

## ECE FREQUENTLY ASKED QUESTIONS

The following list of questions are primarily related to the ECE curriculum. For general questions, or questions related to the non-ECE courses, please see [Advising Section](#) of the [ECE Webpage](#), and specifically, the [E.A.S.E. Wiki Portal and FAQs](#) page. In fact, for all your advising needs, see the E.A.S.E. first, as you will find other FAQs, other advising tools, information about minors, specializations and concentration, general education requirements, schedule for withdrawals, and much more.

***How do I make sure that I am on track with all the courses I need to take and/or meeting all graduation requirements?***

The [ECE Curriculum and Advising Sheet](#) is posted on the [ECE Webpage](#). Make sure that you take every class listed in there, in the correct order, and satisfy the additional general education, Rowan Experience and multidisciplinary experience requirements (see below). You can check off these requirements as you meet them and progress through the curriculum. Also, make sure that you meet with your advisor at least once a semester to update them on your progress and ensure that you are on track.

***Can I use GRAD to track my progress?***

Yes, but only to some extent. GRAD is a useful tool to see the program requirements and see your progress toward degree completion. However, GRAD is imperfect, and does make mistakes, and therefore is not an **official** degree audit. In fact, the following disclaimer appears on the top of the GRAD page:

### Disclaimer

You are encouraged to use this degree audit report as a guide when planning your progress toward completion of degree requirements. This is NOT an official evaluation and does not remove the need to consult your advisor. Advisors complete the final graduation check and determine if all requirements have been met. This electronic degree evaluation is an on-line planning tool that allows you to view academic progress. Evaluations are based on catalog requirements that can change from year to year. Therefore, evaluations are NOT to be regarded as an irrevocable contract between the student and the University. Rowan University reserves the right to change any provision or requirement at any time. This audit is not your academic transcript and it is not official notification of completion of degree or certificate requirements. Your academic advisor or the Registrar's Office may be contacted for assistance in interpreting this degree audit report.

The official degree audit is conducted during the semester for which you apply for graduation. However, this is only done to ensure that you have completed (or on track to complete) all requirements for graduation that semester. If there are missing courses / credits / unmet requirements, there is often not enough time to take corrective action. Therefore, it is very important that you meet with your academic advisors regularly, and follow the ECE curriculum listed on the advising sheet to make sure that you are on track.

***I heard from another student that....***

***I assumed that the class ABC satisfies requirement XYZ, but now I am told that...***

Never assume anything, and **never** rely on guidance given by other students. You are responsible for knowing and following all university policies and established graduation guidelines. If a policy or requirement you have read on an official university publication is not clear to you, then please ask your advisor.

***I need Math for Engineering Analysis (MEA), and would like to take it in summer / at a community college / elsewhere. However, such a class does not exist. What shall I do?***

MEA is a combined course of Linear Algebra and Ordinary Differential Equations, both of which are available at many community colleges as well as at Rowan during all semesters (including summer). If you take these two courses, you will have satisfied the requirements of MEA.

***May I take the math / science courses elsewhere, perhaps at a community college or as an online class?***

Yes, as long as the equivalence of that class has been approved by the university. To see the list of approved courses, organized with respect to each of the NJ community colleges and 4-year institutions, see the NJ transfer webpage at <https://www.njtransfer.org/>.

***May I take one of the required core ECE courses elsewhere, perhaps as an online class?***

Subject to approval of the department head, and only in occasional or rare cases, you may ask permission to take a core ECE class elsewhere. To do so, first obtain the approval of your advisor to ensure that the class you want to take is equivalent to the class taught in our program. Your advisor will need a detailed syllabus of the course, the name of the school and instructor and the mechanics of the class (is it online? self-paced or synchronous, does the class require a local proctor for the exams, etc.). Then fill out the "[Approval to Take Courses at Another Institution](#)" and have it signed by both your advisor and the chair. Note that this form is only needed if the course you want to take is not already on the <https://www.njtransfer.org/> lists (see previous question).

