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UNIVERSITY OF HOUSTON
COLLEGE OF TECHNOLOGY
ENGINEERING TECHNOLOGY DEPARTMENT

APPROVED FEB 2 4 2010

RECEIVED OCT 1 5 2009

MEMORANDUM

TO: University Undergraduate Council

FROM: Dr. Heidar Malki
Chair, Engineering Technology Department

DATE: October 5, 2009

RE: Changes to Mechanical Engineering Technology Degree Plan

Mechanical Engineering Technology:

Mechanical Engineering Technology is submitting a curriculum change. This is in response to the state mandated 120 credit hours. ABET, the accrediting body for METE, 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. In addition CNST 3312 has been removed from the degree plan and an additional 3 hours of approved electives has been required. MECT 4188 - Ethics in Engineering Technology is added to bring the total credits required to 124.

METE is also creating of a new track in Petroleum Technology.

Mechanical Engineering Technology Major

This program includes courses that are directed at computer-aided manufacturing, computer-aided design, and energy systems. Individuals interested in manufacturing technology apply fundamental principles of mechanical design and manufacturing processes to new and existing manufacturing systems. Courses focus on manufacturing planning and management, automated manufacturing systems, quality control, and robotics. Computer-aided design and drafting is an essential component of the design procedure; courses focus on applied mechanical design.

The goal of the Mechanical Engineering Technology major is to provide students with a well-rounded fundamental and application-oriented education focused on the knowledge of existing and new developments in Mechanical Engineering Technology. Graduates of the baccalaureate degree will develop the theoretical and practical knowledge and skills necessary for appropriate careers in local and national industries. To achieve this mission, the Mechanical Engineering Technology program is committed to attaining the following goals for all students:

Provide a career-oriented program that prepares students for productive employment.

Emphasize the latest technological advancements in computer-aided drafting, computer-aided design, and computer-aided manufacturing. Students should be able to apply problem-solving techniques and critical thinking skills at the level required for their professional practice.

Provide a learning environment that will enable students to interact with state-of-the-art technological equipment and software. Students should gain experience in the application of computer software to analyze and design mechanical systems and automated manufacturing systems.

Prepare students to pursue graduate degrees and life-long education.

The programs are 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 lifelong learning.

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

Mechanical Engineering Technology Major Requirements

MECT 1330. Engineering Graphics
MECT 1364. Materials and Processes I
MECT 2354. Introduction to Mechanics
MECT 3318, 3118. Fluid Mechanics Applications, Laboratory
MECT 3331. Applied Thermodynamics
MECT 3341. Computer-Aided Drafting I
MECT 3342. Elements of Plant Design
Deleted: Computer-Aided Drafting II
MECT 3355, 3155. Strength of Materials, Laboratory
MECT 3358. Dynamics of Mechanisms
MECT 3360. Automated Manufacturing Systems
MECT 3365. Computer-Aided Design I
MECT 3367. Quality Control Technology
MECT 4188. Ethics in Engineering Technology
MECT 4372, 4172. Materials Technology, Laboratory
MECT 4275, 4276. Senior Design Project I, Senior Design Project II

Computer-Aided Design and Manufacturing Electives (12 SH)
Deleted: 9

MECT 3362. Industrial Work Measurement
MECT 4323. Applications in Stress Analysis
MECT 4341. Material Selection and Management
MECT 4350. Principles in Mechatronics
MECT 4360. Fundamentals of Biomechanics
MECT 4365. Computer-Aided Design II
MECT 4384. Manufacturing Systems Control
3 SH Mechanical Elective

Petroleum Technology Electives (12 SH)
MECT 4326: Fundamentals of Offshore Systems
MECT 4328: Fundamentals of Pipeline Design
MECT 4330: Valve Design
MECT 4332: Fundamentals of Drilling Technology
MECT 4337: Downhole Drilling Tools and Technology
3 SH Mechanical Elective

PROGRAM REQUIREMENTS

Math (11 semester hours which includes university core)

Students are required to have credit for MATH 1310, College Algebra, through the Math Placement Exam, CLEP, or completion of the course.

