Course notes and changes (2014-2015)

1. ECE Specialization Courses updated:
These ELEC courses have been added to the lists and will count towards Specialization as below:

- ELEC 365: (Photonics and Nanoengineering.)
- ELEC 419, 427: (Computer Engineering.)
- ELEC 488 / CAAM 415 and ELEC 489/CAAM 416 crosslisted (Neuroengineering.)
- ELEC 498 / MECH 498 crosslisted (Systems.)

These courses have changes in status:
- ELEC 446 (Computer Engineering) only and is removed from Systems Specialization Area.
- COMP 221 (Computer Engineering) remains on the list and is now renumbered as COMP 321.

2. ECE Computation Course Requirement changed:
For students joining Rice starting with the Fall 2014 semester, COMP 140 will be the approved course for the ECE computation requirement. COMP 140 will be required for all specialization areas in ECE. CAAM 210 will no longer be an option for the computation requirement.

3. ECE Advising Procedures:
ECE students are required to meet with their ECE Major Advisor before registering for ELEC 301, ELEC 327 or 332 or 364, and both semesters of ELEC 494. Advising sessions will be arranged the week before registration and announced via e-mail. Please bring your updated Degree Plan to your Advisor for review and signature, and then bring this form to one of these special advising sessions. ECE Major Advisors will collect your Degree Plan and a copy will be kept in your student file. In return, you will receive a signed “Instructor Permission” form to take to the Registrar’s office. Please meet with your Advisor during the pre-registration periods in November and April.

Please note that for any other course(s) with "Instructor Permission", please fill out the UG special registration form and meet with the instructor. The instructor’s signature will be needed and the form returned to the Registrar before you can register for that course. The ECE Undergraduate Coordinator can help if the instructor is not available.

4. ECE Capstone Senior Design Sequence:
Dr. Gary Woods will coordinate the Senior Design projects again this year and faculty will be involved in the design experience. Both the fall and spring semesters of ELEC 494 are now each 3 credit hours. The ELEC 494 lectures will be coordinated with several other departments in 2014-2015 to encourage more multi-disciplinary design projects.

Required Design Laboratory: The Students choose one of the approved design laboratory courses typically based on their Specialization Area:-

a) ELEC 327 Implementation of Digital Systems for Computer Engineering Area.
b) ELEC 332 Electronic Systems Principles and Practice for Systems Area.
c) ELEC 327 or ELEC 332 for Neuroengineering Area.
d) ELEC 364 Photonic Measurements: Principles and Practice for Photonics and Nanoengineering Area.

*Note: that the required Design Laboratory does not count as specialization.*
The Design Laboratory courses will only be offered in the spring semester and typically taken in the Junior year.

The number of Specialization courses for the BSEE degree is six, with at least three courses in the main Specialization area. Note: If the Design Laboratory requirement (ELEC 327, 332, or 364) is satisfied with the lab in their chosen Major Specialization Area, then the student takes 3 of 6 courses in their chosen Major Specialization Area. However, if the Design Laboratory requirement is satisfied with the lab in their Minor Area, then it is recommended that the student takes 4 (four) of 6 courses in their chosen Major Specialization Area to compensate. It is important to consult a departmental advisor in this situation or if interested in taking a second Design Laboratory course.

<table>
<thead>
<tr>
<th>ECE Senior Design Sequence</th>
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<tbody>
<tr>
<td>Year</td>
<td>Courses</td>
</tr>
<tr>
<td>Junior Spring Design Lab</td>
<td>ELEC 327 or 332 or 364, 3 hours</td>
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<tr>
<td>Senior Fall Project</td>
<td>ELEC 494, 3 hours</td>
</tr>
<tr>
<td>Senior Spring Project</td>
<td>ELEC 494, 3 hours</td>
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</tbody>
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5. The following courses are new and will be offered in Fall 2014 & Spring 2015:

ELEC 365- NANOMATERIALS FOR ENERGY (new course) (P&N Specialization).
ELEC 661- NANOPHOT, SPECT, MAT4SUST (new course).
ELEC 681- FUNDAMENTALS OF MACHINE LEARNING (new course).

Fall 2014 Registration is April 14-18, 2014
Spring 2015 Registration is November 17-21, 2014

Please contact an Undergraduate Advisor for the most recent updates.