fundamentals of Programming & CS: 15-112	12 units
Principles of Imperative Computation: 15-122	10 units

See <http://bit.ly/ECETechReq> for in-depth information about ECE math/science/technical requirements.

ECE Course Requirements: 121 units

Introduction to ECE: 18-100	12 units
ECE Sophomore Seminar: 18-200	1 unit
Electronic Materials & Analog Circuits: 18-220	12 units
Signals & Systems: 18-290	12 units
Introduction to Computer Systems: 18-213	12 units
Structure & Design of Digital Systems: 18-240	12 units
Two courses in 1 of the ECE Areas.....	24 units
One course in a different ECE Area	12 units
ECE Coverage	12 units
ECE Capstone Design Requirement.....	12 Units

Free Electives: 56 units

Free electives consist of any course not required by any of the above listed requirements. Up to 9 units of pass/fail credit can be used in this category.

This plan is for demonstration purposes only—PLEASE always contact your advisor when making a schedule plan!

Year 1

Freshman Math 1 (10 units)
Physics 1 (12 units)
Introduction to ECE (12 units)
Interpretation & Argument (9 units)
Computing @ CM (3 units)

46 units

Freshman Math 2 (10 units)
Physics 2 (12 units)
Engineering Intro Elective (12 units)
General Education (9 units)

43 units

Year 2

ECE Sophomore Seminar (1 unit)
ECE Core Requirement (12 units)
ECE Math Co-Requisite (12 units)
General Education (9 units)
Introductory Programming (12 units)
Free elective (9 units)
Experiential Learning (0 units)

55 units

ECE Core Requirement (12 units)
ECE Math Co-Requisite (10 units)
Intermediate Programming (10 units)
General Education (9 units)
Free elective (9 units)
Experiential Learning (0 units)

50 units

Year 3

ECE Core Requirement (12 units)
ECE Area 1 (12 units)
Probability & Statistics (9 units)
General Education (9 units)
Free elective (9 units)
Experiential Learning (0 units)

51 units

ECE Core Requirement (12 units)
ECE Area 2 (12 units)
Math/Science Elective (9 units)
General Education (9 units)
Free elective (9 units)

51 units

Year 4

ECE Area 1 (12 units)
ECE Coverage Requirement (12 units)
Math/Science Elective (9 units)
General Education (9 units)
Free elective (3 units)

45 units

ECE Capstone Requirement (12 units)
General Education (9 units)
Free elective (9 units)
Free elective (9 units)

39 units

We strongly recommend that you utilize the [Stellic Degree Planning tool](#) to create a four year plan!

Academic Advising Syllabus

Carnegie Mellon University Institutional Statement on Academic Advising

Academic advising is integral to the educational mission of Carnegie Mellon. Advising is an intentional process, grounded in teaching and learning, and providing each student with guidance for developing and achieving meaningful educational, professional, and personal goals. Successful advising at Carnegie Mellon depends upon a shared understanding of, and commitment to, the advising process by students, advisors and the University. Academic advisors engage students in learning, promote students' academic success, and foster students' personal, ethical, and intellectual growth, all of which will carry into their roles as citizens and lifelong learners.

Expectations of Students

- Demonstrate respect for others and self at all times
- Be knowledgeable of degree requirements
- Take ownership of your academic plan and performance using a variety of resources and tools
- Adhere to Carnegie Mellon standards, policies and procedures: www.cmu.edu/student-affairs/theword/
- Seek out advisors, faculty interactions, contacts, and information on a regular basis
- Utilize campus resources (including your advisor), systems and planning tools
- Check your Andrew email account regularly (also during breaks), manage your inbox and respond to actionable items
- Be actively engaged with your academic advisor and adhere to deadlines
- Be prepared to collaborate with your advisor to set goals and to trouble shoot problems

Expectations of Advisors

- Demonstrate respect for others and self at all times
 - Be knowledgeable of and communicate degree requirements
 - Empower students to create an academic plan in attainment of degree completion and academic goals
 - Advocate for student success and development
 - Be knowledgeable about Carnegie Mellon's standards, policies and procedures: www.cmu.edu/student-affairs/theword/
 - Serve as a liaison for students with campus resources, faculty and professional staff
 - Respond to email in a timely manner and be available to students during regularly scheduled office hours
 - Maintain courteous, respectful and supportive advising environment
 - Collaborate with students to generate solutions to challenges and to re-frame issues for growth
 - Appreciate and advocate for diversity and equity in line with the university's strategic plan
 - Adhere to the guidelines set forth by the Family and Educational Rights and Privacy Act (FERPA)
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Glossary

- **Academic audit:** An academic audit is a tool both you and your academic advisor will use throughout your academic career to track your progress towards graduation. The current CMU academic audit is housed within Stellic.
- **Course Catalog:** The undergraduate course catalog is your contract with CMU. It outlines degree requirements, courses and minors, academic policies, and much more. The year you entered CMU as a fully matriculated student is known as your "catalog year," and you'll be bound by the requirements as outlined in your catalog year, even if they change in the future.
- **IMB:** The Integrated Master's/Bachelor's program allows students to pursue an undergraduate and graduate degree simultaneously. Students typically take between 4 and 5 years to finish the IMB program.
- **Stellic:** Stellic is the new, interactive academic planning platform you can use to view your degree requirements, plan courses into the future, and easily see which courses will satisfy each of your graduation requirements.
- **Student Affairs Liaison:** Your Student Affairs Liaison is a staff member outside of your academic department who is available to help with a wide variety of issues. If you live on-campus, your liaison is your Housefellow.