

Department of Electrical and Computer Engineering

BSE.CMPE Degree

Student Number _____

Student Name: _____ Email _____

2012-13 timetable

Started 2012-13

YEAR 1		YEAR 2		YEAR 3		YEAR 4	
TERM 1	TERM 2	TERM 3	TERM 4	TERM 5	TERM 6	TERM 7	TERM 8
MATH1003 Intro to Calculus I (4-0-0) PR- none	MATH1013 Intro to Calculus II (4-0-0) PR- Math 1003	MATH2513 Multivariable Calculus (4-0-0) PR- Math 1013 & 1503	MATH3503 Differential Equations (3-1-0) PR- MATH1503 or MATH2213	ECE3111 Electronics I (3-1-3*) PR-EE2711 or EE 2773	ECE3122 Electronics II (3-1-3*) PR-EE2722 or EE 2783, EE3111 or EE3121	ECE4040 Design Project (0-0-6) 0 PR- EE 3111, EE 3312, CMPE/ECE 2412, CMPE/ECE 3232, CS 1023 or CS 1083, one of EE 3511/ EE 3821/ CMPE/ECE 3242/ CMPE/ECE 3812	
MWF 9:30 (1a-4a) Tut - T 8:30-9:20	MWF 11:30 (1b-8b) 1b, 2b, 5b, 6b Tut-T 8:30 2b, 3b, 5b, 6b, 8b, 9b Tut-Th 8:30	*1a- MWF 9:30 + T 11:30 2a - MTWF 11:30*	1b- MWF 8:30 Tut T 8:30	MWF 1:30 Tut Th 10:30 1a Lab W 2:30 2a Lab Th 2:30	MWF 1:30 Tut T 1:30 1b Lab M 2:30 2a Lab T 2:30	Th 8:30 - 9:50 T Th 8:30 - 9:50	
MATH1503 Linear Algebra (3-1-3) PR- none	ECE1813 Electricity & Magnetism (3-1-2*) PR- MATH 1003	CHE2501 General Materials Science (3-0-0) PR- CHEM1982/1987, MATH1013	STAT2593 Probability & Statistics (3-0-0) PR- MATH 1013	ECE3821 Electromagnetics 1 (3-1-3*) PR- MATH3503, MATH2513, EE2711 or EE2773	ECE3312 Systems and Control (3-1-3*) PR-EE2722 or EE 2783, MATH 3503, APSC 1023	ECE4251 Real Time Systems (3-0-2*) PR-CMPE/ECE3232	ME3232 or CE3963 Eng Economics (3-0-0)
MWF 11:30-12:20 (1a-12a) Tut T 8:30 1,2,5,6,9,10,14 Tut Th 8:30= 3,4,7,8,11,12,13	WI2012 - MWF 10:30 - 11:20 1b, 2b Tut T 8:30 Lab Th 2:30 3b, 4b Tut Tu 8:30 FA2011 - MWF 8:30 1a- Tut-Tu 9:30, Lab M 2:30	FA 2012 T Th 8:30	1b - MWF 9:30 - 10:20 2b - T Th 10:00 - 11:20	MWF 10:30 Tut Th 1:30 Lab T 12:30 - 1:50	MWF 11:30 Tut T 10:30 1b Lab T 2:30 2b Lab Th 2:30	WI-13 - MWF 11:30 Labs 2:30 - 5:20	
CS1003 Problem Solving and Programming (3-1-2) PR- none	CS1023 Data Structures and Algorithms (3-1-2) PR-CS1003	CHE2506 General Materials Lab (sect 1 - 4) (0-0-1) PR- CHEM1982/1987, MATH1013	BAS SCI	ECE3511 Signals (3-1-3*) PR-EE2722 or EE2783, MATH 3503	ECE3232 Embedded Systems Design (3-0-2*) PR- CMPE/ECE3221	ECE4261 Digital System Design (3-0-3*) PR-CMPE/ECE3232	ENGG4013 Law & Ethics for Engineers (3-0-0) PR- ≥ 100Ch
