

ANNOUNCEMENT

RE: ECSE SENIOR DESIGN

Fall vs. Spring Registration and Other Updates on ECSE Degree Requirements

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Department Head

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As you are aware, we are phasing out most of the design courses in favor of ECSE Design (ECSE 4900). Since this course is offered both fall and spring terms, it is now possible for EE and CSE students to design a schedule that better meets personal goals. To facilitate your choice of senior year courses, here are some issues you should consider as you decide when to take ECSE Design. Generally speaking *it is better to take your design course in the fall*, but you should consider all of the following before making your decision. EPE majors will continue to take their design course in the spring.

- a. Fall: Taking ECSE Design in the fall term has several advantages. First and probably foremost, you will have a complete design project to discuss when you interview for a job. This is indeed a significant advantage since recruiters want to know what you have done that most closely resembles an actual work experience. Second, some students get sufficiently engaged in their design project that they would like to continue it. Clearly, this can only be done if the project is begun in the fall.
- b. Spring: Taking ECSE Design in the spring also has some advantages. You will have another semester of background courses behind you so you should have more tools to work with on your design. If you get a job offer or clearly identify the type of job you definitely want, you may be able to guide your project into areas that are directly relevant to chosen career direction and few students have their jobs lined up early in the fall term.
- c. Either term: Since the course is offered both terms, you should identify all of the other courses you want to take first and then put ECSE Design in the term that has room for it. However, when you work out your schedule for the fall term, you should look for options that include ECSE Design, even if you hope to take it in the spring. Scheduling ECSE Design is a bit more flexible than other courses since it has several sections and your final

choice of senior year courses will depend on the times they are offered. This is a bit of an advantage for the fall. If you identify a good schedule for yourself for the fall term that includes ECSE Design, you should probably take it then since there are no guarantees that you will get your ideal schedule in the spring. Also, the special facilities and resources necessary to offer this course make it essential that we have approximately the same number of students in each term. If you do not plan well and just let this course wait until the spring, you may find your options to be very limited. Finally, you may want to take your design course with some good friends who have similar technical interests. If this is the case, you will need to discuss the fall vs. spring issue with them.

d. General Recommendation: On balance, if your choice of other courses permits you to choose either term, the fall makes a somewhat better choice than the spring.

Additional Information on ECSE Degree Options

The degree templates for all of the various options open to ECSE students have been updated to reflect the changes in design courses. Please be sure that you use the most up-to-date template for your class year. The templates (also called checklists) are available online at <http://www.ecse.rpi.edu/advising.htm#cklist>. The major changes made in the templates generally reflect a greater degree of flexibility in the degree programs. They include:

- The design elective for EE and CSE has been moved to the fall in all cases with a superscript indicating that it can be taken either term
- Microprocessor Systems Design has been deleted from the design elective list for both EE and CSE.
- Mechatronics and Microprocessor Systems have been added to the EE Lab Elective list and the name for CAL has been changed to Real-Time Control and Communications.
- The 6000-level Software Engineering I course has been deleted from the list of CSE Software Engineering Electives. CSCI-4440 is now the basic software engineering course recommended for CSE majors.
- Reminder of a change made last term: ECSE-2050 Intro to Electronics is required of all EE majors. Digital Electronics is now ECSE-4040 and is now a co-requisite for VLSI Design (ECSE-4220). Digital Electronics is highly recommended for most EE majors.

Comments from David Nichols – ECSE Undergrad Advisor

Class of 2010 (Freshmen):

Freshmen are the first class to have a Communications Requirement rather than a Writing Requirement. The Communications Requirement has two components,

one within the major and the other within H&SS. ECSE design electives satisfy the "within major" part of the requirement so students will need to find an H&SS course that completes the requirement. A link to the list of suitable H&SS courses can be found on SIS near the bottom of the page. Unfortunately, it is a very short list and most ECSE majors need to take two H&SS course in the 2nd year. So postponing the H&SS communications component until the junior might be necessary for some students. The list will be longer for the next registration cycle.

All students should make a plan showing how they will satisfy the H&SS Requirements, the Communications Requirement and the ABET Requirement. The ABET approved H&SS courses, from which students must take at least one, can be found at:

<http://hibp.ecse.rpi.edu/%7Econnor/ecse/ABET%20Courses.pdf>

Freshmen will declare their majors officially next fall. Students considering majors other than ECSE should seek out a faculty member in the other department for advice. Pat Rickert of the Core Engineering office can provide names to the students.

Class of 2009 (Sophomores):

Usually, second year students only need one or two additional H&SS courses to satisfy the H&SS Core requirements. Be sure your choice(s) for these courses fulfill all the requirements given on the CAPP as well as the ABET requirement (see above). There is not much room for taking another H&SS course in the senior year. Sophomores are not required to complete the Communications requirement but must satisfy the Institute Writing requirement. All ECSE design electives satisfy the Institute Writing Requirement so no additional writing course is necessary.

Second year students should be considering co-op's and study abroad opportunities to be taken during the junior year. The place to begin learning about co-op is the CDC in the Darrin Communications Center, and for study abroad, the Dean's Office in 3002 JEC.

Class of 2008 (Juniors):

Juniors must have a plan for the entire senior year that includes the Restricted Electives for their Concentration and should have considered prerequisites for these electives. For example: students wishing to take Computer Applications Laboratory (Now known as Real-Time Control and Communications) in the Spring 2008 semester need to take either 4510 or 4520 in the Fall 2007 semester. Students who have difficulties selecting a concentration should contact their advisor and/or other ECSE faculty for their opinion about how the concentration affects chances of getting into grad school or getting a job.

All juniors should be sure to read over the information above on which term is best for ECSE Design. Again the general recommendation is to *take ECSE Design in the Fall*. ACHD, however, is only offered during the spring and requires CHD to be completed during the fall 2007 semester.

Class of 2008 (seniors):

All co-op students and other students who will be graduating next December need to have a one-semester plan for their degree completion.

If complex problems arise feel free to send the students with H&SS problems to Elizabeth Large in Sage 5208. David generally also recommends seeing him for difficult problems (his office is now JEC 6046). However, due to his injury, students should see one of the other advisors for their class year or any other ECSE professor.

For questions on any part of this announcement, please contact Prof. Connor (connor@rpi.edu).