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UNIVERSITY of
HOUSTON

College of Technology
Construction Management

APPROVED APR 23 2014

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February 10, 2014

MEMO

To: Undergraduate Academic Committee
From: Dr. Neil Eldin, Chair, Department of Construction Management
Subject: Additional math requirements

The CM curriculum and many CM jobs require good understanding of math and statistics concepts. To better prepare our students, we propose the following changes:

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- Add MATH 2311 (Introduction to Probability and Statistics) to the "Math/Reasoning" section of the degree plan.
- Remove TELS 3363 (Technical Communication) from the "Program Requirements" to maintain the current 120-hours degree plan.

The university's "Writing in the Discipline" requirement is satisfied by GENB 4350 (Business Law & Ethics) in our degree plan.

The above changes will not impact the university core curriculum requirements or the degree program accreditation by the American Council for Construction Education (ACCE).

Attached are the revised degree plan and the catalog description with these changes noted.

Respectfully,



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The program offers two curricula: one desirable for Process and Industrial Construction and the other for Commercial Construction. Each provides a balanced mix of construction, engineering and business skills.

The objective of the Construction Management program is to provide graduates with knowledge and skills that are valued and sought by the construction industry profession. Commercial, industrial, and highway/heavy sectors of the construction industry need entry-level professional employees who are knowledgeable and skilled. Graduates must have knowledge of construction materials and methods, structural systems, soils site development, business, and contract administration; and have skills for planning, estimating, scheduling, and evaluating project performance. The curriculum provides fundamental and advanced coursework that incorporate current standards and technology for managing and providing quality construction. Software is applied in curriculum courses to prepare students for the utilization of computer applications in construction management.

Our Construction Management graduates should have knowledge and problem-solving skills to perform the following tasks:

- Determine costs for construction projects, and evaluate cost performance;
- Interpret construction documents and standards;
- Apply time value of money concepts for evaluation of alternatives;
- Prepare project schedules;
- Apply engineering design concepts for site development (soils and foundations, water distribution, waste-water collection, and storm-water drainage); and
- Perform general managerial functions.

The program is committed to attaining the following goals:

Provide a career-oriented program that prepares students for productive and professional employment in the construction industry.

Emphasis inclusion of recent technological advancements in construction management.

Prepare graduates to pursue graduate degrees and life-long learning. Provide students with an opportunity to prepare for entry into the graduate Construction Management program.

At the Masters level, students will receive advanced education, preparing them to be construction management leaders in industry or faculty members in academia. For more information on the graduate program, please refer to the Graduate and Professional Studies catalog.

Students pursuing a major in Construction Management must complete the following requirements in addition to the university core and general college requirements. Majors in Construction Management may use no grade below C- in junior and senior level courses to satisfy major degree requirements.

Construction Management Major Requirements

CNST 1361 - Construction Management | Credit Hours: 3.0

CNST 2351 - Construction Estimating | Credit Hours: 3.0

CNST 3185 - Construction Experience | Credit Hours: 1.0

CNST 3301 - Construction Equipment and Methods | Credit Hours: 3.0

CNST 3331 - Construction Planning and Scheduling | Credit Hours: 3.0

CNST 3355 - Strength of Construction Materials | Credit Hours: 3.0

CNST 3155 - Construction Materials and Testing Credit Hours: 1.0

CNST 3372 - Soil Mechanics and Foundations Credit Hours: 3.0

CNST 4265 - Construction Layout and Site Development Credit Hours: 2.0

CNST 4302 - Construction Law and Ethics Credit Hours: 3.0

Students must choose either the Commercial Construction Track or the Process and Industrial Track.

