

17-UNC revised

OCT 28 2015

FORMAT 1

Submit original with signatures + 1 copy + electronic copy to Faculty Senate (Box 7500).

See <http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/> for a complete description of the rules governing curriculum & course changes.

TRIAL COURSE OR NEW COURSE PROPOSAL
(Attach copy of syllabus)

SUBMITTED BY:

| | | | |
|---------------|-------------------|-----------------|--------------|
| Department | CEE | College/School | CEM |
| Prepared by | Nathan Belz | Phone | 907-474-5765 |
| Email Contact | npbelz@alaska.edu | Faculty Contact | Nathan Belz |

1. ACTION DESIRED

Trial Course New Course

2. COURSE IDENTIFICATION:

Dept Course # No. of Credits

Justify upper/lower division status & number of credits:

This course is meant to test a students' ability to apply the fundamental concepts learned in core courses and technical electives taken as part of the BSCE program in a field environment. One three-hour lab per week (no lectures) is sufficient to demonstrate field- and lab-based concepts; two weeks are allotted for each of the seven topic areas.

3. PROPOSED COURSE TITLE:

4. To be CROSS LISTED?

If yes, Dept: Course #

NOTE: Cross-listing requires approval of both departments and deans involved. Add lines at end of form for additional required signatures.

5. To be STACKED?*

If yes, Dept. Course #

How will the two course levels differ from each other? How will each be taught at the appropriate level?:

* Use only one Format 1 form for the stacked course (not one for each level of the course!) and attach syllabi. Stacked course applications are reviewed by the (Undergraduate) Curricular Review Committee and by the Graduate Academic and Advising Committee. Creating two different syllabi (undergraduate and graduate versions) will help emphasize the different qualities of what are supposed to be two different courses. The committees will determine: 1) whether the two versions are sufficiently different (i.e. is there undergraduate and graduate level content being offered); 2) are undergraduates being overtaxed?; 3) are graduate students being undertaxed? In this context, the committees are looking out for the interests of the students taking the course. Typically, if either committee has qualms, they both do. More info online – see URL at top of this page.

6. FREQUENCY OF OFFERING:

Fall, Spring, Summer (Every, or Even-numbered Years, or Odd-numbered Years) — or As Demand Warrants

7. SEMESTER & YEAR OF FIRST OFFERING (Effective AY2015-16 if approved by 3/31/2015; otherwise AY2016-17)

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.**

COURSE FORMAT: (check all that apply) 1 2 3 4 5 6 weeks to full semester

OTHER FORMAT(specify)

Mode of delivery (specify lecture, field trips, labs, etc)

9. CONTACT HOURS PER WEEK:

| | | | | | |
|--------------------------|------------------------|--------------------------------|-------------------|--------------------------|-------------------------|
| <input type="checkbox"/> | LECTURE hours/weeks | <input type="text" value="3"/> | LAB hours/week | <input type="checkbox"/> | 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.

OTHER HOURS (specify type)

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

CE471 Field Practicum 1.0cr (0+3)
Introduction to field data collection techniques used in civil engineering sub-disciplines such as structural, traffic, water, environmental, and materials; preliminary data analysis and descriptive statistics. Prerequisites: senior standing in CEE program or permission of instructor. Offered Fall.

11. COURSE CLASSIFICATIONS: Undergraduate courses only. Consult with CLA Curriculum Council to apply S or H classification appropriately; otherwise leave fields blank.

H = Humanities S = Social Sciences

| | | | | |
|-----------------------------------------------------------------------------------------------------------|------|--------------------------|-----|-------------------------------------|
| Will this course be used to fulfill a requirement for the baccalaureate core? If YES, attach form. | YES: | <input type="checkbox"/> | NO: | <input checked="" type="checkbox"/> |
|-----------------------------------------------------------------------------------------------------------|------|--------------------------|-----|-------------------------------------|

IF YES, check which core requirements it could be used to fulfill:

O = Oral Intensive, **Format 6** W = Writing Intensive, **Format 7** X = Baccalaureate Core

11.A Is course content related to northern, arctic or circumpolar studies? If yes, a "snowflake" symbol will be added in the printed Catalog, and flagged in Banner.

YES NO

12. COURSE REPEATABILITY:

Is this course repeatable for credit? YES NO

Justification: Indicate why the course can be repeated (for example, the course follows a different theme each time).

How many times may the course be repeated for credit? TIMES

If the course can be repeated for credit, what is the maximum number of credit hours that may be earned for this course? CREDITS

If the course can be repeated with variable credit, what is the maximum number of credit hours that may be earned for this course? CREDITS

13. GRADING SYSTEM: Specify only one. Note: Changing the grading system for a course later on constitutes a Major Course Change – Format 2 form.

LETTER: PASS/FAIL:

RESTRICTIONS ON ENROLLMENT (if any)

14. PREREQUISITES Senior standing in CEE program or permission of instructor
These will be *required* before the student is allowed to enroll in the course.