MATH 1330. Precalculus
MATH 1431. Calculus I
MATH 1432. Calculus II

Natural Sciences (8 semester hours which includes university core)

PHYS 1301, 1101. Introductory General Physics I, Laboratory

PHYS 1302, 1102. Introductory General Physics II, Laboratory

Social Sciences (3 semester hours)

TECH 1313. Impact of Modern Technology on Society (preferred)

General Technology Requirements

CHEM 1301, 1101. Foundations of Chemistry I, Laboratory

ELET 2307. Electrical Electronic Circuits

TELS 3340. Organizational Leadership and Supervision **or** HDCS 3300. Organizational Decisions in Technology

COSC 1304. C Programming **or** ELET 2300 Introduction to C++ Programming.

Free electives (3 semester hours)

Degree awarded: Bachelor of Science

Major: Mechanical Engineering Technology

Deleted: CNST 3312. Project Finance and Economics

Deleted: TELS 3363. Technical Communications

MECHANICAL ENGINEERING TECHNOLOGY (MET)

UNIVERSITY of HOUSTON
COLLEGE of TECHNOLOGY

ENGINEERING TECHNOLOGY
BACHELOR of SCIENCE

NAME_____ UHID_____

UNIVERSITY CORE REQUIREMENTS (53 SH)

	GR	SH	AH
Communication (9 SH)			
ENGL 1303 English Composition I			
ENGL 1304 English Composition II OR			
Writing in the Discipline (3 SH)			
TELS 3363 Technical Comm.			
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)			
_____			
Visual/Performing Arts* (3 SH)			
_____			
Social/Behavioral Sciences* (3 SH)			
TECH 1313 Impact Modern Tech. On Society OR University approved elective			
Mathematics (11 SH)			
MATH 1330 Elem Functions			
MATH 1431 Calculus I			
MATH 1432 Calculus II			
Natural Sciences (12 SH)			
PHYS 1301/1101 Intro. Gen. Phys I & Lab			
PHYS 1302/1102 Intro. Gen. Phys II & Lab			

DEPARTMENTAL & COLLEGE REQUIREMENTS

	GR	SH	AH
General Technology and College Core (13 SH)			
CHEM 1301/1101Found of Chem I & Lab			
ELET 2307 Ele-Elc Circuits			
TELS 3340 Org Leadership & Supervision			
Or HDCS 3300 Orgnztnl Decisions in Tech.			
ELET 2300 INTRO. C++ Programming **OR**			
COSC 1304 C Language Programming			
Free Electives (3 SH)			
_____			

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

Students are required to have credit for College Algebra through the Math acement Exam, CLEP or completion of the course.

MAJOR REQUIREMENTS (47 SH)

			GR	SH	AH
MECT	1330	Engineering Graphics			
MECT	1364	Materials & Processes I			
MECT	2354	Intro to Mechanics			
MECT	3318	Fluid Mechanics Appl.			
MECT	3118	Fluid Mechanics Appl Lab			
MECT	3331	Applied Thermodynamics			
MECT	3341	Computer-Aided Drafting I			
MECT	3342	Computer-Aided Drafting II			
MECT	3355	Strength of Materials			
MECT	3155	Strength of Mat. Lab			
MECT	3358	Dynamics of Mechanisms			
MECT	3360	Automated Manuf. Sys.			
MECT	3365	Computer-Aided Design I			
MECT	3367	Quality Control Tech.			
MECT	4372	Materials Technology			
MECT	4172	Materials Tech. Lab			
MECT	4188	Ethics in Engineering Tech.			
MECT	4275	Senior Design Project I			
MECT	4276	Senior Design Project II			

COMPUTER-AIDED DESIGN & MANUFACTURIN(ELECTIVES (12 SH)

