CBM003 ADD/CHANGE FORM

1. Department: CHE ENG  College: ENGR
2. Person Submitting Form: Dr. Michael P. Harold  Telephone: 34307
3. 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
4. Justification for adding/changing course: To provide for new discipline areas
5. 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): ___
6. 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
7. Grade Option: Letter (A, B, C …)  Instruction Type: lecture ONLY  (Note: Lect/Lab info. must match item 3, above.)
8. 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.: ___
9. 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 (intuition, 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
Must be attached to CBM003 form

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<th>Course: PETR</th>
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<td>Subject Prefix</td>
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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:

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


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

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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.
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<th>Chair of Initiating Dept. Signature</th>
<th>1-21-08</th>
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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.


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.