

CBM003 ADD/CHANGE FORM

Undergraduate Council
 New Course Course Change
 Core Category: NONE Effective Fall 2008

or
 Graduate/Professional Studies Council
 New Course Course Change
 Effective Fall

RECEIVED MAR 06 2008

APPROVED OCT 22 2008

- Department: CHE ENG College: ENGR
- Person Submitting Form: Dr. Michael P. Harold Telephone: 34307
- Course Information on New/Revised course:
 - Instructional Area / Course Number / Long Course Title:
PETR / 5311 / Creativity and Innovation
 - Instructional Area / Course Number / Short Course Title (30 characters max.)
PETR / 5311 / CREATIVITY AND INNOVATION
 - SCH: 3.00 Level: SR CIP Code: 14.2501.00 Lect Hrs: 3 Lab Hrs: 0
- Justification for adding/changing course: To provide for new discipline areas
- Was the proposed/revised course previously offered as a special topics course? Yes No
 If Yes, please complete:
 - Instructional Area / Course Number / Long Course Title:
____ / ____ / ____
 - Content ID: _____ Start Date (yyyy3): _____
- Authorized Degree Program(s): BS PETR ENGR
 - Does this course affect major/minor requirements in the College/Department? Yes No
 - Does this course affect major/minor requirements in other Colleges/Departments? Yes No
 - Are special fees attached to this course? Yes No
 - Can the course be repeated for credit? Yes No
- Grade Option: Letter (A, B, C ...) Instruction Type: lecture ONLY (Note: Lect/Lab info. must match item 3, above.)
- If this form involves a change to an existing course, please obtain the following information from the course inventory: Instructional Area / Course Number / Long Course Title
 ____ / ____ / ____
 - Start Date (yyyy3): _____ Content I.D.: _____
- Proposed Catalog Description: (If there are no prerequisites, type in "none".)
 Cr: 3. (3-0). Prerequisites: MATH 3321 and MECE 2334. Description (30 words max.): Elements of creativity (intention, observation, imitation, improvisation, provocation, movement, judgment suspension, action, tenacity) vertical and lateral thinking processes, continuity analysis, search for alternatives, and TRIZ.

10. Dean's Signature:  Date: 3/6/08
 Print/Type Name: Joseph Tedesco, Dean

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Cullen College of Engineer
CBM003 Supplement - B F
(New Course)

Must be attached to CBM003 form

Course: <u>PETR</u>	<u>5311</u>	
<i>Subject Prefix</i>		<i>Course Number</i>

1. **Course Title:** Creativity and Innovation
2. **Pre-requisite/Co-requisite:** MATH 3321 and MECE 2334.
3. **Rational for Course Format:** Standard University format
4. **Rational for Course Content:** Based on accepted concepts in creativity.
5. **ABET Constituents consulted:** Petroleum Engineering Advisory Board, several industry focus groups.
6. **State Course Outcomes:** Students learn tools and techniques of creativity for technical professionals.
7. **Course Performance after implementing format and content changes:** _____¹
8. **Is course required?** X Yes No
9. **Required course outline attached?** X Yes No
10. **Estimated student demand** 50 _____ per semester
11. **Similar courses in other departments:** Yes X No
 a. *If yes, list course(s)* _____
12. **Is course part of a sequence?** X Yes No
 a. *If Yes, identify the sequence and comment on the relation to prior and subsequent courses: Subsequent course will cover more advanced aspects of the same subject in graduate level*
13. **Textbook(s) and other required materials:** Edward de Bono, "Lateral Thinking, Creativity Step by Step" Harper & Row, Publishers, New York, ISBN 0-06-090325, plus class notes.


Note: Special Fees: If special fees requested, Course Related Fee Request Form will be required.

¹ Department reports will be requested about the effects of your new course on your curriculum both 12 and 24 months after the effective date for this new course.

Cullen College of Engineering
CBM003 Supplement - B F01
(New Course)

UC 9789 08F

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	2/21/08	<input checked="" type="checkbox"/> Approved
Chair of Initiating Dept. Signature	Date	

PETR 5311: Creativity and Innovation
Credits: 3

Course description. Elements of creativity (intention, observation, imitation, improvisation, provocation, movement, judgment suspension, action, tenacity), vertical and lateral thinking processes, continuity analysis, search for alternatives, and TRIZ

Pre-requisites: Math 3321 and MECE 2334.

Text Book: Edward de Bono, "Lateral Thinking, Creativity Step by Step" Harper & Row, Publishers, New York, ISBN 0-06-090325, plus class notes

Course objectives: This course introduces students to the various elements of the creativity process and teaches them the tools that will enhance their creative output.

Topics and Hours

Introduction to Creativity	4
Creativity in Daily Life	3
Class exercise in Creativity	3
Essentials of the creativity process	4
Human Thinking Processes	2
Class exercise in thinking processes	3
Creativity Steps	3
Search for Alternatives	3
Provocation	3
Movement/Progression	1
Judgement Suspension	1
Class Exercise in provocation	3
TRIZ	3
Student presentations	3
Outside industry presentations	3
Total	42

Method of evaluation: students will be divided into teams of four, and each team will select a specific creativity project that it will complete during the course.

Grading will be on Pass/Fail basis.