			GR	SH	AH
MECT	3362	Industrial Work Measurement			
MECT	4323	Apps in Stress Analysis			
MECT	4341	Materials Selection & Manag			
MECT	4350	Principles in Mechatronics			
MECT	4360	Fund. of Biomechanics			
MECT	4365	Computer-Aided Design II			
MECT	4384	Manufacturing Sys. Control			
MECT	_3__	Mechanical Elective			

PETROLEUM TECHNOLOGY ELECTIVES (12 SH

			GR	SH	AH
MECT	4326	Fund. Of Offshore Systems			
MECT	4328	Fund. Of Pipeline Design			
MECT	4330	Valve Design			
MECT	4332	Fund. Of Drilling Tech.			
MECT	4337	Downhole Drilling Tools			
MECT	_3__	Mechanical Elective			

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

TSI requirements must be met.

For graduation with Honors, see Undergraduate Catalog.
Total hours required: 124 semester hours

Student Date

Advisor Date

Department Chair Date

MECHANICAL ENGINEERING TECHNOLOGY (MEET)

UNIVERSITY of HOUSTON
COLLEGE of TECHNOLOGY

ENGINEERING TECHNOLOGY
BACHELOR of SCIENCE

NAME _____ UHID _____

UNIVERSITY CORE REQUIREMENTS (42 SH)

		GR	SH	AH
Communication (6 SH)				
ENGL 1303	English Composition I			
ENGL 1304	English Composition II OR			
Writing In the Discipline* (3 SH)				
_____				
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)				
_____				
Visual/Performing Arts* (3 SH)				
_____				
Social/Behavioral Science* (3 SH)				
TECH 1313	Impact of Modern Tech on Society (preferred)			
Mathematics (11 SH) «				
MATH 1330	Elem Functions or TMTH 1336			
MATH 1431	Calculus I or TMTH 2335			
MATH 1432	Calculus II or TMTH 2336			

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

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

PROGRAM REQUIREMENTS (19 SH)

CHEM 1301/1101	Found of Chem I & Lab			
CNST 3312	Project Finance & Economics			
ELET 2307	Electrical-Electronic Circuits			
ELET 2300	Intro. C++ Programming **OR**			
COSC 1304	C Language Programming			
TELS 3340	Org Leadership & Supervision			
Or HDCS 3300	Organizational Decisions in Tech.			
TELS 3363	Technical Communication			
Free Electives (3 SH)				
_____				

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

MAJOR REQUIREMENTS (46 SH)

			GR	SH	AH
MECT	1330	Engineering Graphics			
MECT	1364	Materials & Processes I			
MECT	2354	Intro to Mechanics			
MECT	3318	Fluid Mechanics Applications			
MECT	3118	Fluid Mechanics Appl. Lab			
MECT	3331	Applied Thermodynamics			
MECT	3341	Computer-Aided Drafting I			
MECT	3342	Computer-Aided Drafting II			
MECT	3355	Strength of Materials			
MECT	3155	Strength of Materials Lab			
MECT	3358	Dynamics of Mechanisms			
MECT	3360	Auto Manufacturing Systems			
MECT	3365	Computer-Aided Design I			
MECT	3367	Quality Control Technology			
MECT	4372	Materials Technology			
MECT	4172	Materials Technology Lab			
MECT	4275	Design of Mechanisms			
MECT	4276	Design of Mechanisms Lab			

COMPUTER-AIDED DESIGN & MANUFACTURING ELECTIVES (9 SH)

MECT	3362	Industrial Work Measurement			
MECT	4323	Applications in Stress Analysis			
MECT	4350	Principles in Mechatronics			
MECT	4365	Computer-Aided Design II			
MECT	4384	Manufacturing Sys. Control			
MECT	_3_	Mechanical Elective			

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

TSI requirements must be met.

For graduation with Honors, see Undergraduate Catalog.

Total hours required: 126 semester hours

Student _____ Date _____

Advisor _____ Date _____

Department Chair _____ Date _____

Fall 2008