

ADVICE FOR ECE TRANSFER STUDENTS (revised 05-11-09)

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Communication Tools: All ECE students are required to be knowledgeable about the Department and events taking place within the Department. The following communication tools **must be used** to acquire the required information:

- **ECE World Wide Web Home Page:** <http://www.ece.illinois.edu> containing all the advising information and much more
- **My.ECE Home Page:** <https://my.ece.illinois.edu/index.asp> containing important news about the ECE department, and announcements (for example regarding ECE faculty mentoring appointments).
- **Electronic Mail:** You **must** use electronic mail. Most ECE Department information is sent to students via electronic mail. Don't let your mailbox get full or you'll miss the messages.

This information is meant to serve as a guide. Do not hesitate to contact the Undergraduate Advising Office for assistance. <http://www.ece.illinois.edu/current/ugrad/advising.html>

Strategies for Academic Success During the First Semester at UIUC:

- Take no more than 15 hours (12 hours is considered full-time).
- Be prepared to drop a 3 hour elective course -- but not a core ECE/Math/Physics/CS class -- and take 12 hours.
- Take a humanities class even if you don't need the credit -- it's a welcome break from a heavy technical load. Strategically, it may allow you to drop a technical course if unavoidable.
- Get to know other students in your classes and study with them in groups.
- Get to know your professors and go see them when they hold office hours, even before you need help.
- As a rule of thumb, you need to study 3 hours for each hour you spend in lecture.
- A 15 hour a week job is like a 5 hour course. Watch your total workload!
- Go to Class!
- Get Help Early

Background for Course Selection

Almost all transfer students have to make choices on the day of registration, especially for technical electives and humanities / social science electives. The purpose of our advising session is to guide you to an intelligent selection of courses for your first term. It is most important to evaluate your preparation for our courses, but it is of much less importance to determine the extent of *all* your transfer credit, which can be done later.

Our Suggestion for Classes

We have reviewed your transfer credit sheets and have made suggestions for your schedule, depending on whether you are an EE *or* CompE major --- see your degree curriculum map (grey handout). You are asked to finalize your course schedule in consistency with our recommendations, but also taking into account other factors such as how rigorous your previous courses were, and whether or not you learned the material well enough to go on with UIUC courses. Ultimately, **you are responsible for determining your schedule.**

We may have made other notes regarding transfer credit on your graduation reports. You have to review our suggestions carefully, and do your own evaluation of classes that have not been used for any credit (see yellow handout for help).

Finally, our recommendations (and the information given below) are consistent with the new ECE curriculum rules applicable to students entering UIUC since the Fall 2006 semester.

Help in Getting Your Classes

Once you've decided which classes you want and "backups" in case some courses are unavailable, you will use a computer to register (use 406B1 Eng. Hall or 167 Everitt Lab).

The staff in 156 Everitt Lab can help you in registering for ECE courses. In some cases the courses will appear closed because we are saving spaces for transfer students. You will be able to see if seats are available by looking up the numbers of students registered and the maximum allowed in one section.

We will not be of much help in getting non-ECE courses. You may contact the department in question. Keep trying! Often students drop courses later on, especially at the beginning of the term. **All students may change their schedule the first two weeks of classes.**

Examples of the Most Common Course Schedules Taken by Transfer Students

COMPUTER ENGINEERING

(Entering with missing Math/Physics)

ENG 300	0	Transfer Orientation
ECE 110	4	Intro ECE
Math	4	To be determined
Physics	4	To be determined
Hum/SS/free	3	Gen. Ed. or free elective
Total	15	

ELECTRICAL ENGINEERING

ENG 300	0	Transfer Orientation
ECE 110	4	Intro ECE
Math	4	To be determined
Physics	4	To be determined
Hum/SS/free	3	Gen. Ed. or free elective
Total	15	

or

(Entering without credit for circuits and lab)

ENG 300	0	Transfer Orientation
ECE 110	4	Intro ECE
ECE 190	4	Intro Computer Systems
Tech Elec	3	see Tech Electives list
Hum/SS/free	3	Gen. Ed. or free elective
Total	14	

ENG 300	0	Transfer Orientation
ECE 110	4	Intro ECE
ECE 190	4	Intro Computer Systems
Tech Elec	3	see Tech Electives list
Hum/SS/free	3	Gen. Ed. or free elective
Total	14	

or

(Entering with lecture credit for circuits only)

ENG 300	0	Transfer orientation
ECE 110 lab	2	Intro ECE lab
ECE 290	3	Intro Computer Eng.
ECE 190	4	Intro Computer Systems
Tech Elec	3	see Tech Electives list
Hum/SS/free	3	Gen. Ed. or free elective
Total	15	

ENG 300	0	Transfer Orientation
ECE 110 lab	2	Intro ECE lab
ECE 210	4	Analog Signal Proc.
ECE 190	4	Computer Systems
Tech Elec	3	see Tech Electives list
Hum/SS/free	3	Gen. Ed. or free elective
Total	16	

or

(Entering with credit for ECE 110 and ECE 190, and (ECE 290 or ECE 210))

ENG 300	0	Transfer Orientation
ECE 210	4	Analog Signal Proc.
ECE 385	2	Digital Systems Lab
Tech Elec	3	see Tech Electives list
Stat 400	4	Statistics and Probability, prerequisite for Stat 410
Hum/SS/free	3	Gen. Ed. or free elective
Total	16	

