

ELECTRICAL ENGINEERING MAJOR (2008-2009)

INTELLECTUAL FOUNDATIONS PROGRAM and FOREIGN LANGUAGE REQUIREMENTS

All course selections should be made in consultation with an advisor.

ENGLISH COMPOSITION (6 credits, two courses, **MUST EARN "C" OR BETTER**)

- ENC 1101 College Writing 1 (**Gordon Rule Writing**) (3 credits)
- ENC 1102 College Writing 2 (**Gordon Rule Writing**) (3 credits) (ENC 1101 is a prereq)

MATHEMATICS (12 credits minimum, three courses) (**Gordon Rule, MUST EARN "C" OR BETTER**)

MUST TAKE A PLACEMENT TEST BEFORE REGISTERING FOR MATH COURSES.

(Recommended if not ready for MAC 2253- Credits do not count towards degree) MAC 1105 College Algebra, MAC 1140 Precalculus Algebra and/or MAC 1114 Trigonometry (3 credits each) or MAC 1147 Precalculus Algebra and Trig. (5 credits)

- MAC 2253** Calculus for Engineers 1 (4 credits) - **REQUIRED.**
- MAC 2254** Calculus for Engineers 2 (4 credits) - **REQUIRED**
- MAC 2313** Calculus with Analytic Geometry 3 (4 credits) - **REQUIRED**

SOCIAL SCIENCES (9 credits, 3 courses, from 3 different departments) ♦

- ANT 2000 (D) Introduction to Anthropology (3 credits)
- or ANT 2410 Culture and Society (3 credits)
- GEA 2000 (D) World Geography (3 credits)
- ECO 2023 Microeconomic Principles -Recommended (**Sophomore standing is a prerequisite**) (3 credits)
- or ECO 2013 Macroeconomic Principles -Recommended (**Sophomore standing is a prerequisite**) (3 credits)
- or ECP 2002 Contemporary Economic Issues (3 credits)
- PAD 2258 Changing Environment of Society, Business and Government (3 credits)
- POS 1041 The Government of the United States (3 credits)
- or INR 2002 Introduction to World Politics (3 credits)
- PSY 1012 General Psychology (3 credits)
- SYG 1000 Introductory Sociology (3 credits)
- or SYG 2010 Social Problems (3 credits)

HUMANITIES (9 credits, three courses) **Choose ONE from the following six courses.**

- ARC 2208 Culture and Architecture: The Master Builder (3 credits)
- ARH 2000 Art Appreciation (3 credits) (**Engineering majors cannot take this course for P/F**)
- DAN 2100 Appreciation of Dance (3 credits)
- FIL 2000 (D) Film Appreciation (3 credits)
- MUL 2010 History and Appreciation of Music (3 credits)
- THE 2000 Appreciation of Theater (3 credits)

AND Choose **TWO** courses from the following from **two different departments** ♦

- LIT 2010 Interpretation of Fiction (Gordon Rule Writing) (3 credits, C or better) **prereq: ENC 1101 & 1102**
- or LIT 2030 Interpretation of Poetry (Gordon Rule Writing) (3 credits, C or better) **prereq: ENC 1101 & 1102**
- or LIT 2040 Interpretation of Drama (Gordon Rule Writing) (3 credits, C or better) **prereq: ENC 1101 & 1102**
- PHI 2010 (D) Introduction Philosophy (Gordon Rule Writing) (3 credits, C or better) **prereq: ENC 1101 & 1102**
- WOH 2012 (D) History of Civilization (Gordon Rule Writing) (3 credits, C or better) **prereq: ENC 1101**

SCIENCE (12 credits minimum from two or more departments, at least three courses with labs)

CHEMISTRY

CHM 2045 & L General Chemistry 1 (with lab 4 credits)

PHYSICS (MUST EARN "C" OR BETTER IN BOTH THE PHYSICS COURSES)

PHY 2043 & PHY 2048 L Physics for Engineers I (3 credits) & General Physics I lab (1 credit)

(MAC 2253 is prerequisite)

PHY 2044 & PHY 2049 L Physics for Engineers II (3 credits) & General Physics II lab (1 credit)

FOREIGN LANGUAGE - NONE REQUIRED, but must meet Foreign Language **ADMISSION Requirement - see catalog**

NOTE: Native speakers of a foreign language must consult the language and linguistics dept. Regarding this requirement.