MWF 1:30 (1a/2a) 1a Lab T 2:30 Tut M 12:20 2a Lab M-7pm Tut M 12:30		FA 2012 T Th 8:30		MWF 9:30 Tut T 10:30 1a Lab W 2:30 2a Lab T 2:30	MWF 12:30- 1:20 1b Lab W 2:30 2b Lab Th 2:30	FA-12 - MWF 9:30 - 10:20 Lab 1b - M 2:30 - 5:20	
PHYS1081 Foundations of Physics for Engineers PR- none	ENGG1082 Mechanics for Engineers PR- none	ECE2711 Electric Circuits (3-1-3*) PR-MATH 1003, EE1813	ECE2722 Circuits & Systems (3-1-3*) PR-EE2711, MATH 1503	ECE3221 Computer Organization (3-1-3*) PR-CMPE/ECE2213, CS1023 or CS1073 or CS2023	ECE3242 Computer Architecture (3-0-3*) PR- CMPE/ECE3221,	TE	TE
MWF 10:30	MWF 1:30-2:20 Labs 2:30 1b-M, 2b-T, 3b-W	MWF 1:30 Tut Th 1:30 1a Lab Th 2:30 2a Lab F 2:30	MWF 12:30 Tut Th 11:30 1b Lab- M 2:30 2b Lab- T 2:30	MWF 8:30 Tut T 9:30 1a Lab T 2:30 2a Lab F 2:30	MWF 9:30-10:20 11b Lab F 2:30		
ENGG1003 Technical Communication (2-0-3) PR- none	CHEM1982 Gen Chemistry Physical & Inorganic (3-1-3) PR- none	ECE2213 Digital Systems (3-0-2*) PR-CS1003	ECE 2412 Simulation & Analysis (3-0-3*) PR- CS1003, EE 1813, MATH 1013, MATH 1503	CS2033 Software Design for Engineers (3-1-2*) PR- CS1023, CMPE/ECE 2412	ECE3812 Data Comm and Network (3-0-3*) PR- CMPE/ECE3221	TE	TE
T Th 10:30-11:20 Labs 2:30-5:20 1a/7a-M, 2a-Tu, 3a/6a-W, 4a/9a-Th, 5a/8a-F	MWF 8:30-9:20 Tut - W 7:pm-8:50	MWF 11:30, Tut Th 11:30 1a Lab M 2:30 2a Lab T 2:30	MWF 10:30 Labs Th 1:00-2:30	MWF 12:30 Labs Th 2:30	MWF 9:30 - 10:20 Labs 1b - W 2:30 - 5:20 2b - F 2:30 - 5:20		
ENGG1015 Intro to Eng Design & Problem Solving (1-0-2) PR- none	CHEM1987 Gen Chemistry Lab (0-0-2) PR- none	CSE A- HSS Tech & Society (0-0-2)	CSE B- HSS Non Language (0-0-2)			CSE C	TME 3313 Managing Engg & Inform. Tech Projects 80 ch of approved courses Permission of the program chair
Th 11:30 Lab Th 2:30 (1a, 2a, 3a, 8a) Th 11:30 Lab F 2:30 (4a, 5a, 6a, 7a, 9a)	Labs 1b-M 2:30, 2b T 9:30, 3b T 2:30, 4b W 2:30, 5b Th 9:30, 6b Th 2:30	HIST3975- FA12 MWF 2:30 SOCI2533- FA12 T Th 1:00 STS1003A- FA11-MWF 1:30-2:20 STS1003C- WI12 MWF 10:30-11:20				FA 12 - 1a M 6:30-9:20 FA 12 - 2a Open Access WI 13 - Tu 6:30 - 9:20	
ENGG1001 Eng Practice Lecturing Series (1-0-0) PR- none	Please print your transcript, and fill in your matrix before your advising appointment. This matrix is designed to help you track your progress. Please ensure the grades are accurately posted. SPECIAL NOTE: Degree Requirements: - D's are excluded in the credit hour count.						

