

COMPUTER ENGINEERING MAJOR (2008 - 2009)

INTELLECTUAL FOUNDATIONS PROGRAM AND FOREIGN LANGUAGE REQUIREMENTS AND ELECTIVES

ENGLISH COMPOSITION (6 credits, two courses, **must get a C or better**)

ENC 1101	College Writing 1 (Gordon Rule Writing) (3 credits)
ENC 1102	College Writing 2 (Gordon Rule Writing) (3 credits)

MATHEMATICS (12 credits, three courses) (Gordon Rule, **must get a C or better**) Calculus requires a solid background in algebra and trigonometry. This background, if not attained in high school, can be attained at FAU by taking College Algebra (MAC 1105), Trigonometry (MAC 1114) and Pre-calculus Algebra (MAC 1140) or Pre-calculus Algebra and Trigonometry (MAC 1147). **MUST TAKE A PLACEMENT TEST BEFORE REGISTERING FOR MATH COURSES.**

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)

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

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

ARC 2208	Culture and Architecture: Master Builder (3 credits)
ARH 2000	Art Appreciation (3 credits) (Cannot take for P/F for Computer Engineering major)
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 **two different departments**.

(Note: ENC 1101 & 1102 are prereqs for PHI 2010 & LIT courses. ENC 1101 is a prereq for WOH 2012)

	WOH 2012 (D)	History of Civilization (Gordon Rule Writing, C or better) (3 credits)
	PHI 2010 (D)	Introduction to Philosophy (Gordon Rule Writing, C or better) (3 credits)
	LIT 2010	Interpretation of Fiction (Gordon Rule Writing, C or better) (3 credits)
OR	LIT 2030	Interpretation of Poetry (Gordon Rule Writing, C or better) (3 credits)
OR	LIT 2040	Interpretation of Drama (Gordon Rule Writing, C or better) (3 credits)

SCIENCE (12 credits from two departments, ALL 3 courses required)

CHEMISTRY (C or better required)

CHM 2045&L	General Chemistry I w/lab (4 credits)
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PHYSICS (C or better required)

PHY 2043 & PHY 2048 L	Physics for Engineers I (3 credits) & General Physics I lab (1 credit)
	(MAC 2253 is prereq. & MAC 2254 is recommended as coreq.)
PHY 2044 & PHY 2049 L	Physics for Engineers II (3 credits) & General Physics II lab (1 credit)
	(MAC 2254 is prereq)

FOREIGN LANGUAGE - NONE REQUIRED, but **must meet Foreign Language ADMISSION REQUIREMENT - see catalog**. For questions related to this requirement, consult an academic advisor.

CLAST: Satisfy the College Level Academic Skills Test (CLAST). See catalog.

♦NOTE: Honors Seminars SHALL BE ACCEPTED AS MEETING THE GORDON RULE WRITING REQUIREMENT. See the Freshman Academic Advising Services for details.

D = Course has discussion section. Must register and attend both lecture and discussion.

MAJOR COURSES AND IN/OUT OF COLLEGE REQUIREMENTS

NON-MAJOR, IN AND OUT OF COLLEGE REQUIREMENTS (15 credits, 5 courses, must get a “C” or better in each course)

Math Core (3 credits, 1 course)

MAP 3305 Engineering Mathematics 1 (3 credits -- **MAC 2254 is a prereq**)

OR MAP 2302 Differential Equations (3 credits -- **MAC 2254 is prereq**)

Engineering Core (12 credits, 4 courses)

EEL 3111 Circuits I (3 credits -- **MAP 3305 is a coreq.; PHY 2044 is a prereq.**)

EEL 3300 Electronics I (4 credits -- **EEL 3311 is a prerequisite**)

ELR 3308L Laboratory I (2 credits -- **EEL 3300 is a corequisite**)

EEL 4340 Digital Electronics (3 credits -- **EEL 3300 is a prerequisite**)

COMPUTER ENGINEERING (50 credits minimum, 17 or more courses, must get a “C” or better in each course & 2.5 GPA in all courses except EGN 1002 and COP 2220)

MAJOR CORE (35 credits, 12 courses) **ALL REQUIRED**

EGN 1002 Fundamentals of Engineering (3 cr.)(to be taken 1st or 2nd semester) **Must get “C” or better**

COP 2220 Intro.to Prog. in C (3 credits -- **MAC 2253 is recommended as coreq.**) **Must get “C” or better**

CDA 3201C Introduction to Logic Design (4 credits -- **COP 2220 is prereq or corequisite**)

COT 3002 & L Foundations of Computer Science & Lab (4 credits -- **COP 2220 is prerequisite**)

MAD 2104 Discrete Mathematics (3 credits -- **MAC 2253 is recommended**)

CDA 3331C Introduction to Microprocessor Systems (4 credits -- **CDA 3201 is prerequisite**)

COP 3530 Data Structures and Algorithm Analysis (3 credits -- **COT 3002 is a prereq & MAD 2104 is coreq.**)

COP 4610 Computer Operating Systems (3 credits -- **CDA 3331 & COP 3530 are prerequisites.**)

COT 4935 Senior Seminar (1 credit -- **senior standing is required**)

EGN 4410 Engineering Design I (2 credit – **CDA 3331C & EEL 3300 are prereqs; senior standing is required**)

EGN 4411 Engineering Design II (2 credits -- **EGN 4410 is prerequisite**)

STA 4821 Stochastic Models for Computer Science (3 credits -- **MAC 2254 is prerequisite**)

CEN 4010 Principles of Software Engineering (3 credits -- **COP 3530 is prerequisite**)

SYSTEMS GROUP -- Choose **TWO** of the following (6 credits):

CEN 4400 Intro to Computer Systems Performance Evaluation (3 credits – **COT 3002, STA 4821 are prereqs**)

CDA 4105 Structured Computer Architecture (3 credits -- **CDA 3201 is prerequisite**)

CDA 4630 Intro to Embedded System Design (3 credits – **CDA 3201 is prereq, CDA 3331C is corequisite**)

COT 4930 Concurrency Modeling (3 credits – **CDA 3201 is prereq, CDA 3331C is corequisite**)

TECHNOLOGY GROUP – Choose **TWO** of the following (6 credits):

CDA 4210 Introduction to VLSI (3 credits -- **CDA 3201 & EEL 3300 are prerequisites**)

CDA 4204 Cad-based Computer Design (3 credits – **CDA 3201C is prereq, CDA 3331C is corequisite**)

CDA 4504 Introduction to Data Communications (3 credits -- **COP 3530 & CDA 3331C are prerequisites**)

COP 4364 Computer Network Projects (3 credits – **COP 3530 is prerequisite**)

TECHNICAL ELECTIVES -- (12 credits, 4 or more courses, a grade of “C” or better required in each course) Consult with an advisor for appropriate courses . Departmentally approved technical electives, selected in conjunction with your advisor. Courses are normally chosen from Computer Engineering, and Computer Science.

48 credits	Intellectual Foundations Program, Foreign Language and Out of College Requirements
15 credits	In and Out of College Requirements
12 credits	Technical Electives
50 credits	<u>Computer Engineering Major core</u>
125 CREDITS	TOTAL

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.

Computer Engineering majors have specific **GPA requirements** regarding math, science and major courses, check with department for specific information. No major course can be taken pass/fail.

Three semesters of Cooperative Education, (1 credit each) may substitute for 3 credits of Technical Elective.

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

STUDENTS ASSUME ALL RESPONSIBILITY FOR MEETING ALL GRADUATION REQUIREMENTS. (5/08)