***What are Literature (LIT), multicultural/globalism (MG), writing intensive (WI) requirements? Do any of the ECE classes meet these requirements? (Also see next question on new general education requirements)***

**This information is only for students who started before Fall 2018 as Freshman, and those as transfer students who start before Fall 2020. New students starting in Fall 2019 or later, see below for new Rowan Core requirements.** These three are Rowan Experience requirements, instituted by the University. Therefore, all Rowan students must satisfy these requirements to graduate. Certain courses, typically general education courses, have attributes that include one or more of these designations. The only one of the attributes satisfied by the required courses in the ECE curriculum is the Writing Intensive attribute, which is satisfied by Senior Engineering Clinic, where you write a substantial report. The LIT and MG requirements need to be satisfied by one of the general education elective courses you take. Note that you must take five general education courses - 2 SSB, 2 HHL and 1 ACE – one of the SSB requirements is met by the Microeconomics class that is part of the required courses for the ECE program. This means that you have four general education classes that you actually choose. Within these four classes, you can choose courses that also satisfy LIT and/or MG requirements. If those four general education courses that you elect do not meet both LIT and MG requirements, you will need to take additional general education classes to graduate.

***What is Rowan Core?***

Rowan Core is the new set of general education requirements for the University, starting with students entering as Freshman in Fall 2018 or later and transfer students who start Fall 2020 or later. Rowan Core consists of six literacies: Artistic, Global, Humanistic, Communicative, Quantitative and Scientific. The last three are satisfied by the courses in the ECE Major. Therefore, you need to take at least three general education electives, each satisfying one of the Artistic, Global, Humanistic literacies. There are also three Rowan Experience requirements: Rowan Seminar (fulfilled by Freshman Engineering Clinic), Writing Intensive (satisfied by Senior Engineering Clinic), and

Broad-based Literature, which you need to satisfy through one of the Rowan core or other general education classes you take. See the department webpage for the [list of courses available in each literacy](#).

***What is Multidisciplinary / Out-of-Discipline (OOD) requirement, and how do I satisfy it?***

The OOD requirement is a mechanism to give you the opportunity to obtain some knowledge / skills / experience in a non-ECE area. This requirement can be met in several ways: 1) Complete one of your junior or senior clinics on a non-ECE project sponsored by a non-ECE department (note that essentially ECE based projects that are provided by other departments do not qualify); or 2) provide consulting services to a truly non-ECE clinic or other research project through clinic consulting; or 3) Take an approved non-ECE technical elective (or complete a minor outside of ECE). Your advisor must approve and certify that your OOD experience is truly multidisciplinary / out-of-discipline.

***I received a grade less than C- in Calculus I, II or III. Do I really need to repeat this (these) class(es)?***

Yes. Each of these three classes has a minimum grade requirement of C- or better to continue. This is a Math department requirement and there are no exceptions.

***I received a grade less than C in Computer Architecture, Introduction to Electricity & Magnetism, Principles of Electric Circuit Analysis (PECA) or Signal & Systems. Do I really need to repeat this (these) class(es)?***

Yes. These four classes are gateway courses in the ECE curriculum. Each of them requires a grade of C or better to continue to the next course for which any of these courses is a prerequisite. There are no exceptions to this requirement.

***So, then, do I have to wait for another year to take one or more of these classes?***

We offer online versions of all four freshman and sophomore ECE core classes in summer (subject to enrollment minimums) to accommodate students who need them to stay or get on track. These courses are Introduction to Digital Systems, Principles of Electric Circuit Analysis, Computer Architecture and Electronics I. The online courses are taught by the same ECE faculty, and are equivalent to the on-campus courses in their content. The lab portions of these online classes have been redesigned so that they can be done at home using specialized, low cost integrated test & measurement equipment (that you will need to purchase). You have the option to take these classes in summer, which may help you stay on track. Note that at most two of these four classes can be taken in any given summer due to prerequisites.