♦ *NOTE: Honors Seminars SHALL BE ACCEPTED AS MEETING THE GORDON RULE WRITING REQUIREMENT.*

See the Freshman Academic Advising Services for details.

(D) = Discussion. Must register and attend both lecture & discussion section.

MAJOR COURSES AND IN/OUT OF COLLEGE REQUIREMENTS

NON-MAJOR, IN AND OUT OF COLLEGE REQUIREMENTS (12 credits, 4 courses)

Other Core (3 credits, one course)

EGN 1002 Fundamentals of Engineering (should be taken within the first two semester)

Math & Computer Programming Core (6 credits, 2 courses)

EEL 2161 C for Engineers (3 credits)

MAP 3305 Engineering Math 1 (3 credits) *prereq* - MAC 2254

Math elective (3 credits, one course) - MUST BE APPROVED BY ADVISOR

MAA/MAD/MAP/MAS An approved mathematics course, 3000 level or higher, not previously taken (3 credits)

ELECTRICAL ENGINEERING (68 credits minimum)

Major Core (50 credits, 18 courses, **MUST EARN "C" OR BETTER IN ALL COURSES**)

CDA 3201C Introduction to Logic Design (4 credits)

EEL 4746 & EEL 4746L Introduction to Microcontrollers & Lab (4 credits)

EEL 3111 Circuits I - *coreq* - MAP 3305, MAC 2254 & PHY 2044 (3 credits)

EEL 3112 Circuits II - *prereq* - EEL 3111 (3 credits)

EEL 3300 Electronics I - *prereq* - EEL 3111 (4 credits)

ELR 3308 L Laboratory I - *coreq* - EEL 3300 (2 credits)

EEL 4361 Electronics II - *prereq* - EEL 3300 (3 credits)

EEL 3470 Electromagnetic Fields and Waves - *prereq* - EEL 3111 (4 credits)

EEL 4656 Analysis of Linear Systems - *prereq* - EEL 3112 (3 credits)

EEL 4541 Stochastic processes and Random Signals - *prereq* - EEL 4656 (3 credits)

ELR 4309L Laboratory II - *prereqs* - ELR 3308L, EEL 4361, 4656 & 3470 (3 credits)

EEL 4652 Control Systems I - *prereq* - EEL 3112 (3 cr)

EEL 4510 Introduction to DSP - *prereq* - EEL 4656 (3 cr)

EEL 4512 Communication Systems - *prereq* - EEL 4656 (3 cr)

EEL 4652L or 4512L Control Lab or Communications Lab - *prereq* - EEL 4652 or EEL 4512 (1 credit)

EGN 4410C Engineering Design I - *coreq* - ELR 4309L (3 credits)

EGN 4411C Engineering Design II - *prereq* - EGN 4410C (3 credits)

EEL 3012 Electrical Engineering Practice (1 credit)

EE Electives (9 credits, 3 courses)

___ Electrical Engineering courses should be selected in consultation with Advisor.

Technical Electives or EE Electives (6 credits minimum, 2 courses)

Technical courses can be chosen from Electrical Engineering, Mechanical Engineering, Ocean Engineering, Mathematics, Computer Engineering, Computer Science and other sciences. *Courses must be approved by Advisor.* EEL 4949, Co-operative Education Electrical Engineering credits, 1 to a maximum of 3 credits may be used to satisfy technical elective requirement. *Co-Op Ed EE credits must be approved by Advisor and Co-Op Coordinator.*

48 credits	Intellectual Foundations Program, Foreign Language, and Science Requirements
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12 credits	In and Out of College Requirements
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68 credits	<u>Electrical Engineering Major Core & Electives</u>
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128 CREDITS	TOTAL
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CLAST: Satisfy the College Level Academic Skills Test (CLAST) - see catalog or check with your advisor.

NOTE: See the catalog for specific requirements, course descriptions and additional information. The requirements for some Intellectual Foundations Program & other courses may be satisfied by passing the appropriate AP or CLEP exam. Check with your advisor and college.

Electrical Engineering majors are required **(1) get a C or better in core curriculum Math and Physics courses,**
(2) obtain a C or better in each EE Major core course. No course toward degree credit may be taken pass/fail.

All course selections should be made in consultation with an advisor.

STUDENTS ASSUME ALL RESPONSIBILITY FOR MEETING ALL GRADUATION REQUIREMENTS.

(5/08)