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UNIVERSITY OF HOUSTON
COLLEGE OF TECHNOLOGY
ENGINEERING TECHNOLOGY DEPARTMENT

APPROVED FEB 24 2010
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MEMORANDUM

RECEIVED OCT 15 2009
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TO: University Undergraduate Council

FROM: Dr. Heidar Malki 
Chair, Engineering Technology Department

DATE: October 5, 2009

RE: Changes to Computer Engineering Technology Degree Plan

Computer Engineering Technology: CETE is submitting a curriculum change. This is in response to the state mandated 120 credit hours. ABET, the accrediting body for CETE, specifies a minimum of 124 credit hours. The curriculum submitted for approval drops the number of required credits from 126 to 124. This was accomplished by moving TELS 3363 - Technical Communication from departmental/college requirements to university core requirements as it has been submitted for approval as a "Writing in the Discipline" course. This drops the number of hours from 126 to 123. MEET 4188 - Ethics in Engineering Technology is added to bring the total credits required to 124. In addition the department is submitting four prerequisite changes that will have no effect on the degree plan.

	Subject	Course #	Name of Course	Reason for change
1	ELET	3403	Sensors and Applications	Change in prerequisite course
2	ELET	3425	Embedded Systems	Change in prerequisite course
3	ELET	2303	Digital Systems	Change in prerequisite course
4	ELET	4308	Senior Project	Change in prerequisite course

Computer Engineering Technology Major

The goal of the Computer Engineering Technology program is to provide students with a high quality applications-oriented undergraduate education based on state-of-the-art technology as a preparation for productive employment in the broad field of computer applications. This goal is achieved through several objectives such as continuing to update specific courses in the program to ensure relevance to the latest industrial changes, supporting the development of appropriate computer facilities, promoting the integration of advanced computer technology in all courses, and encouraging professional growth and development of the faculty. The program is designed to satisfy the educational needs of the urban Houston community by providing a climate that fosters self-awareness, personal growth, and a desire for life-long learning.

Computers are used to control processes in manufacturing, chemical production, and oil refining. They are used to route data and conversations in telephone communication; provide the best shipping, billing, routing, and inventory information for shipping and trucking; and passenger ticketing and routing information for airlines. Computers and appropriate software packages are also used to solve scientific and engineering problems, to aid in medical tests and diagnoses, and to help design structures and buildings.

With computers assisting nearly every professional and leisure activity of modern life, people who can design, install, configure, network, and maintain computer systems can make a valuable contribution to business and industry. People familiar with both the hardware and software requirements of computers are especially valuable.

Computer Engineering Technology majors study the application of state-of-the-art hardware and software in contemporary computer systems. Students are given a solid foundation in mathematics, basic sciences, and electronics. A thorough study is made of digital circuits and systems, and computer circuits and systems. Hardware and software aspects of computers are covered in detail. Graduates of Computer Engineering Technology are qualified for immediate employment in a variety of industries as sales representatives, field specialists, interface designers, software specialists, and digital applications specialists.

Majors in Computer Engineering Technology may use no grade below C- in junior and senior level ELET courses to satisfy major degree requirements.

Students pursuing the Computer Engineering Technology major must complete the following requirements, in addition to university core and general college requirements.

Computer Engineering Technology Major Requirements

ELET 1300, 1100. Electrical Circuits I, Laboratory
ELET 1301, 1101. Electrical Circuits II, Laboratory
ELET 2303, 2103. Digital Systems, Laboratory
ELET 2305, 2105. Semiconductor Devices and Circuits, Laboratory
ELET 3301. Linear Systems Analysis
ELET 3402. Communications Circuits
ELET 3403. Sensor Applications
ELET 3405. Microprocessor Architecture
ELET 3425. Embedded Systems
ELET 4308, 4208. Senior Project, Laboratory
ELET 4421. Computer Networks

PRE-APPROVED ELECTIVES.

Select 12 semester hours from the following:

ELET 4300. Unix Operating Systems
ELET 4302. Data Communication Systems
ELET 4309. Object-Oriented Applications Programming
ELET 4315. Telecommunications
ELET 4325. Advanced Microcomputer Networks
Approved ELET elective (3 advanced semester hours)

PROGRAM REQUIREMENTS

Mathematics (14 semester hours which includes university core)

Students will be expected to place out of MATH 1310 by either Math Placement Exam, CLEP, or have taken MATH 1310.

MATH 1330. Precalculus
MATH 1431. Calculus I
MATH 1432. Calculus II
TECH 3366. Applied Numerical Methods

Natural Sciences (8 semester hours which includes university core)

PHYS 1301, 1101. Introductory General Physics I and Lab
PHYS 1302, 1102. Introductory General Physics II and Lab

Social Sciences

(3 semester hours)

three semester hours selected from core approved list.

Writing in the Discipline

(3 semester hours)

~~TELS 3363. Technical Communications~~

Deleted: three semester hours selected from core approved list.

