### Trial Course or New Course Proposal

**SUBMITTED BY:**

<table>
<thead>
<tr>
<th>Department</th>
<th>Petroleum Engineering</th>
<th>College/School</th>
<th>CEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepared by</td>
<td>Catherine Hanks</td>
<td>Phone</td>
<td>474-5562 or 2668</td>
</tr>
<tr>
<td>Email Contact</td>
<td><a href="mailto:thanks@gi.alaska.edu">thanks@gi.alaska.edu</a></td>
<td>Faculty Contact</td>
<td><a href="mailto:thanks@gi.alaska.edu">thanks@gi.alaska.edu</a></td>
</tr>
</tbody>
</table>

1. **ACTION DESIRED** *(CHECK ONE):*
   - [X] New Course
   - [ ] Trial Course

2. **COURSE IDENTIFICATION:**
   - Dept: PETE
   - Course #: 646
   - No. of Credits: 3

   Justify upper/lower division status & number of credits: 
   - Course will require 300 level geoscience courses or graduate standing in petroleum engineering or permission of the instructor; course will be predominantly a lecture-based course with in-class exercises and homework. Students enrolled in 646 will be assigned different and more complex homeworks that will incorporate learning software and using real-life datasets. Students enrolled in 646 will also be expected to do a paper and presentation.

3. **PROPOSED COURSE TITLE:**
   - Petroleum Geology

4. **To be CROSS LISTED?**
   - Yes
     - If yes, Dept: GEOS
     - Course #: 446/646

   *(Requires approval of both departments and deans involved. Add lines at end of form for such signatures.)*

5. **To be STACKED?**
   - Yes
     - If yes, Dept: GEOS
     - Course #: 446

6. **FREQUENCY OF OFFERING:**
   - Alternate Fall
   - Fall, Spring, Summer (Every, or Even-numbered Years, or Odd-numbered Years) — or As Demand Warrants

7. **SEMESTER & YEAR OF FIRST OFFERING** *(AY2011-12 if approved by 3/1/2012; otherwise AY2012-13)*
   - AY 2012-2013

8. **COURSE FORMAT:**
   - NOTE: Course hours may not be compressed into fewer than three days per credit. Any course compressed into fewer than six weeks must be approved by the college or school’s curriculum council. Furthermore, any core course compressed to less than six weeks must be approved by the core review committee.

<table>
<thead>
<tr>
<th>COURSE FORMAT:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>X</th>
<th>6 weeks to full semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTHER FORMAT (specify)</td>
<td>Lecture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. **CONTACT HOURS PER WEEK:**
   - 3 LECTURE hours/week
   - Lab hours/week
   - Practicum hours/week

   Note: # of credits are based on contact hours. 800 minutes of lecture=1 credit. 2400 minutes of lab in a science course=1 credit. 1600 minutes in non-science lab=1 credit. 2400-4800 minutes of practicum=1 credit. 2400-8000 minutes of internship=1 credit. This must match with the syllabus. See http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/-guidelines-for-computing/ for more information on number of credits.

10. **COMPLETE CATALOG DESCRIPTION including dept., number, title, credits, credit distribution, cross-listings and/or stacking (50 words or less if possible):**

```
PETE F646 Petroleum Geology
3 Credits Offered Fall Even-numbered Years
Examines the origin of petroleum, the geologic controls on its distribution and accumulation
```
and the basic tools used exploration and exploitation, including subsurface mapping, well logging and exploration geophysics. Prerequisites: Graduate standing or permission of the instructor. Cross-listed with GEOS F646. Stacked with GEOS F446. (3 + 0)

GEOS F646  Petroleum Geology
3 Credits  Offered Fall Even-numbered Years
Examines the origin of petroleum, the geologic controls on its distribution and accumulation and the basic tools used exploration and exploitation, including subsurface mapping, well logging and exploration geophysics. Prerequisites: Graduate standing or permission of the instructor. Cross-listed with PETE F646. Stacked with GEOS F446. (3 + 0)

GEOS F446  Petroleum Geology
3 Credits  Offered Fall Even-numbered Years
Examines the origin of petroleum, the geologic controls on its distribution and accumulation and the basic tools used exploration and exploitation, including subsurface mapping, well logging and exploration geophysics. Prerequisites: GEOS F314 and F322 or equivalent. Stacked with GEOS F646. (3 + 0)
17. PREVIOUS HISTORY
Has the course been offered as special topics or trial course previously? Yes/No
Yes
If yes, give semester, year, course #, etc.: GEOS/PETE 494/694 Fall 2008, 209, 2010

18. ESTIMATED IMPACT
WHAT IMPACT, IF ANY, WILL THIS HAVE ON BUDGET, FACILITIES/SPACE, FACULTY, ETC.
No additional impact. Uses existing space and faculty

19. LIBRARY COLLECTIONS
Have you contacted the library collection development officer (kljensen@alaska.edu, 474-6695) with regard to the adequacy of library/media collections, equipment, and services available for the proposed course? If so, give date of contact and resolution. If not, explain why not.
No X Yes No additional material needed other than what is already available. Supplemental readings will be acquired by ILL or via existing journal subscriptions.

20. IMPACTS ON PROGRAMS/DEPTS
What programs/departments will be affected by this proposed action?
Include information on the Programs/Departments contacted (e.g., email, memo)
This course will provide an additional elective for both the Petroleum Engineering and Geology departments.