Commercial Construction Track

CNST 1301 - Construction Materials and Methods Credit Hours: 3.0

CNST 1330 - Graphics I Credit Hours: 3.0

CNST 2321 - Mechanical and Electrical Systems Credit Hours: 3.0

CNST 2341 - Construction Documents Credit Hours: 3.0

CNST 3351 - Construction Estimating II Credit Hours: 3.0

CNST 4311 - Structural Steel and Timber Construction Credit Hours: 3.0

CNST 4331 - Construction Management II Credit Hours: 3.0

CNST 4341 - Project Controls Credit Hours: 3.0

CNST 4381 - Reinforced Concrete and Building Codes Credit Hours: 3.0

Process and Industrial Track

CNST 1315 - Project Drawings & Graphics Credit Hours: 3.0

CNST 1325 - Process and Industrial Construction Credit Hours: 3.0

CNST 2325 - Process and Industrial Subsystems Credit Hours: 3.0

CNST 2345 - Contract Documents for Capital Projects Credit Hours: 3.0

CNST 3210 - Safety for Industrial Projects Credit Hours: 2.0

CNST 3365 - Cost Estimating for Capital Projects Credit Hours: 3.0

CNST 4315 - Steel Construction Credit Hours: 3.0

CNST 4335 - Capital Projects Development Credit Hours: 3.0

CNST 4345 - Reinforced Concrete Structures Credit Hours: 3.0

CNST 4385 - Field Operations for Capital Projects Credit Hours: 3.0

Note(s):

GPA for major will be calculated on the major requirements including the Commercial Construction or the Process and Industrial Track.

College Requirements and University Core

Communications

(6 semester hours which includes university core)

ENGL 1303 - First Year Writing I Credit Hours: 3.0

ENGL 1304 - First Year Writing II Credit Hours: 3.0

Writing in the Discipline

(3 semester hours which includes university core)

GENB 4350 - Business Law and Ethics Credit Hours: 3.0

US History/American Government

(12 semester hours which includes university core)

HIST 1377 - The United States to 1877 Credit Hours: 3.0

HIST 1379 - The United States Since 1877 Credit Hours: 3.0

POLS 1336 - U.S. and Texas Constitutions and Politics Credit Hours: 3.0

POLS 1337 - U.S. Government: Congress, President, and Courts Credit Hours: 3.0

Humanities

(3 semester hours which includes university core)

Visual & Performing Arts

(3 semester hours which includes university core)

Choose from approved list

Mathematics/Reasoning

(~~40~~13 semester hours which includes university core)

Students are required to have credit for College Algebra through Math Placement Exam, CLEP, or have taken MATH 1310.

MATH 1313 - Finite Mathematics with Applications Credit Hours: 3.0

MATH 1330 - Precalculus Credit Hours: 3.0

MATH 1431 - Calculus I Credit Hours: 4.0

MATH 2311 - Intro to Probability & Statistics Credit Hours: 3.0

Natural Sciences

(8 semester hours which includes university core)

PHYS 1301 - Introductory General Physics I Credit Hours: 3.0

PHYS 1101 - General Physics Laboratory I Credit Hours: 1.0

PHYS 1302 - Introductory General Physics II Credit Hours: 3.0 and

PHYS 1102 - General Physics Laboratory II Credit Hours: 1.0

or

GEOL 1330 - Physical Geology Credit Hours: 3.0 and

GEOL 1130 - Physical Geology Laboratory Credit Hours: 1.0

Social/Behavioral Sciences

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(3 semester hours which includes university core)

ECON 2304 - Microeconomic Principles Credit Hours: 3.0 or
ECON 2305 - Macroeconomic Principles Credit Hours: 3.0

Program Requirements

(912 SH)

ACCT 2331 - Accounting Principles 1 - Financial Credit Hours: 3.0

ACCT 2332 - Accounting Principles 2 - Managerial Credit Hours: 3.0

COMM 1332 - Fundamentals of Public Speaking Credit Hours: 3.0

~~TELS 3363 - Technical Communications Credit Hours: 3.0~~

Approved Business Electives:

(Choose 6 SH)

MANA 3335 - Introduction to Organizational Behavior and Management Credit Hours: 3.0

MARK 3336 - Elements of Marketing Administration Credit Hours: 3.0

FINA 3332 - Principles of Financial Management Credit Hours: 3.0

SCM 3301 - Service and Manufacturing Operations Credit Hours: 3.0