***I have taken College Composition II and/or Public Speaking. Can I get a waiver for Sophomore Engineering Clinic I and/or II?***

Sophomore Engineering Clinic I includes College Composition II, and Sophomore Engineering Clinic II includes Public Speaking, however, both SEC I and SEC II also have an addition of engineering design component. Therefore, if you have taken College Composition II or Public Speaking, you need to make up for the missing engineering design component, for each semester of Sophomore Engineering Clinic. Depending on which one you need, you may be able to do an Independent Study, or take a bridge course intended for students who have College Composition II and Public Speaking. Please consult with Dr. Everett (representing Experiential Engineering Education, the department that runs FEC and SEC classes), Dr. Polikar or Dr. Head for more details.

***I am missing one or more of the prerequisites for Junior / Senior Engineering Clinic. Can I take it anyway (because I have some background in the project I am interested in / because I will lose a year otherwise / because.... ) ?***

No. If you are missing any of the prerequisites of J/S Clinic (or any other course for that matter – see below), you will not be permitted to take this class. Junior and Senior clinics are capstone classes where you need to put all your knowledge and skills to work. Junior Engineering Clinic requires understanding and mastery of some basic concepts so that you can be productive in a project based environment. These basic concepts are Math (so you need MEA), basic circuits and electronics (so you need Electronics I), basic computer engineering knowledge (so you need Computer Architecture) and writing / public speaking / basic engineering design (so you need Sophomore Clinic). In extreme and rare cases, if you can demonstrate that you have these skills – even though you have not passed all the required classes – you may be allowed to take Junior Engineering Clinic. This decision is made by the Department Head on a case-by-case basis. It should be repeated that this can only happen in exceptionally rare and unusual circumstances where the student demonstrates the mastery of sufficient ECE knowledge and skills. Note that the desire to graduate on time or not wishing to come back to school for another semester – in and of themselves – are not compelling arguments.

***I am missing one or more of the prerequisites for ECE 09.XYZ, but I really need to take that class now to graduate on time. May I get a prerequisite waiver?***

**No.** This is probably by far the most common question we receive, and by far the most common answer is no. The ECE Department does not issue prerequisite waivers, unless there is an extraordinary, compelling, convincing and documented argument that can be made. As mentioned above, the desire to graduate on time or not wishing to come back to school for another semester – in and of themselves – are not compelling enough arguments.

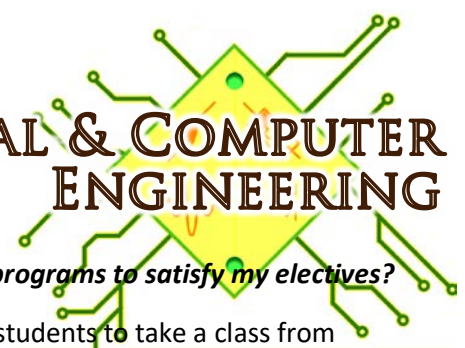
The reason for not allowing prerequisite waivers is not to make life difficult for students, on the contrary, to ensure that the students are adequately prepared for their next class. Specifically, the prerequisites serve to ensure that all students have the necessary background to be successful in the subsequent class(es). You should also know that our accreditation agency ABET is very strict about prerequisite violations. In every visit, they request the transcripts of students and check them course-by-course to make sure that all program requirements are met, and all courses are taken in the correct order with the appropriate prerequisites satisfied. As a result, we rigorously enforce all course prerequisites.

***Can I take a Junior or Senior clinic in summer?***

Possibly. If you can find an ECE or other engineering professor who is willing to offer a clinic section during summer, and the summer clinic project has similar goals, objectives, deliverables, workload, technical content and rigor as a typical Fall/Spring clinic project, you may be allowed to take such a class in summer. Please contact Department Head for details.

