APPLICATION FOR MAJOR AFFILIATION

STUDENTS COMPLETE THIS SECTION

Name: ___________________________ Expected degree date: ________

Major: ___________________________ ID#: ___________________________
(to which you are applying) (7 digit-Student ID)

Cell Phone ____________________

Concentration/Interest: ___________________________ E-mail: ____________
(if known) (Net ID)

Current Advisor Name & Dept.: ___________________________

Student Signature: ___________________________ Date: ________________

Students: Please submit form to the Office of the Major to which you are applying.

Biological Engineering (207 Riley-Robb Hall) Engineering Physics (261 Clark Hall)
Chemical Engineering (226 Olin Hall) Information Science System and Tech (110H Gates Hall)
Civil Engineering (221 Hollister Hall) Material Science and Engineering (210A Bard Hall)
Computer Science (110E Gates Hall) Mechanical Engineering (108 Upson Hall)
Electrical and Computer Engineering (223 Phillips Hall) Operation Research and Engineering (203 Rhodes Hall)
Environmental Engineering (221 Hollister Hall) Science of Earth Systems (2124 Snee Hall)

MAJOR CONSULTANTS or MAJOR COORDINATORS

COMPLETE THIS SECTION

Date Received: ________________

Affiliation Approved ☐ Affiliation Denied ☐ Affiliation Conditional ☐

Conditions/Comments: _____________________________________________
_______________________________________________________________
_______________________________________________________________

Update Class/Term (if needed): New Class (2,3,4) ____________ New Term (1,2) ______

New Advisor: ___________________________ EMPL ID: ____________

Advisor Campus Address: ___________________________ Advisor E-mail: ______

Major Consultant’s Signature: ___________________________ Date: ____________

Original to Engineering Registrar’s Office
Copy to Major Office
Cornell ECE Affiliation

Engineering students formally select their engineering major, or what we call “affiliate with a major”, by the end of the first semester of their sophomore year. Once you have submitted your application for affiliation, the ECE major coordinator reviews your grades to determine if you have satisfied the major affiliation requirements. (If you are ahead or behind a semester, consult with an ECE Major Coordinator to determine appropriate coursework and procedures.)

The ECE affiliation requirements:

- Be in good academic standing in the College of Engineering
- Must have completed with a grade of C+ or better MATH 2930, PHYS 2213, and either ECE/ENGRD 2100, ECE 2200, or ECE/ENGRD 2300
- Must have an average GPA of at least 2.5 in the following courses if completed: MATH 1920, 2930, 2940, PHYS 2213, ECE/ENGRD 2100, ENGRD 2110, ECE 2200, ECE/ENGRD 2300

If your application is approved, you will be affiliated with ECE and an ECE faculty advisor will be assigned to you. If you do not fully meet the requirements listed above, we encourage you to describe your particular circumstances during the affiliation process and we will work with you to prepare for entering in the ECE major. For more information please contact the Undergraduate Office at 222 Phillips Hall for assistance.
B.S. Degree Major Requirements Curriculum Chart

Required Core Courses
Three (3) courses. Total credits 12.

- ECE 2100 Introduction to Circuits for ECEs
  Coreqs: MATH 2930, PHYS 2213
- ECE 2200 Signals and Systems
  Prereqs: MATH 2930 & CS 1110 or 1112
  Coreq: MATH 2940
- ECE 3400 ECE Practice and Design
  Prereqs: ECE 2100, 2200, 2300

Engineering Distribution
Three (3) courses. Total credits 10-11.

- ENGRD XXX Cannot be ECE/ENGRD 3100. Must belong to a different ENGRD category from ECE/ENGRD 2300
  Prereq: CS 1110 or 1112
- ECE/ENGRD 2300 Introduction to Digital Logic
  Prereq: MATH 1110 or 1112

Foundation Courses
Minimum three (3) courses. Total credits 12.

- ECE 2100 Introduction to Circuits for ECEs
  Coreqs: MATH 2930, PHYS 2213
- ECE 3030 Electromagnetic Fields and Waves
- ECE 3150 Intro to Microelectronics
  OR
  ECE 3250 Mathematics of Signals and System Analysis
  Prereqs: MATH 2930, MATH 2940, ECE 2200 (or permission of instructor)

Must take at least one:
- MATH 2930, MATH 2940, ECE 2100
- ECE 3030 Electromagnetic Fields and Waves

Must take at least one:
- ECE 2200 Signals and Systems
  Coreq: MATH 2940
- ECE 3140 (CS 3420) Embedded Systems
  Prereq: ECE/ENGRD 2300

Additional Requirements
Courses fulfilling major requirements may also be counted here.

Outside-ECE Technical Electives
Three (3) courses. Total credits 9-12.

See rules governing traditional lecture courses, project work and independent study at www.ece.cornell.edu/ece/academics/undergraduate/major/outsideelectives.cfm.

1. ______________________
2. ______________________
3. ______________________

Probability & Statistics
Choose one (1):
- ECE/ENGRD 3100
- ENGRD/ORIE 2700
- OEE 3040
- MSE 5730

*Other courses may be allowed by an ECE petition.

Advanced Programming/Computer Engineering
Choose one (1):
- CS 2110
- ENGRD 3200
- ECE 4740
- ECE 4750
- ECE 4760

*Other courses may be allowed by an ECE petition.

Culminating Design Experience / Breadth & Depth Courses
Together, the two CDE courses plus the two B/D courses must include at least three Foundation Courses (ECE 3030 or 3150; ECE 3100 or 3250; ECE 3140 or 3250) as pre-reqs. These three must include at least one of 3030/3150 and at least one of 3100/3250.

Culminating Design Experience
Include at least two distinct Foundation Courses as pre-reqs.
Choose any two (2) of the following:
- ECE 4250
- ECE 4740
- ECE 4370
- ECE 4750
- ECE 4530
- ECE 4760
- ECE 4670

See prereq chart on back.

Breadth & Depth
Choose two (2) courses at ECE 4XXX+
1. ______________________
2. ______________________
3. ______________________
See rules on back.

Other ECE Technical Upper-Electives
Choose three (3) course at ECE 3XXX+
1. ______________________
2. ______________________
3. ______________________
See rules on back.

Upon affiliation:
- Complete curriculum chart
- Meet with advisor

Senior Year - First Semester:
- Update curriculum chart with advisor
- Submit graduation checklist by semester’s end

Senior Year - Second Semester:
- Complete exit requirements

Exit Requirements:
- Submit grades for Incompletes
- Be sure AP and transfer credits are included on your transcript
- Complete all ECE requirements with a C- or better.
- Complete graduation checklist by 7th week of final semester and review with advisor
- Complete an exit survey

College Core requirements are also necessary for degree completion.
See www.engineering.cornell.edu/academics/undergraduate/curriculum/handbook.
### Culminating Design Experience Prerequisites and Comments

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<thead>
<tr>
<th>Course</th>
<th>Prerequisite(s)</th>
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<tbody>
<tr>
<td>ECE 4250</td>
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### Rules Governing ECE Technical Upper-Level Electives

Include at least two of the following courses as prerequisites: ECE 3030 or 3150, ECE 3100 or 3250, ECE 3140/CS 3420, or CS 3410.

Cross-listed courses with ECE course numbers are acceptable. 4996 non-technical upper-level courses are acceptable (note: ECE 5830 counts as an Outside ECE Technical Elective).

<table>
<thead>
<tr>
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<tr>
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<td>CS 3420</td>
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<td>ECE 3030</td>
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Unacceptable courses include independent studies such as ECE 4999 and seminar courses such as ECE 5870 and 5880.