

APPROVED FEB 22 2012

DEGREE PROGRAMS/CBM003 SUBCOMMITTEE 2 REPORT *as amended*

TO: Simon Bott, Undergraduate Committee Chair
FROM: Luke Faulkenberry, Chair, Degree Programs/CBM003 Subcommittee 2
DATE: February 15, 2012

The subcommittee met on February 1, 2012 at 3:00pm in room 200, T2.

Members present: Luke Faulkenberry, Reagan Herman, Melissa Pierson, Shishir Shah, Ron Singer

Guest(s): Tom Holley (Petroleum Engineering); Ashraf Ayoub (Civil & Environmental Engineering)

Degree Plans

UC 11385 11F: Update to Chemical Engineering Degree Plan

The update to the Chemical Engineering degree plan is the replacement of MATH 3321, Engineering Mathematics, with CHEE 3321, Analytical Methods for Chemical Engineers. The courses are similar except that CHEE 3321 covers partial differential equations which are not covered in Math 3321, and CHEE 3321 places emphasis in problems appearing in chemical engineering applications.

UC 11387 11F: Petroleum Engineering Degree Plan Changes

The Petroleum Engineering Degree Plan currently has one degree plan in petroleum engineering with an emphasis available in Production Engineering. The Department is proposing two degree plans, one in Petroleum Engineering - Chemical Engineering option with 126 semester hours, and a Petroleum Engineering degree plan - Production Engineering option with 127 semester hours. The first three years are alike, but the courses in the fourth year are strongly chemical engineering oriented in the Chemical Engineering option, and strongly production engineering oriented in the Production Engineering option. The first semester of the fourth year of the Production Engineering option has one more semester hour than the Chemical Engineering option. The separate degree plans should guide the students better.

In the first semester of the fourth year will differ by two courses. The Chemical Engineering Option students will take CHEM ~~3331~~³³³¹, Fundamentals of Organic Chemistry and CHEM 3221, Fundamentals of Organic Chemistry Lab. The Production Engineering Option student will take PETR 5324, Petroleum Production Economics, and PETR 5350, Natural Gas Engineering. The second semester of the fourth year will differ by one course. The Chemical Engineering Option students will take either CHEE 3333, Chemical Engineering Thermodynamics II, or CHEE 3300, Materials Science and Engineering I. The Production engineering students will take PETR 5372, Petroleum Production Operation.

UC 11401 11F: Nanoengineering Minor Curriculum Adjustment

ECE 5322, Nanoengineering Research, a course with specific focus on undergraduate research in the area of nanoengineering and technology should be added as one of the research options equivalent to completing ECE/CHEE/MECE 4397. ECE 5322 was offered starting in fall 2011.

UC 11425 11F: Update of B.S. in Mechanical Engineering Degree Plan

In the previous academic year ENGI 2304, Technical Communications, was added as a prerequisite for MECE 2361, Introduction to Mechanical Design. This change is reflected in the current Undergraduate Catalog course description for MECE 2361. The change is not reflected in the BSME degree plan in the Undergraduate Catalog in that MECE 2361, fall semester sophomore year, is listed before ENGI 2304, spring semester sophomore year.

MECE requests that the placement of the two courses in the BSME degree plan in the Undergraduate Catalog be interchanged.

CMB003 Forms

- UC 11386 11F: CHEE 5120: Nanomaterials Engineering Laboratory (Course Change)
- UC 11388 11F: PETR 1100: Introduction to Petroleum Engineering (Course Change)
- UC 11389 11F: PETR 2311: Reservoir Petrophysics (Course Change)
- UC 11390 11F: PETR 3313: Reservoir Fluids (Course Change)
- UC 11391 11F: PETR 3315: Introduction to Well Logging (Course Change)
- UC 11392 11F: PETR 3318: Well Drilling and Completion I (Course Change)
- UC 11393 11F: PETR 3321: Pressure Transient Testing (Course Change)
- UC 11394 11F: PETR 3362: Reservoir Engineering I (Course Change)
- UC 11395 11F: PETR 4311: Capstone Lab Project (Course Change)
- UC 11396 11F: PETR 5304: Evaluation of Petroleum Bearing Formations I for Non-BS Majors (Course Change)
- UC 11397 11F: PETR 5328: Petroleum Fluid Properties and Phase Equilibria for Non PETR BS Majors (Course Change)
- UC 11398 11F: PETR 5361: Introduction to Petroleum Engineering for Non PETR BS Majors (Course Change)
- UC 11399 11F: PETR 5362: Reservoir Engineering I for Non PETR BS Majors (Course Change)
- UC 11400 11F: PETR 5364: Origin and Development of Oil and Gas Reservoirs for Non PETR BS Majors (Course Change)
- UC 11402 11F: CIVE 1100: Introduction to Civil Engineering (Course Change)
- UC 11403 11F: CIVE 1331: Computing for Engineers (also CHEE 1331, INDE 1331) (Course Change)
- UC 11404 11F: CIVE 2332: Mechanics of Solids (Course Change)
- UC 11405 11F: CIVE 3331: Environmental Engineering (Course Change)
- UC 11406 11F: CIVE 3337: Structural Analysis (Course Change)
- UC 11407 11F: CIVE 3339: Geotechnical Engineering (Course Change)
- UC 11408 11F: CIVE 3434: Fluid Mechanics and Hydraulic Engineering (Course Change)
- UC 11409 11F: CIVE 4311: Professional Practice in Civil Engineering (Course Change)
- UC 11410 11F: CIVE 4312: Civil Engineering Design Project (Course Change)
- UC 11411 11F: CIVE 4331: Water Quality Engineering (Course Change)
- UC 11412 11F: CIVE 4333: Water and Wastewater Treatment (Course Change)
- UC 11413 11F: CIVE 4369: Foundation Engineering (Course Change)

UC 11721 12S

UC 11414 11F: CIVE 4337: Transportation Engineering (Course Change)
UC 11415 11F: CIVE 5380: Introduction to Geomatics and Geosensing (Course Change)
UC 11416 11F: ECE 5120: Nanomaterials Engineering Laboratory (Course Change)
UC 11417 11F: ECE 5344: Signal Integrity (New Course)
UC 11418 11F: ECE 5358: Modern Optics and Photonics (New Course)
UC 11426 11F: MECE 3336: Mechanics II (Course Change)