

## Electrical Engineering Requirements and Sample Schedules

(from the 2006-2007 Union College Catalog)

Requirements for the Major: a total of 40 courses including the following:

- Science and Math: (Math 113\*, 115, 117, Physics 120, 121) or (IMP 111, 112, 113), Math 130; one science elective numbered 100 or higher (Chemistry 101, Physics 122, or Physics 123 are recommended); one Math or Science elective numbered 100 or higher.
- Engineering and Computer Science: ESc 100, CSc 070 or CSc 105\*\*, MER 201 or MER 231
- Electrical Engineering Core: ECE 118, 225, 240, 241, 248, 343, 350, 351, 363, 366
- Electrical Engineering Electives: 3 additional ECE courses numbered 300 or higher. Students may also enroll in graduate engineering courses offered through Union Graduate College. Please see the Union Graduate College catalog for course descriptions.
- Capstone Design: ECE 497 (1/2), 498 (1/2), 499
- Core Components Curriculum: 7 to 10 courses depending upon the options chosen
- Free Electives: up to 7 free electives, depending upon how the Core Components Curriculum is satisfied. Courses should be chosen in consultation with the student's advisor to enhance one or more of the program objectives.

\*Note: Math 110 and 112 may be taken in place of Math 113, in which case Math 110 counts as a free elective.

\*\*Note: CSc 105 is recommended for students who wish to take additional courses in CS

### Sample Schedule (starting with Math 110)

#### Freshman Year

Fall: Elective\*, ESc 100, MTH 110

Winter: Elective\*, CSc 070 or CSc 105, MTH 112, PHY 120

Spring: Elective\*, MTH 115, PHY 121

#### Sophomore year

Fall: Elective\*, ECE 118, ECE 225

Winter: MER 201, ECE 240, Math 130

Spring: Elective, ECE 241, ECE 248, Math 117

#### Junior year\*

Fall: Term abroad option\*\* or Elective\*, ECE 351, ECE 363

Winter: Elective\*, ECE 343, ECE 350, Math/Science elective.

Spring: Elective\*, ECE 366, ECE 497, Science elective

#### Senior year

Fall: ECE elective 1, ECE 498, Elective\*, Elective\*

Winter: ECE elective 2, ECE 499, Elective\*, Elective\*

Spring: ECE elective 3, Elective\*, Elective\*

\*Electives should be chosen to satisfy the Core Components Curriculum. Students should determine as early as possible how they will satisfy these requirements and should work closely with their academic advisor to develop an appropriate plan of study.

\*\*The fall term of the junior year is the recommended term for going on a full term abroad