

Submit originals (including syllabus) and one copy and electronic copy to the **Faculty Senate Office**
 See <http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/> for a complete description of the rules governing curriculum & course changes.

CHANGE COURSE (MAJOR) and DROP COURSE PROPOSAL

Attach a syllabus, except if dropping a course.

SUBMITTED BY:

| | | | |
|---------------|--|-----------------|-------------------------|
| Department | Civil and Environmental Engineering | College/School | CEM |
| Prepared by | William Schnabel | Phone | 907-474-7789 |
| Email Contact | weschnabel@alaska.edu | Faculty Contact | William Schnabel |

1. COURSE IDENTIFICATION: As the course now exists.

| | | | | | |
|------|-------------|----------|-------------|----------------|----------|
| Dept | ENVE | Course # | F650 | No. of Credits | 1 |
|------|-------------|----------|-------------|----------------|----------|

| | |
|---------------------|------------------------|
| COURSE TITLE | Advanced Topics |
|---------------------|------------------------|

2. ACTION DESIRED: ✓ Check the changes to be made to the existing course.

| | | | | |
|---------------|-------------------------------------|---|-------------|--------------------------|
| Change Course | <input checked="" type="checkbox"/> | If Change, indicate below what is changing. | Drop Course | <input type="checkbox"/> |
|---------------|-------------------------------------|---|-------------|--------------------------|

| | | | | | |
|-----------------------|-------------------------------------|------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| NUMBER | <input checked="" type="checkbox"/> | TITLE | <input checked="" type="checkbox"/> | DESCRIPTION | <input checked="" type="checkbox"/> |
| PREREQUISITES* | <input type="checkbox"/> | FREQUENCY OF OFFERING | | <input type="checkbox"/> | <input type="checkbox"/> |

*Prerequisites will be *required* before a student is allowed to enroll in the course.

| | | | |
|--|----------------------------|------------------------------|--------------------------|
| CREDITS (including credit distribution) | Change to 3 credits | COURSE CLASSIFICATION | <input type="checkbox"/> |
| ADD A STACKED LEVEL (400/600) Include syllabi. | <input type="checkbox"/> | Dept. | <input type="checkbox"/> |
| | | Course # | <input type="checkbox"/> |

| | |
|---|--------------------------|
| How will the two course levels differ from each other? How will each be taught at the appropriate level?: | <input type="checkbox"/> |
|---|--------------------------|

| | | | | |
|------------------------------------|--|-------------|--------------------------|---|
| ADD NEW CROSS-LISTING | <input type="checkbox"/> | Dept. & No. | <input type="checkbox"/> | Requires approval of both departments and deans involved. Add lines at end of form for additional signatures. |
| STOP EXISTING CROSS-LISTING | <input type="checkbox"/> | Dept. & No. | <input type="checkbox"/> | Requires notification of other department(s) and mutual agreement. Attach copy of email or memo. |
| OTHER (specify) | Students are currently required to take two semesters of this one credit course. We intend to increase the course to three credits and have the students take the course only once. | | | |

3. 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 and the appropriate Faculty Senate curriculum committee. Furthermore, any core course compressed to less than six weeks must be approved by the Core Review Committee.

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|--|------------------------------------|----------|--------------------------|----------|--------------------------|----------|--------------------------|----------|--------------------------|----------|-------------------------------------|---------------------------------|
| COURSE FORMAT: (check <u>all</u> that apply) | <input type="checkbox"/> | 1 | <input type="checkbox"/> | 2 | <input type="checkbox"/> | 3 | <input type="checkbox"/> | 4 | <input type="checkbox"/> | 5 | <input checked="" type="checkbox"/> | 6 weeks to full semester |
| OTHER FORMAT (specify all that apply) | | | | | | | | | | | | |
| Mode of delivery (specify lecture, field trips, labs, etc.) | Lecture and workshop format | | | | | | | | | | | |

4. **COURSE CLASSIFICATIONS:** (undergraduate courses only. Use approved criteria found in Chapter 12 of the curriculum manual. If justification is needed, attach separate sheet.)

| | | | |
|----------------|--|---------------------|--|
| H = Humanities | | S = Social Sciences | |
|----------------|--|---------------------|--|

| | | | | |
|---|-----|--|----|--|
| Will this course be used to fulfill a requirement for the baccalaureate core? | YES | | NO | |
|---|-----|--|----|--|

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

| | | | | | |
|---|--|--|--|------------------------|--|
| O = Oral Intensive, *Format 6 also submitted | | W = Writing Intensive, *Format 7 submitted | | X = Baccalaureate Core | |
|---|--|--|--|------------------------|--|

- 4.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 | x |
|-----|----|---|

5. **COURSE REPEATABILITY:**

| | | | | |
|---------------------------------------|-----|--|----|---|
| Is this course repeatable for credit? | YES | | NO | x |
|---------------------------------------|-----|--|----|---|

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

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How many times may the course be repeated for credit?

| | |
|--|-------|
| | TIMES |
|--|-------|

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 |
|--|---------|

6. **COMPLETE CATALOG DESCRIPTION** including dept., number, title, credits, credit distribution, cross-listings and/or stacking, clearly showing the changes you want made. (Underline new wording ~~strike through old wording~~ and use complete catalog format including dept., number, title, credits and cross-listed and stacked.)