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SPECIAL NOTE: Degree Requirements: - 163 CHs (D's excluded) & - completion of courses in matrix

Total

163

Recommended Program

The program has been designed to be completed in eight study terms. The General Regulations of the Faculty of Engineering, including minimum credit hour requirements that are listed under Bachelor of Science in Engineering, apply to the Computer Engineering program.

Electives

In addition to the core courses there is also a requirement to complete:
four technical elective courses - TE's (normally 16 ch); four complementary studies electives - CSE's (minimum of 12 ch);
and one Science Elective - basic science (minimum 3ch).

Basic Science Elective

Basic Science Elective = Each student is required to take one 3 ch basic science course chosen from Physics, Chemistry, and the life or earth sciences.

Examples: BIOL1001, BIOL1006, BIOL1621, CHEM2401, CHEM2421, CHEM2601, ESCI1001, ESCI1012, ESCI1063, GEOL1001

other courses may qualify, please seek department approval prior to registration.

Complementary Studies Electives (CSE's)

The CMPE program requires 9 credit hours of Complementary Studies electives. The choice of courses is subject to the Faculty of Engineering regulations for Complementary Studies Electives and the following:

CSE A-	CSE B-	CSE C -
An additional 3 ch must be an HSS related to technology and society (examples: HIST 3925 Technology and Society, SOCI 2534 Technology and Social Change). Preapproved courses:	A minimum of 3 ch of non-language Humanities and Social Sciences (HSS) courses is required from the following:	The remaining 3 ch may be taken from: Administration, Technology Management and Entrepreneurship (TME) or the Humanities and Social Sciences.
HIST 3925 Technology and Society, not offered 2012-13 HIST 3975 History of Life Sciences FA12 - MWF 2:30-3:20 SOCI 2533 Information Society FA T&Th 1:00-2:20 STS1003A - FA 12- MWF 1:30-2:20 STS1003C - WI 13- MWF 10:30-11:20	Anthropology, Classics, Literature, History, Philosophy, Political Science and Sociology	ADM, ANTH, BA, CHNS, CLAS, ECON, ENGL, ENVS, FVI, FILM, FNAT, FR, FR/LING, GEND, GEOG, GER, GRK, HIST, HUM, HTM, ICS, IDS, IS, JPNS, LAT, LING, LING/FR, PHIL, POLS, PHYS, RCLP, RUSS, SOCI, SPAN, TME, WMS, WLCS

Technical Elective Courses (TE's)

Each student is required to take four technical elective courses (minimum of 16 ch).

At least one of the electives must be from this list: ECE4273, ECE4433, ECE 4823, ECE4833, and ECE 4913

ECE 4273	VLSI System Design (replacing CMPE 4273)	ECE 4523	Communications Systems
ECE 4433	Safety Critical System Design (replacing CMPE 4433)	ECE 4531	Digital Signal Processing I
ECE 4823	Communications Network Engineering (replacing CMPE 4823)	ECE 4542	Digital Signal Processing II
ECE 4253	Digital Communications (replacing CMPE 4283)	ECE 4843	Optical Fiber Communications
ECE 4943	Topics in Computer Engineering (replacing CMPE 4913)	ECE 4913	Independent Project
ECE 3612	Electric Machines	ECE 4923	Introduction to Biomedical Engineering
ECE 3832	Electromagnetics II	SWE4103	Software Quality and Project Management
ECE 4133	Instrumentation Design	SWE 4203	Software Evolution and Maintenance
ECE 4143	Delectronic Circuit Design	SWE 4303	Performance Analysis of Computer Systems
ECE 4323	Industrial Control Systems	SWE 4403	Software Architecture and Design Patterns
ECE 4333	Robotics		

Students are encouraged to take combinations of electives which will permit some degree of specialization in one or more of the major fields of Computer Engineering. Two of the technical electives may be taken in another discipline subject to Department pre-approval. For instance, a number of 3000 and 4000 level courses in Math, Science, Computer Science and other Engineering Disciplines are eligible.