***Can I take two clinics during the same semester?***

In general, no. This is because clinic projects are capstone design experiences, and it is very difficult to do two such projects in one semester. Under very rare and extenuating circumstances (such as participating in the optional co-op program or a PDEC clinic) an exception may be made if the student can make a compelling – and pedagogically relevant argument in favor of such an arrangement. Again, the desire to graduate on time or not wishing to come back to school for another semester – in and of themselves – are not compelling arguments.



***May I take a class from Physics, Math, Computer Science or other Engineering programs to satisfy my electives?***

Yes, but subject to prior approval from the Department Head. Usually, we allow students to take a class from other departments to satisfy one ECE elective requirement, as long as the class is relevant to ECE curriculum, it is 400 (or higher) level, and has met appropriate technical rigor, the decision for which is made by the Department Head. 400 (or higher) level 3 or higher credit ENGR classes can always be used to satisfy ECE electives requirements (currently, Finite Element Analysis and Engineering Optimization are the only two such classes available). If you are interested in taking such a class, contact your advisor first, and obtain his/her approval before you ask the Department Head's approval. A note in your GRAD record indicating that an approval is granted is required for this class to count towards graduation requirements.

***Can I get credit for internship or outside employment?***

Internship or outside employment – as long as the job is related to your career - is extremely beneficial, and the ECE Faculty strongly encourages you to pursue such opportunities. However, while internship is supplementary to your education, it is not part of the formal ECE curriculum. Therefore, you may not receive credit for internship or other employment activities. There are two exceptions to this rule: 1) If you are participating in the optional co-op program, your co-op project experience may be counted (requires prior approval of the project); and 2) If you identify a suitable real-world project for which you are being hired as a consultant, you may use that for Clinic Consultant. Please contact Department Head for details.

***I have taken Statics and Dynamics (elsewhere or at Rowan). Can I get out of ME for ECEs?***

No. The content of ME for ECEs include significant amount of material, not found in the statics and dynamics, that are specifically geared for ECEs (such as thermal properties of materials, heat transfer, etc.)

***I have taken / I am taking Statics and Dynamics as part of the ME minor. Can I get out of ME for ECEs?***

Yes, as long as you complete the ME minor. Since completing the ME minor will expose you to several other aspects of ME, many of which are covered in more detail and depth than they are covered in the ME for ECEs class, you do not need to take the ME for ECEs.

***What if I already took ME for ECEs, and now I decide to do an ME minor. Do I have to take Statics and Dynamics?***

Possibly no, if you take a specific set of courses for your ME minor. Please see an ME advisor, as the ME Dept. decides on the ME minor requirements.



***I am planning to complete the Certificate of Undergraduate Studies (CUGS) in Combat Systems Engineering (CSE). What classes do I need to take, and do those classes also count towards ECE degree requirements?***

This CUGS in CSE requires four courses, listed below, only two of which – as specified below – count towards ECE degree requirements.

Course Number	Course Title	SH	Prerequisite Course(s)
ECE 09.423	Introduction to Radar Systems*	3	ECE 09.341 Signals & Systems
ECE 09.424	Introduction to War Gaming and C4ISR**	3	Senior standing
ECE 09.425	Introduction to Command and Control*	3	ECE 09.321 Systems and Control I
ECE 09.426	Introduction to Weapon Systems**	3	MATH 01.230 Calculus III, PHYS 00.220 Introductory Mechanics

\* These two courses, ECE 09.423 and ECE 09.425 can also be used as electives towards BS in ECE degree requirements, regardless whether you are also part of the CUGS in CSE.

\*\* These two courses, ECE 09.424 and ECE 09.426, are for meeting the requirements of the CUGS in CSE only, and they **cannot** be used towards BS in ECE degree requirements. They need to be taken as additional courses to satisfy CUGS completion requirements

***I am only missing one technical elective, or one general education, or just the LIT, MG, or WI requirement, but I have taken other classes (none of which satisfies the missing requirement) and have plenty of credits. Can I graduate?***

**No.** The missing requirement – however minor it may appear to you – must be satisfied to graduate. No exceptions. This is why it is critical to understand the curriculum, meet with your advisor, and ask if you are in doubt. In short, every box in the advising sheet must be checked off for your to graduate.