15. SPECIAL RESTRICTIONS, CONDITIONS

16. PROPOSED COURSE FEES \$ 25.00

Has a memo been submitted through your dean to the Provost for fee approval? Yes No (attached)

17. PREVIOUS HISTORY

Has the course been offered as special topics or trial course previously? Yes/No NO

If yes, give semester, year, course #, etc.:

18. ESTIMATED IMPACT

WHAT IMPACT, IF ANY, WILL THIS HAVE ON BUDGET, FACILITIES/SPACE, FACULTY, ETC.

This course will require six laboratory contact hours from select faculty in the CE department and will be counted as non-credit instructional activities. CE471 will be taking the place of the combined 1.0cr of the CE 490 and CE491 CE seminar so there is no net difference in the overall CE teaching effort needed. Course will require storage and maintenance of associated instrumentation as well as transportation of students to and from field sites.

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

Proposed course will not require any materials, collections, equipment, or services beyond that which is already used in other CE courses.

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)

Civil Engineering/School of Engineering and Mines. No impacts on other programs or departments are anticipated.

21. POSITIVE AND NEGATIVE IMPACTS

Please specify **positive and negative** impacts on other courses, programs and departments resulting from the proposed action.

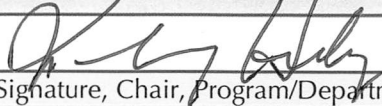
No impacts on other programs or departments are anticipated.

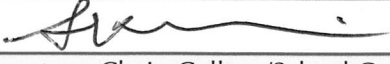
JUSTIFICATION FOR ACTION REQUESTED


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.

The nature of Civil Engineering requires those in the profession to be knowledgeable and experienced with working in a field environment. This course will improve the connection between classroom concepts and practical real-world field applications. This proposed course directly targets ABET outcome criteria K: ability to use techniques, skills, and modern engineering tools necessary for practice.

APPROVALS: Add additional signature lines as needed.

| | | |
|-----------------------------------------------------------------------------------|------|-----------|
|  | Date | 9/25/2015 |
| Signature, Chair, Program/Department of: _____ | | |

| | | |
|-----------------------------------------------------------------------------------|------|---------|
|  | Date | 9-28-15 |
| Signature, Chair, College/School Curriculum Council for: <u>CEM</u> | | |

| | | |
|-----------------------------------------------------------------------------------|------|---------|
|  | Date | 10/5/15 |
| Signature, Dean, College/School of: <u>CEM</u> | | |

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

| | | |
|------------------------------------------------------------|------|-------|
| _____ | Date | _____ |
| Signature of Provost (if above level of approved programs) | | |

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

| | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|
| _____ | Date | _____ |
| Signature, Chair Faculty Senate Review Committee: <input type="checkbox"/> Curriculum Review <input type="checkbox"/> GAAC <input type="checkbox"/> Core Review <input type="checkbox"/> SADAC | | |

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

| | | |
|-------|------|-------|
| _____ | Date | _____ |
|-------|------|-------|

Signature, Chair, Program/Department of: _____

| | | |
|-------|------|-------|
| _____ | Date | _____ |
|-------|------|-------|

Signature, Chair, College/School Curriculum Council for: _____

| | | |
|-------|------|-------|
| _____ | Date | _____ |
|-------|------|-------|

Signature, Dean, College/School of: _____

Notes re original submission:

Sk's notes on syllabus:

- 1) campus CRC will most likely ask for a detailed Lab plan.*
- 2) campus CRC will definitely ask how pass vs fail will be determined.*

RE: CE471 – Field Practicum - Course Fee Justification

This memo is intended to provide justification for the \$25.00 course fee to be associated with the newly proposed CE471 – Field Practicum course. This course will require storage and maintenance of instrumentation that will be used by the students in the field as well as requiring transportation of students to and from field sites. Though this course fee is not expected to completely offset the full cost of these items, it is intended to ensure at least minimal impact on the department and the university while providing this valuable learning experience. Since a textbook will not be required for this course, the small fee is not considered an exorbitant addition to the overall cost incurred by students.