General Technology

CHEM 1301. Foundations of Chemistry

ELET 2300. Introduction to C++ Language Programming

TELS 3340. Organizational Leadership and Supervision

or

HDCS 3300. Organizational Decisions in Technology

~~MECT 4188: Ethics in Engineering Technology~~

MECT 3341. Computer-Aided Drafting I

or

approved MECT elective

Free electives: (3 semester hours)

Degree awarded: Bachelor of Science

Major: Computer Engineering Technology

Deleted: TELS 3363, Technical Communications

COMPUTER ENGINEERING TECHNOLOGY (CETE)

UNIVERSITY OF HOUSTON
COLLEGE OF TECHNOLOGY

ENGINEERING TECHNOLOGY
BACHELOR OF SCIENCE

NAME _____ SSN _____

UNIVERSITY CORE REQUIREMENTS (55 SH)

	GR	SH	AH
<u>Communication (6 SH)</u>			
ENGL 1303 English Composition I	_____	_____	_____
ENGL 1304 English Composition II	_____	_____	_____

<u>Writing In the Discipline* (3 SH)</u>			
TELS 3363 Technical Comm.	_____	_____	_____

<u>History/Government (12 SH)</u>			
HIST 1376 or 1377 US History to 1867	_____	_____	_____
HIST 1378 or 1379 US History since 1867	_____	_____	_____
POLS 1336 US & TX Const/Politics	_____	_____	_____
POLS 1337 US Government	_____	_____	_____

<u>Humanities* (3 SH)</u>			
_____	_____	_____	_____

<u>Visual/Performing Arts* (3 SH)</u>			
_____	_____	_____	_____

<u>Social/Behavioral Science* (3 SH)</u>			
_____	_____	_____	_____

<u>Math/Reasoning (14 SH)«</u>			
MATH 1330 Elem. Functions	_____	_____	_____
MATH 1431 Calculus I	_____	_____	_____
MATH 1432 Calculus II	_____	_____	_____
TECH 3366 Appl. Numerical Methods	_____	_____	_____

« Students will be expected to place out of MATH 1310 by either Math Placement Exam, CLEP or have taken MATH 1310.

<u>Natural Sciences (8 SH)</u>			
PHYS 1301/1101 Intro. Gen. Phys I & Lab	_____	_____	_____
PHYS 1302/1102 Intro. Gen. Phys II & Lab	_____	_____	_____

DEPARTMENTAL AND COLLEGE REQUIREMENTS

<u>General Technology and College Core (13 SH)</u>			
CHEM 1301 Foundations of Chemistry	_____	_____	_____
ELET 2300 Intro. C++ Programming	_____	_____	_____
TELS 3340 Org Leadership & Supervision	_____	_____	_____
<u>or</u> HDCS 3300 Orgnztnl Decisions in Tech.			
MECT 3341 Computer Aided Drafting	_____	_____	_____
<u>Or</u> Approved MECT elective			
MECT 4188 Ethics in Engineering Tech.	_____	_____	_____

Refer to class schedule for lists of courses which satisfy University requirements.

For graduation with Honors, see Undergraduate Catalog.

MAJOR REQUIREMENTS (44 SH)

	GR	SH	AH
ELET 1300 Electrical Ckts I	_____	_____	_____
ELET 1100 Electrical Ckts I Lab	_____	_____	_____
ELET 1301 Electrical Ckts II	_____	_____	_____
ELET 1101 Electrical Ckts II Lab	_____	_____	_____
ELET 2303 Digital Systems	_____	_____	_____
ELET 2103 Digital Systems Lab	_____	_____	_____
ELET 2305 Semiconductor Devices & Ckts	_____	_____	_____
ELET 2105 Semiconductor Dev & Ckts Lab	_____	_____	_____
ELET 3301 Linear Systems Analysis©	_____	_____	_____
ELET 3402 Communication Ckts. ©	_____	_____	_____
ELET 3403 Sensors Applications©	_____	_____	_____
ELET 3405 Microprocessor Arch©	_____	_____	_____
ELET 3425 Embedded Systems©	_____	_____	_____
ELET 4308 Senior Project©	_____	_____	_____
ELET 4208 Senior Project Lab©	_____	_____	_____
ELET 4421 Computer Networks©	_____	_____	_____

Pre-Approved Electives (12 SH)

ELET 4300 Unix Operating Systems©	_____	_____	_____
ELET 4302 Data Communications Systems©	_____	_____	_____
ELET 4309 Object Oriented Appl Prog©	_____	_____	_____
ELET 4315 Telecommunications©	_____	_____	_____
ELET 4325 Adv Micro Networks©	_____	_____	_____
**Approved Elective©	_____	_____	_____

**Any 3 credit 3000/4000 level ELET, ECE, or COSC course not equivalent to any course on degree plan (maximum of 1 course).