***We are working as a group for one of my classes, and one / some member(s) of my group is not carrying his/her/their weight. Other members of my group do not seem to care. What shall I do?***

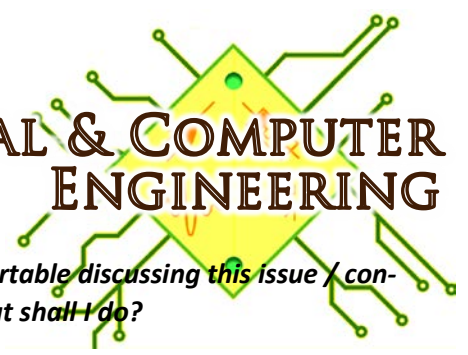
You should bring your concerns to the attention of the course instructor immediately. In most cases, the course instructor can intervene to resolve such issues. If the matter is not resolved by the course instructor, please make an appointment with the department head, Dr. Polikar.

***I have concerns with the teaching fellow or lab assistant for one of my classes. What shall I do?***

Inform course instructor and Dr. Polikar as soon as the issue arises.

***I have safety concerns, and/or believe there is a safety violation in one of the teaching / project labs. Who shall I contact?***

For teaching labs, please inform – immediately – your course instructor, Mr. Mario Leone and Dr. Polikar. For project / research labs, inform – again immediately – faculty member managing the lab, Mr. Mario Leone and Dr. Polikar.



***I have other issues or concerns with the course instructor(s). I do not feel comfortable discussing this issue / concern with him/her/them, or I have raised the issue without any resolution. What shall I do?***

Please make an appointment with Dr. Polikar to discuss these issues. If the issues arise early in the semester, do not wait until the end of the semester to inform Dr. Polikar, so that his intervention has the highest likelihood to resolve the issue in your favor. If the issue impacts multiple students, you are all welcome to jointly talk to Dr. Polikar to raise your concern.

***I believe I have been graded unfairly. What shall I do?***

If you believe your work has been graded unfairly, you should first contact the course instructor(s) and explain your reasoning to him/her/them. The University has a well-documented and extensive [Grade Dispute Policy](#) that described how to handle such cases. If a resolution cannot be reached between you and the course instructor, please follow the directions in this [policy](#).

***I have observed academic dishonesty or have reason to believe that academic dishonesty is taking place in one of my classes. What shall I do?***

Please inform the course instructor(s) and Dr. Polikar immediately. The University has strict [guidelines and policies](#) in place to deal with academic dishonesty issues.

***I have other questions not included here. Where can I go for help?***

If you are a Freshman, please contact the Freshman Advisor, Ms. Maria Perez-Colon. Once you are a sophomore, you will be assigned an ECE professor who will serve as your advisor for the remainder of your studies in the program. You will be able to find who your advisor is on Student Self Service. You should then contact your advisor first. If the issue cannot be resolved by your advisor, or you are unable to contact your advisor, please inform Dr. Polikar.

We actually recommend that you contact your advisor at least once a semester to discuss your progress in the program, even if you do not have specific questions. That way, any potential issues can be brought to surface and addressed in a timely manner.

***Can I raise my issues / concerns with upper university administrators (deans, provost, vice presidents, the president) for faster resolution?***

You can certainly raise a concern with whomever you feel is appropriate to help. That said, in vast majority of the cases your advisors, instructors and department head are better equipped to resolve your issue. Contacting University's upper administrators, such as deans, vice president, the provost or the president, may in fact delay a resolution, as those individuals will most likely send the issue back to the appropriate department to investigate. If you have an academic issue, contact your advisor / course instructor first. If you have a safety issue, contact your instructor, Mr. Leone and the department head (Dr. Polikar). If you have an administrative issue related to academics / curriculum, feel free to contact Dr. Polikar first.