CE 471 Field Practicum

Tentative Fall 2016 Course Syllabus (updated October 28, 2015)

| | |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Instructor | Dr. Leroy Hulsey jlhulsey@alaska.edu |
| Labs | 3hrs (time and location TBD) |
| Office Hours | (time and location TBD) |
| Catalog Data | CE F471 |
| Course Title | Field Practicum |
| Prerequisites | Senior standing in CEE program or permission of instructor. |
| Catalog Description | Introduction to field data collection techniques used in civil engineering sub-disciplines such as structural, traffic, water, environmental, and materials; preliminary data analysis and descriptive statistics. |
| Credit | 1.00 semester hours |
| Textbook and Readings | There is no required textbook for this course; readings, lab instructions, and instrumentation manuals will be distributed as needed. |
| Course Objectives | Provide students with engineering experience through field and laboratory exercises; engage students with practical collection methods in a real-world environment; strengthen students' ability to work in a team environment. |
| Student Learning Outcomes | Upon completing this course students will be able to apply techniques, skills, and modern engineering tools that are necessary for engineering practice in a real-world setting. |
| Communication | Outside of scheduled lectures & office hours, email is the official form of communication. Students are expected to check their UAF email accounts for course updates as it will be used for general announcements and distribution of course materials as necessary. |

CE 471 Field Practicum

Tentative Fall 2016 Course Syllabus (updated October 28, 2015)

Grading

Pass/fail. Students must illustrate their proficiency in field methods and techniques and will be evaluated based on the following:

| | Pass | Fail |
|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Attendance/Participation (20%) <i>Must be present at and contribute to all lab/field days unless extenuating circumstances exist</i> | Student participated fully in discussion and activities | Student rarely showed up for class or participated in discussion |
| Team Field Data Collection Assignments (25%) <i>Demonstrates an ability to work in a team environment</i> | Student participated in the assignment and was open to feedback and suggestions from the instructor and fellow students | Student struggled with criticism and feedback, did not communicate well, and did not sufficiently participate |
| Individual Laboratory Data Processing Assignments (25%) <i>Demonstrates an ability to process field samples and work independently</i> | Evidence of capable field work and goals of the project were met | No or insufficient evidence of capabilities or assignment not completed |
| Lab Reports (30%) <i>Demonstrates an ability to interpret data and present findings in a clear and logical manner</i> | Report was incomplete and overall presentation was of poor quality | Report was complete, used proper figures and tables, and demonstrated strong communications skills |

Academic Integrity

Students are expected to and should strictly comply with UAF's [Student Code of Conduct](#). Offenses against the Code of Academic Integrity and Student Code of Conduct are deemed serious and insult the integrity of the entire academic community. Any suspected violations of the code are taken very seriously. Further university policies addressing plagiarism, fabrication, collusion, and cheating can be found on pp. 50-52 in [Academics and Regulations](#). Any student found violating these codes will be given an automatic failing grade for that assignment. More than one violation will result in a failing grade for the course and will involve disciplinary action.

Disabilities Services

If you have a formal accommodation plan developed in conjunction with the [UAF Center for Health and Counseling](#) office please contact me as soon as possible at the start of the semester. If you would like to learn more about your options, these services, or discuss the supports that you need in order to learn well in this class, please contact the coordinator of [Disability Services](#) at 474-5655.

Support Services

Students are encouraged to take advantage of the [UAF Writing Center](#) (located in 801 Gruening) is staffed with English Department teaching assistants and undergraduate students that can assist you in all phases of the writing process. In addition, the [UAF Math Lab](#) offers advice, tutoring, and assistance for classes involving mathematics and statistics.

CE 471 Field Practicum

Tentative Fall 2016 Course Syllabus (updated October 28, 2015)

TENTATIVE FALL 2016 SCHEDULE

| Week | Activity / Content |
|-------------|--------------------------------------------------------------------------------------------|
| 1 | Field Day 1: Asphalt Pavement and Concrete Sampling (Dr. Jenny Liu) |
| 2 | Lab Day 1: Asphalt Pavement and Concrete Sampling (Dr. Jenny Liu) |
| 3 | Field Day 2: Hydrologic Measurements (Dr. Sveta Stuefer) Lab Report 1 Due |
| 4 | Lab Day 2: Hydrologic Measurements (Dr. Sveta Stuefer) |
| 5 | Field Day 3: Groundwater Sampling (Dr. David Barnes) Lab Report 2 Due |
| 6 | Lab Day 3: Groundwater Sampling (Dr. David Barnes) |
| 7 | Field Day 4: Bridge and Structural Health Monitoring (Dr. Il-Sang Ahn) Lab Report 3 Due |
| 8 | Lab Day 4: Bridge and Structural Health Monitoring (Dr. Il-Sang Ahn) |
| 9 | Field Day 5: Traffic Data Collection (Dr. Nathan Belz) Lab Report 4 Due |
| 10 | Lab Day 5: Traffic Data Collection (Dr. Nathan Belz) |
| 11 | Field Day 6: Frozen Soils and Arctic Issues (Dr. Yuri Shur) Lab Report 5 Due |
| 12 | Lab Day 6: Frozen Soils and Arctic Issues (Dr. Yuri Shur) |
| 13 | Field Day 7: Air Quality Measurements (Dr. Srijan Aggarwal) Lab Report 6 Due |
| 14 | Lab Day 7: Air Quality Measurements (Dr. Srijan Aggarwal) |
| 15 | Course Recap / Final Presentations Lab Report 7 Due |