21. POSITIVE AND NEGATIVE IMPACTS
Please specify positive and negative impacts on other courses, programs and departments resulting from the proposed action.
No negative impact on any other courses, programs or departments is anticipated. On the positive side, this course would provide an additional elective for both engineering and geology undergraduates. As a cross-listed course, this class would provide an opportunity for students from both departments to interact. The course would also strengthen ties between the geology and petroleum engineering programs.

JUSTIFICATION FOR ACTION REQUESTED
The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. Use as much space as needed to fully justify the proposed course.
Although petroleum exploration and production is the economic backbone of the state, there is no course offered currently at UAF that addresses the origin of and geologic controls on the distribution of hydrocarbons. This course will provide those UAF undergraduates and graduate students most likely to pursue jobs in industry with valuable information and skills that they will need to work in the petroleum industry.
**APPROVALS:** Add additional signature lines as needed.

<table>
<thead>
<tr>
<th>Signature, Chair, Program/Department of:</th>
<th>Date</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Signature, Chair, College/School Curriculum Council for:</th>
<th>Date</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Signature, Dean, College/School of:</th>
<th>Date</th>
</tr>
</thead>
</table>

Signature of Provost (if applicable)

Offerings above the level of approved programs must be approved in advance by the Provost.

**ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE**

<table>
<thead>
<tr>
<th>Signature, Chair</th>
<th>Date</th>
</tr>
</thead>
</table>

Faculty Senate Review Committee:

- [ ] Curriculum Review
- [ ] GAAC
- [ ] Core Review
- [ ] SADAC

**ADDITIONAL SIGNATURES: (As needed for cross-listing and/or stacking)**

<table>
<thead>
<tr>
<th>Signature, Chair, Program/Department of: Geology + Geophysics</th>
<th>Date 9/28/11</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Signature, Chair, College/School Curriculum Council for: CNSN</th>
<th>Date 10/4/11</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Signature, Dean, College/School of: CNSN</th>
<th>Date Oct 7, 2010</th>
</tr>
</thead>
</table>
APPROVALS: Add additional signature lines as needed.

Signature, Chair, Program/Department of: ____________________________ Date 9/20/11
Signature, Chair, College/School Curriculum Council for: ____________________________ Date 9/30/11
Signature, Dean, College/School of: ____________________________ Date 10/12/11
Signature of Provost (if applicable)
Offerings above the level of approved programs must be approved in advance by the Provost.

ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE

Signature, Chair: ____________________________ Date ____________
Faculty Senate Review Committee: __________Curriculum Review __________GAAC
________________Core Review __________SADAC

ADDITIONAL SIGNATURES: (As needed for cross-listing and/or stacking)

Signature, Chair, Program/Department of: ____________________________ Date ____________
Signature, Chair, College/School Curriculum Council for: ____________________________ Date ____________
Signature, Dean, College/School of: ____________________________ Date ____________
ATTACH COMPLETE SYLLABUS (as part of this application). Note: The guidelines are online: http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-/uaf-syllabus-requirements/
The Faculty Senate curriculum committees will review the syllabus to ensure that each of the items listed below are included. If items missing or unclear, the proposed course (or changes to it) may be denied.

SYLLABUS CHECKLIST FOR ALL UAF COURSES
During the first week of class, instructors will distribute a course syllabus. Although modifications may be made throughout the semester, this document will contain the following information (as applicable to the discipline):

1. Course information:
   - Title,
   - number,
   - credits,
   - prerequisites,
   - location,
   - meeting time
   (make sure that contact hours are in line with credits).

2. Instructor (and if applicable, Teaching Assistant) information:
   - Name,
   - office location,
   - office hours,
   - telephone,
   - email address.

3. Course readings/materials:
   - Course textbook title,
   - author,
   - edition/publisher.
   - Supplementary readings (indicate whether required or recommended) and
   - any supplies required.

4. Course description:
   - Content of the course and how it fits into the broader curriculum;
   - Expected proficiencies required to undertake the course, if applicable.
   - Inclusion of catalog description is strongly recommended, and
   - Description in syllabus must be consistent with catalog course description.

5. Course Goals (general), and (see #6)

6. Student Learning Outcomes (more specific)

7. Instructional methods:
   - Describe the teaching techniques (eg: lecture, case study, small group discussion, private instruction, studio instruction, values clarification, games, journal writing, use of Blackboard, audio/video conferencing, etc.).

8. Course calendar:
   - A schedule of class topics and assignments must be included. Be specific so that it is clear that the instructor has thought this through and will not be making it up on the fly (e.g. it is not adequate to say “lab”. Instead, give each lab a title that describes its content). You may call the outline Tentative or Work in Progress to allow for modifications during the semester.

9. Course policies:
   - Specify course rules, including your policies on attendance, tardiness, class participation, make-up exams, and plagiarism/academic integrity.

10. Evaluation:
    - Specify how students will be evaluated, what factors will be included, their relative value, and how they will be tabulated into grades (on a curve, absolute scores, etc.)
    - Publicize UAF regulations with regard to the grades of "C" and below as applicable to this course. (Not required in the syllabus, but may be a convenient way to publicize this.)
    - Faculty Senate Meeting #171: http://www.uaf.edu/uafgov/faculty-senate/meetings/2010-2011-meetings/#171

11. Support Services:
    - Describe the student support services such as tutoring (local and/or regional) appropriate for the course.

12. Disabilities Services:
    - The Office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials.
    - State that you will work with the Office of Disabilities Services (208 WHITAKER BLDG, 474-5655) to provide reasonable accommodation to students with disabilities.

6/30/2011