Electrical Engineering Computer Option Alternative Course Plan Pre-Professional School 2004-2005

Semester 1
12 SCH, 36 hours/week

MATH 2144 — Calculus I — 4/0, Note 8 → MATH2153, ENSC2113

PHYS 2014 — General Physics I — 3/2, Note 8 → PHYS2114, ENSC2113

ENGR 1111 — Intro to Engr — 1/0

CS 1113 — Comp. Science I — 3/0 → CS2133

Semester 2
13 SCH, 39 hours/week

MATH 2153 — Calculus II — 3/0 (MATH2144) → MATH2233, MATH2163, MATH3013, ENSC2613, IEM3503

PHYS 2114 — General Physics II — 3/2 (PHYS2014) → PHYS3313, ENSC2613, ECEN2011

ENGL 1113 — Freshman Comp I — 3/0, Note 2 → ENGL3323

CS 2133 — Comp. Science II — 3/0, Note 4 (CS1113)

Semester 3
15 SCH, 45 hours/week

MATH 2163 — Calculus III — 3/0 (MATH2153) → ECEN3613

CHEM 1414 — General Chemistry — 3/2, Note 1

ENGR 1342 — Engr Design/CAD — 1/2

ECEN 3233 — Digital Logic Des — 2/2 → ECEN4213, ECEN4243, ECEN4013, ECEN4303

POLS 1113 — American Gov't — 3/0

Semester 4
13 SCH, 39 hours/week

MATH 2233 — Diff Equations — 3/0 (MATH2153) → ECEN3713, ECEN3613

PHYS 3313 — Modern Physics — 3/0 (PHYS2114) → ECEN3913

ENSC 2613 — Electrical Science — 3/0, Note 8 (PHYS2114, MATH2153) → ECEN3713, ECEN3021

ECEN 2011 — Exp Methods I — 0/2, Note 8 (PHYS2114) → ECEN3021, ECEN3313

ENSC 2113 — Statics — 3/0 (PHYS2014, MATH2144) → ENSC2123

Semester 5
13 SCH, 39 hours/week

MATH 3013 — Linear Algebra — 3/0, Note 8 (MATH2153) → ECEN3723

ECEN 3713 — Network Analysis — 3/0, Note 8 (ENSC2613, MATH2233) → ECEN3031, ECEN3313, ECEN3613, ECEN3723

ECEN 3021 — Exp Methods II — 0/2, Note 8 (ENSC2613, ECEN2011) → ECEN3031, ECEN3113

ENSC 2123 — Dynamics — 3/0 (ENSC2113) → ECEN3723

ECEN 3213 — Microcomp. Prin. — 3/2 → ECEN4213, ECEN4243

Course Number
Course Name
Lecture/Lab, See Note #
Prerequisites*
Must pass to take these courses

*Only the last prerequisite in a sequence is listed. All earlier prerequisites must also be satisfied before taking the course.

OSU Requirement | CEAT Requirement | ECEN Requirement | Elective

Alternative Suggested Course Plan

The anticipation at OSU and most institutions of higher education is that for *one* student credit hour (SCH) the student spends one hour per week in lecture (two for lab courses) and two hours studying outside of class (one for lab courses). A three credit hour class requires, on average, nine hours per week. This study plan is recommended for students who plan to work more than ten hours per week while enrolled, wish to participate in time-intensive extracurricular activities, who have a college GPA below 3.0, or who have obligations which take more than ten hours per week.

NOTES:

1) Chemistry 1515 may be substituted for CHEM 1414 and should be taken by all students considering medical school.
2) Students with less than a "B" in ENGL 1113 or 1313 must take ENGL 1213 or 1413 prior to ENGL 3323.
3) A total of at least 6 hours designated "H" and 6 hours designated "S" are required. Of these, 3 hrs must meet the International Dimension "I". Consult the College approved list for courses that qualify.
4) CS 2432 and 2351 may be taken instead of CS 2133.
5) Must follow Area of Specialization requirements.
6) Must be approved by ECEN advisor.
7) Must be at least 3 SCH.
8) Line indicates this course has a co-requisite and must be taken with other courses.

Electrical Engineering Computer Option Alternative Course Plan Professional School*
2004-2005

Semester 6
13 SCH, 39 hours/week

HIST 1103
American History
3/0

ECEN 3723
Dyn Systems I
3/0
Prereq: ENSC2123, MATH3013, ECEN3713
Coreq: ECEN3513

ECEN 3031
Exp Methods III
0/2
Prereq: ECEN3021, ECEN3713
Coreq: ECEN4013

ECEN 3313
Electr Dev & Appl
3/0
Prereq: ECEN2011, ECEN3713
Coreq: ECEN3913, ECEN4013, ECEN4303

ECEN 3613
Electromag Fields
3/0
Prereq: ECEN3713, MATH2163, MATH2233
Coreq: ECEN3113, ECEN3913

Semester 7
12 SCH, 36 hours/week

IEM 3503
Engr Economics
3/0
Prereq: MATH2153

ECEN 3513
Signal Analysis
3/0
Prereq: ECEN3723
Coreq: ECEN4503, ECEN4013

ECEN 3913
Solid State Devices
3/0
Prereq: ECEN3313, ECEN3613, PHYS3313

"S/I" Elective
Note 3,7

Semester 8
15 SCH, 45 hours/week

ECEN 4303
Comp. Sys. Des.
2/2
Prereq: ECEN3233, ECEN3313

ECEN 4503
Random Signals
3/0
Prereq: ECEN3513

ECEN 3113
Energy Conversion
2/2
Prereq: ECEN3021, ECEN3613

ENGL 3323
Technical Writing
3/0
Prereq: ENGL1113
Coreq: ECEN4013

"H" Elective
Note 3,7

Semester 9
15 SCH, 45 hours/week

ECEN 4013
Senior Design I
1/4
Prereq: ECEN3513, ECEN3313, ECEN3233, ECEN3031, ENGL3323
Coreq: ECEN4023

ECEN Elective (3)
Note 5,7
Prereq: VARIES

ECEN 4213
Dig. Circ.. Des.
2/2
Prereq: ECEN3213, CS2113

"S" Elective
Note 3,7

ECEN Elective (3)
Note 5,7
Prereq: VARIES

Semester 10
12 SCH, 36 hours/week

ECEN 4023
Senior Design II
0/6
Prereq: ECEN4013

ECEN 4243
Comp. Arch.
3/0
Prereq: ECEN3213, ECEN3233

Tech Elective (3)
Note 6,7

"H" Elective
Note 3,7

*** Professional School Entry Requirements:**

- Completion of at least 60 college level semester credit hours (SCH).
- Completion of at least 12 SCH from OSU.
- Completion of MATH 2144, 2153, 2163, 2233, 3013; PHYS 2014 and 2114; CHEM 1414; ENGR 1111, 1342; ENSC 2113, 2123, 2613, ECEN 3713, 3021; ENGL 1113 or 1313.
- An overall GPA of 2.6 or better at OSU.
- A GPA of 2.7, or better, in all of the college-level math, science and engineering courses required for the B.S. in Electrical Engineering.

No prerequisites, not prerequisite for another class

Has prerequisites, is prerequisite for another class

No prerequisites, is prerequisite for another class

Has prerequisites, not prerequisite for another class