Approved Outside Technical Electives  
Electrical & Computer Engineering 2009-2010

A student wishing to take courses not on this list must secure advance approval from the Department by means of a petition. See your advisor about courses 593, 692, 793, and 699 outside the ECE department.

**Electrical Engineering Specialization**: Some courses approved for this purpose are:

**Biomedical Engineering**: BIOMED E 500, 571, 600, 631, 686, 701, 721, 732, 733, 739, 741, 761, 762, 763, 771.
**Business**: BUS-ADMIN 555. BUS-FIN 510, 590, and 620. BUS-MGT 630, BUS M&L 490, 650. BUS MHR 490, 590, 660, 701 are especially appropriate for students interested in entrepreneurship or pursuing a subsequent business degree.
**Chemical and Biomolecular Engineering**: CHBE 769 (cross-listed with BIOMED E 761).
**Chemistry**: CHEM 251 through 255.
**Computer Science and Engineering**: CS&E 214, 230, or 502 or any 500-level or above course (excluding CS&E 668, 675.01, 675.02 and 676 and 779) that is not directly comparable to an ECE course.
**Evolution, Ecology, and Organismal Biology**: EEOB 232.
**Industrial and Systems Engineering**: ISE 350, 410, 600, 752.01, 601, 681, 682.
**Mathematics**: MATH 512; 513 or 551; 514, 552 or 654; 566; 569, 572 or 601; and 602. Note that you cannot double-count a particular math course as both a selected core course and an outside technical elective. Math 530, 568 and 571 may not be used as outside technical electives.
**Mechanical Engineering**: Any 500-level or above course* (excluding 571, 773, and 776) which is not directly comparable to an ECE course. *May use up to 6 hours in 580, and up to 4 hours in 652.
**Nuclear Engineering**: Any 500-level or above course. 505 is especially appropriate for students with power interests.
**Physics**: Any 500-level or above course (excluding 517, 525, 555, 596, 617, 656, 657, 670, and 795) that is not directly comparable to an ECE or other engineering course.
**Statistics**: STAT 428. STAT 427 may not be used as an outside technical elective.

**Computer Engineering Specialization**: Often after students have completed 15 hours of ECE courses and 12 hours from the prescribed list of technical electives, there will be additional hours of the 24-33 hour requirement left. Some courses approved as outside technical electives are:

**Biomedical Engineering**: BIOMED E 500, 571, 600, 631, 686, 701, 721, 732, 733, 739, 741, 761, 762, 763, 771.
**Business**: BUS-ADMIN 555. BUS-FIN 510, 590, and 620. BUS-MGT 630, BUS M&L 490, 650. BUS MHR 490, 590, 660, 701 are especially appropriate for students interested in entrepreneurship or pursuing a subsequent business degree.
**Chemical and Biomolecular Engineering**: CHBE 769 (cross-listed with BIOMED E 761).
**Chemistry**: CHEM 251 through 255.
**Computer Science and Engineering**: any 500-level course or above (excluding CS&E 502, 548, 668, 675.01, 675.02, 676, and 779) this is not directly comparable to an ECE course. Please note that CS&E 214, 230, and 502 DO NOT count for outside technical electives in this specialization.
**Evolution, Ecology, and Organismal Biology**: EEOB 232.
**Industrial and Systems Engineering**: ISE 350, 410, 600, 752.01, 601, 681, 682.
**Mathematics**: MATH 512; 513 or 551; 514, 552, or 654; 566; 569, 572 or 601; and 602. Note that you cannot double-count a particular math course as both a selected core course and an outside technical elective. Math 530, 568 and 571 may not be used as outside technical electives.
**Mechanical Engineering**: Any 500-level or above course* (excluding 571, 773, and 776) which is not directly comparable to an ECE course. *May use up to 6 hours in 580, and up to 4 hours in 652.
**Nuclear Engineering**: Any 500-level course or above. 505 is especially appropriate for students with power interests.
**Physics**: Any 500-level or above course (excluding 517, 525, 555, 596, 617, 656, 657, 670, and 795) that is not directly comparable to an ECE or other engineering course.
**Statistics**: STAT 428. STAT 427 may not be used as an outside technical elective.