

TO: Lawrence Williams, Chair
Undergraduate Council

FROM: Richard Scamell
Degree Programs Committee: Programs

SUBJECT: UC 10484 09F, UC 10485 09F, UC 10486 09F and UC 10487 09F

DATE: February 24, 2010

APPROVED FEB 24 2010
JS

The Committee met on Wednesday, February 3 to consider four proposals from the Department of Engineering Technology. Participating in the discussions were committee members Betty Barr, Miranda Bennett, Roger Blakeney, Debbie Hermann, Iain Morrison, and Richard Scamell. Heidar Malki attended the meeting as a guest.

The curriculum changes described below come in response to (a) the state-mandated 120 semester credit hour requirement and (b) the Accreditation Board for Engineering and Technology (ABET) requirement that specifies a minimum of 124 semester credit hours. Thus each proposal addresses creating a degree program with 124 semester credit hours. The remainder of this report describes each curriculum change. It should be noted that the number of semester credit hours in the current degree plans associated with UC 10484 09F, UC 10485 09F, and UC 10486 09F is 126. The number of semester credit hours associated with UC 10487 09F is currently 120/121.

UC 10484 09F – Changes to the Computer Engineering Technology Degree Plan

- Move TELS 3363 – Technical Communication from department/college requirements to university core requirements and use as a Writing in the Discipline course and thus eliminating the requirement that students select three semester credit hours from what was previously a core approved list (drops degree requirements from 126 to 123 semester credit hours).
- Add MECT 4188 – Ethics in Engineering Technology as part of the 13 hour general technology and college core (increases degree requirements from 123 to 124 semester credit hours).

UC 10485 09F – Changes to the Electrical Power Technology Degree Plan

- Move TELS 3363 – Technical Communication from department/college requirements to university core requirements and use as a Writing in the Discipline course and thus eliminating the requirement that students select three semester credit hours from what was previously a core approved list (drops degree requirements from 126 to 123 semester credit hours).
- Create a new lab course, ELET 4126 – Power Converter Circuits as part of what is now the 51 semester hour major requirement to allow a more in-depth study of power converters (increases degree requirements from 123 to 124 semester credit hours).

UC 10486 09F – Changes to the Mechanical Engineering Technology Degree Plan

- Move TELS 3363 – Technical Communication from department/college requirements to university core requirements and use as a Writing in the Discipline course and thus eliminating the requirement that students select three semester credit hours from what was previously a core approved list (drops degree requirements from 126 to 123 semester credit hours).
- Delete CNST 3312 – Project Finance and Economics from Degree Plan (drops degree requirements from 123 to 120 semester credit hours).
- Add three hours of approved electives to the Degree Plan (increases degree requirements from 120 to 123 semester credit hours).

- Add MECT 4188 – Ethics in Engineering Technology to the Degree Plan in the Major Requirements category (increases degree requirements from 123 to 124 semester credit hours).

In reviewing the proposed Mechanical Engineering Degree Plan, the committee observed two errors and offers one clarification. There is a typographical error in the number of semester credit hours under Communication in the University Core Requirements. The 9 hours shown should be changed to 6. A typographical error also appears in the number of semester credit hours under Natural Sciences under the University Core Requirements. The 12 hours shown should be changed to 8. A revised version of this degree plan incorporating these changes is attached to this report. It should be noted that students majoring in Mechanical Engineering Technology must take as electives either 12 hours of coursework in computer-aided design and manufacturing or 12 hours of coursework in petroleum technology.

UC 10487 09F – Changes to Survey Engineering Technology Degree Plan (Current Program 120-121 hours)

The current Survey Engineering Technology degree program contains 121 semester credit hours if students take both MATH 1431 – Calculus I and MATH 1432 – Calculus II. The program is 120 semester credit hours long if students take MATH 1431 – Calculus I and TMTM 3360 – Applied Technical Statistics. The purpose of the following changes is to increase the number of semester credit hours to 124/125. Several of these changes differ from those originally contained in UC 10487 09F.

- Move TELS 3363 – Technical Communication from department/college requirements to university core requirements and use as a Writing in the Discipline course and thus eliminating the requirement that students select three semester credit hours from what was previously a core approved list (drops degree requirements from 120/121 to 117/118 semester credit hours).
- GEOL 4331 – Introduction to Geographic Information Systems was removed from the list of Pre-Approved Electives (no impact on the number of semester credit hours required for the degree).
- CNST 1361 – Construction Management I and CNST 2341 – Construction Documents were moved out of the 45 hour major requirements area into what is proposed as the 12 hour approved electives area. Replacing these two courses in the major requirements area were SURY 2371 – Global Positioning System and SURY 3373 – Subdivision Planning and Design. The net result is no impact on the number of semester credit hours required for a degree.
- CNST 4265 – Site Development and Environmental Issues was removed from the degree plan (drops degree requirements from 117/118 to 115/116 semester credit hours).
- TELS 4372 – Proposal and Project Writing was moved from major requirements to approved electives (no impact of the number of semester hours required for the degree).
- SURY 2372 – Geographic Information Systems has been added to the major requirements (increases the number of semester credit hours required for the degree from 115/116 to 118/119).
- The number of free electives allowed has increased from 3 hours to 9 hours (increases the number of semester credit hours required for the degree from 118/119 to 124/125).

Recommendation

The Committee recommends approval of all four proposals.

*2/24/10
Tabled for
further
discussion*

MECHANICAL ENGINEERING TECHNOLOGY (MET)

UNIVERSITY of HOUSTON
COLLEGE of TECHNOLOGY

ENGINEERING TECHNOLOGY
BACHELOR of SCIENCE

NAME _____ UHID _____

UNIVERSITY CORE REQUIREMENTS (49 SH)

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

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 (8 SH)

PHYS 1301/1101 Intro. Gen. Phys I & Lab _____
PHYS 1302/1102 Intro. Gen. Phys II & Lab _____

DEPARTMENTAL & COLLEGE REQUIREMENTS

General Technology and College Core (13 SH)

CHEM 1301/1101 Found of Chem I & Lab _____
ELET 2307 Ele-Elc Circuits _____
TELS 3340 Org Leadership & Supervision _____
Or HDCS 3300 Orgnztl 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 Placement 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 & MANUFACTURING ELECTIVES (12 SH)

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)

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 _____