

## **Approved Outside Technical Electives**

## **Electrical & Computer Engineering 2011-2012**

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, 693, 793, and 699 outside the ECE department.

## **Electrical Engineering Specialization**

Biomedical Engineering: BIOMEDE 500, 571, 600, 631, 686, 701, 721, 732, 733, 739, 741, 761, 762, 763, 771.

**Business: BUSADM** 555. **BUSFIN** 510, 590, and 620. **BUSMGT** 630, **BUSML** 490, 650. **BUSMHR** 490, 590, 660, 701 are especially appropriate for students interested in entrepreneurship or a subsequent business degree.

Chemical and Biomolecular Engineering: CHBE 769 (cross-listed with BIOMEDE 761).

Chemistry: CHEM 251 through 255.

**Computer Science and Engineering**: **CSE** 214, 230, or 502, 421, any 500-level or above course (excluding CSE 668, 675.01, 675.02 and 676 and 779) that is not directly comparable to an ECE course.

**Engineering: Engineer** 658 and 659.01 (if not used for ECE 582). Engineer 659.02 (if not used for ECE 682), Engineer 680 **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 **MECHENG** 500-level or above course\* (excluding 571, 773) 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 **NUCLREN** 500-level or above course. 505 is especially appropriate for students with power interests.

**Physics:** Any **PHYSICS** 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.

<u>Computer Engineering Specialization</u>: 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.

Biomedical Engineering: BIOMEDE 500, 571, 600, 631, 686, 701, 721, 732, 733, 739, 741, 761, 762, 763, 771.

**Business**: **BUSADM** 555. **BUSFIN** 510, 590, and 620. **BUSMGT** 630, **BUSML** 490, 650. **BUS MHR** 490, 590, 660, 701 are especially appropriate for students interested in entrepreneurship or a subsequent business degree.

Chemical and Biomolecular Engineering: CHBE 769 (cross-listed with BIOMEDE 761).

Chemistry: CHEM 251 through 255.

**Computer Science and Engineering**: CSE 421 and any 500-level course or above (excluding **CSE** 502, 548,668, 675.01, 675.02, 676, and 779) this is not directly comparable to an ECE course. *Please note that CSE 214, 230, and 502 DO NOT count for outside technical electives in this specialization.* 

**Engineering**: **Engineer** 658 and 659.01 (if not used for ECE 582). Engineer 659.02 (if not used for ECE 682), Engineer 680 **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**: **MECHENG** Any 500-level or above course\* (excluding 571, 773) 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 **NUCLREN** 500-level course or above. 505 is especially appropriate for students with power interests.

**Physics**: Any **PHYSICS** 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.