ENG 300	0	Transfer Orientation
ECE 290	3	Intro Computer Eng.
ECE 329	3	Intro Electromag. Fields
Tech Elec	3	see Tech Electives list
Stat 400	4	Statistics and Probability, prerequisite for Stat 410
Hum/SS/free	3	Gen. Ed. or free elective
Total	16	

Course Suggestions (in approximate order of priority)

-- Technical course suggestions common to both EE's and CompE's --

- 1. ENG 300 (0 hours):** Required of all new transfer students. The course is for orientation, lasts four weeks and introduces you to the college -- it's worthwhile and painless -- no homework, no grade.
- 2. Physics / Calculus:** If you have not completed either the physics sequence (Phys 211/212/213/214), or the Math sequence (Math 221/231/241/286); this is your highest priority. If you have been given credit for Math 285, then you must take Math 487 (offered in the spring only!) to get credit for Math 286. If you have been given credit for Math 242 but have credit for Math 286, take Math 292 (2 hours).

For items 3-5 see the Course Schedule Guidelines (yellow handout).

3. Required ECE Courses:

- **First Circuits Class:**
 - * **ECE 110 (Introduction to Electrical and Computer Engineering):** If you have not had a beginning circuits class, take ECE 110 (4 hours). This course has a great design lab. Although taken mostly by freshmen, you will find many transfer students, as well as some engineers in other curricula, as your classmates.
 - * **"LAB 110":** If you already have credit for a basic circuits class but have not had an EE laboratory course with substantial design, you should take the laboratory portion of ECE 110. This will be offered under a special course number, **ECE 397, special section** (2 hrs). Ask us what to do.
 - * **Second Circuits (and Systems) Class:** If you already have credit for a basic electrical circuits class, then you should take **ECE 210 (Analog Signal Processing; 4 hours)**
 - **Beginning computer class:** Both EE's and CompE's must take an introductory computer science class. **ECE 190 (Introduction to Computing Systems, using C; 4 hours)** is now the required computer class for all incoming students. CompE students must also take **CS 225 (Data Structures, using C++, 4 hours)**, which is an elective for EE's. CS 101 (Intro to Computing, 3 hrs, using C, taken by most other engineers) is not sufficient.
 - **If you have no beginning CS credit, take ECE 190.**
 - **If you have credit for CS 101, take ECE 190.**
 - **If you have credit for CS 125, take ECE 190.**
 - **If you plan to take CS 225, only if you are confident in your abilities, you may take CS 225.**
 - **Note that if you have no EE (electrical circuits and logic gates) and no CS (programming) background, we do not advise you to take ECE 110 and ECE 190 concurrently (pace will be tough). ECE 110 should be completed first.**
 - **Intro. Computer Engineering ECE 290 (3 hours):** The prerequisite is any introductory programming course, such as CS 101 or CS 125, and ECE 110.
 - **Digital Systems Lab:** If you have credit for ECE 290 and a beginning circuits class, you may enroll in ECE 385 (Digital Systems Lab; 2 hours).
 - **Junior Level Core Courses:** Only if you are very well prepared should you take ECE 329 (Intro. Electromagnetic Fields) or ECE 440 (Solid State Electronic Devices).
- ### 4. Math / Probability Course (Required: ECE 313 or Stat 410):
- **STAT 400/Math 463 (Introduction to Mathematical Statistics and Probability, I; 4 hrs)** is a free elective that can be taken in preparation for STAT 410 or ECE 313. Beginning transfer students should skip STAT 400 and take ECE 313 if and only if they already have credit for ECE 210 (which most students don't).

-- Technical elective suggestions for EE's only --

5. Technical Electives: The rules for technical electives allow freedom in course choice. At this time, however, most of you do not have the prerequisites to take upperclass ECE electives. Thus, you are likely to want to take a course or two to broaden your technical background.

- See the long list of accepted technical electives on the web and in the handout for other suggestions. May we suggest (if you are done with the Math required sequence) Math 415, Linear Transformations and Matrices, or Math 487, Advanced Engineering Math.

-- Technical elective suggestions for CompE's only --

6. Required Math Courses:

- **CS 173 (Discrete Structures; 3 hours) or Math 213 (Discrete Math; 3 hours).**
If you have no programming experience, you may prefer to take **CS 173**.

7. ECE/CS Technical Electives:

While most 300 and 400 level ECE and CS courses count, you are unlikely to be ready for them. Most CS classes require CS 225 as a prerequisite, while the ECE courses require more ECE work.

-- Social science and humanities suggestions for both EE's and CompE's --

8. Social Science or Humanities Elective (Gen. Eds) (3 hours): Choose at least one of these to break up an otherwise heavily technical semester. The rules are attached (tan handout).

9. Advanced Composition: Perhaps it's time to satisfy your second writing requirement. You may choose it so that it also satisfies a Gen. Ed. or social science/humanities requirement. Be aware that some Advanced Composition classes are very time consuming, and not recommended for a first semester.

10. Free Elective: Although most of you have several courses that count towards the 12 hours of free electives, you can take additional free electives, such as a 1-hour course in kinesiology (phys. ed.).

11. Foreign Language: Finish your foreign language requirement if you haven't already.