© No grade lower than C- will be accepted for these courses.

Free Elective (3 SH)

Total hours required: 124 semester hours

36 advanced (3000- or 4000-level) semester hours must be completed.

TSI requirements must be met.

For graduation with Honors, see Undergraduate Catalog.

Student _____ Date _____

Advisor _____ Date _____

Department Chair _____ Date _____

COMPUTER ENGINEERING TECHNOLOGY (CETE)

UNIVERSITY OF HOUSTON
COLLEGE OF TECHNOLOGY

ENGINEERING TECHNOLOGY
BACHELOR OF SCIENCE

NAME _____ UHID _____

UNIVERSITY CORE REQUIREMENTS (58 SH)

	GR	SH	AH
<u>Communication (6 SH)</u>			
ENGL 1303 English Composition I	_____	_____	_____
ENGL 1304 English Composition II OR	_____	_____	_____
TELS 3372 Comm in Sci, Eng & Tech	_____	_____	_____

Writing In the Discipline* (3 SH)

_____	_____	_____	_____
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History/Government (12 SH)

HIST 1376 or 1377 US History to 1867	_____	_____	_____
HIST 1378 or 1379 US History since 1867	_____	_____	_____
POLS 1336 US & TX Const/Politics	_____	_____	_____
POLS 1337 US Government	_____	_____	_____

Humanities* (3 SH)

_____	_____	_____	_____
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Visual/Performing Arts* (3 SH)

_____	_____	_____	_____
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Social/Behavioral Science* (3 SH)

_____	_____	_____	_____
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Math/Reasoning (14 SH)«

MATH 1330 Pre-calculus	_____	_____	_____
MATH 1431 Calculus I	_____	_____	_____
MATH 1432 Calculus II	_____	_____	_____
TECH 3366 Appl. Numerical Methods	_____	_____	_____

« Students will be expected to place out of MATH 1310 by either Math Placement Exam, CLEP or have taken MATH 1310

Natural Sciences (11 SH)

PHYS 1301/1101 Intro. Gen. Phys I & Lab	_____	_____	_____
PHYS 1302/1102 Intro. Gen. Phys II & Lab	_____	_____	_____
CHEM 1301 Foundations of Chemistry	_____	_____	_____

DEPARTMENTAL AND COLLEGE REQUIREMENTS

General Technology and College Core (12 SH)

ELET 2300 Intro. C++ Programming	_____	_____	_____
TELS 3340 Org Leadership & Supervision	_____	_____	_____
or HDCS 3300 Organizational Decisions in Tech.	_____	_____	_____
TELS 3363 Technical Comm.	_____	_____	_____
MECT 3341 Computer Aided Drafting	_____	_____	_____
Or Approved MECT elective	_____	_____	_____

MAJOR REQUIREMENTS (44 SH)

	GR	SH	AH
ELET 1300 Electrical Ckts I	_____	_____	_____
ELET 1100 Electrical Ckts I Lab	_____	_____	_____
ELET 1301 Electrical Ckts II	_____	_____	_____
ELET 1101 Electrical Ckts II Lab	_____	_____	_____
ELET 2303 Digital Systems	_____	_____	_____
ELET 2103 Digital Systems Lab	_____	_____	_____
ELET 2305 Semiconductor Devices & Ckts	_____	_____	_____
ELET 2105 Semiconductor Dev & Ckts Lab	_____	_____	_____
ELET 3301 Linear Systems Analysis©	_____	_____	_____
ELET 3402 Communication Ckts.©	_____	_____	_____
ELET 3403 Sensors Applications ©	_____	_____	_____
ELET 3405 Microprocessor Arch©	_____	_____	_____
ELET 3425 Embedded Systems©	_____	_____	_____
ELET 4308 Senior Project©	_____	_____	_____
ELET 4208 Senior Project Lab©	_____	_____	_____
ELET 4421 Computer Networks©	_____	_____	_____

Pre-Approved Electives (12 SH)

ELET 4300 Unix Operating Systems©	_____	_____	_____
ELET 4302 Data Communications Sys©	_____	_____	_____
ELET 4309 Object Oriented Appl Prog©	_____	_____	_____
ELET 4315 Telecommunications©	_____	_____	_____
ELET 4325 Adv Micro Networks©	_____	_____	_____
** Approved Elective©	_____	_____	_____

** Any 3 credit 3000/4000 level ELET, ECE, COSC course not equivalent to any course on degree plan. (maximum of 1 course)

© No grade lower than C- will be accepted for these courses.

Free Elective (3 SH)

_____	_____	_____	_____
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Total hours required: 126 semester hours

36 advanced (3000- or 4000-level) semester hours must be completed.

TSI requirements must be met.

Student _____ Date _____

Advisor _____ Date _____

Department Chair _____ Date _____

Refer to class schedule for lists of courses which satisfy University requirements.

For graduation with Honors, see Undergraduate Catalog.