Example of a complete description:

PS F450 Comparative ~~Aboriginal~~ Indigenous Rights and Policies (s)

3 Credits

Offered As Demand Warrants

~~Case study~~ Comparative approach in ~~assessing Aboriginal to analyzing Indigenous~~ rights and policies in different nation-state systems. ~~Seven Aboriginal situations~~ Multiple countries and specific policy developments examined for factors promoting or limiting self-determination. Prerequisites: Upper division standing or permission of instructor. (Cross-listed with ANS F450.) (3+0)

~~ENVE 650 Advanced Topics~~ CE F601 Engineering Research Communication

~~1 3 Credits~~ Offered Fall Spring

~~Presentations by students, faculty, and outside experts on~~ Oral and written communication techniques to describe research results on current issues in engineering and engineering-related sciences. ~~Course may be repeated twice for credit.~~ Prerequisites: Graduate Standing. (~~1 3~~+0)

7. **COMPLETE CATALOG DESCRIPTION AS IT SHOULD APPEAR AFTER ALL CHANGES ARE MADE:**

CE F601 Engineering Research Communication

3 Credits Offered Spring

Oral and written communication techniques to describe research results on current issues in engineering and engineering-related sciences.

Prerequisites: Graduate Standing. (3+0)

8. **GRADING SYSTEM:** Specify only one.

| | | | |
|---------|---|------------|--|
| LETTER: | x | PASS/FAIL: | |
|---------|---|------------|--|

9. **ESTIMATED IMPACT**

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

No impact on budget, faculty, or space resources.

10. 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 ☒ Yes ☐ Library services will not be required.

11. 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 represents a change to a course previously required for the Environmental Engineering / Environmental Quality Science graduate program housed in Civil and Environmental Engineering. (Note that this graduate program is currently under consideration for restructuring, but any changes to the program will retain the requirement for the course described in this application.) The Department of Civil and Environmental Engineering faculty voted on 9/10/15 that all Master's level graduate degrees offered by CEE will list this course as a required or recommended component of their program. Faculty members associated with the CEE graduate program have initiated this proposed change to the course.

12. POSITIVE AND NEGATIVE IMPACTS

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


While the current course focuses on oral communication of research results, the updated course will focus on oral and written communication of research results. Inclusion of written communication will have a positive impact upon the CEE department because it will improve the quality of thesis work. Moreover, we anticipate that the course will attract students from other graduate programs within CEM. Student response to test runs of this course have been positive. In both previous test runs, the combined median IAS scores (items 1-4) were 4.8.


13. 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. If you ask for a change in # of credits, explain why; are you increasing the amount of material covered in the class? If you drop a prerequisite, is it because the material is covered elsewhere? If course is changing to stacked (400/600), explain higher level of effort and performance required on part of students earning graduate credit. Use as much space as needed to fully justify the proposed change and explain what has been done to ensure that the quality of the course is not compromised as a result.

The existing course is intended to instruct students in the formulation of their research data and provide guidance on delivering those results in oral presentations. Engineering Research Communication will incorporate those components, but will also provide instruction on the formulation of research data into written form. We believe that incorporating the written component will enhance the students' understanding of their own research results, thus improving their ability to communicate those results orally. Moreover, incorporation of the written component will also enhance their education by providing effective strategies for composing their theses. While the course was previously offered as a one credit course designed to be taken twice, we believe that increasing it to a three credit course designed to be taken once is necessary in order to accommodate the increase in scope.

APPROVALS: (Forms with missing signatures will be returned. Additional signature blocks may be added as necessary.)

| | | |
|---|------|------------|
|  | Date | 10/12/2015 |
| Signature, Chair, Program/Department of: | | |

| | | |
|---|------|----------|
|  | Date | 10/12/15 |
| Signature, Chair, College/School Curriculum Council for: CEM | | |

| | | |
|---|------|---------|
|  | Date | 1/21/15 |
| Signature, Dean, College/School of: CEM | | |

Offerings above the level of approved programs must be approved in advance by the Provost (e.g., non-graduate level program offering of a 600-level course):

| | | |
|--------------------------------------|------|--|
| | Date | |
| Signature of Provost (if applicable) | | |

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; add more blocks as necessary.)

| | | |
|--|------|--|
| | Date | |
| Signature, Chair, Program/Department of: | | |

| | | |
|--|------|--|
| | Date | |
| Signature, Chair, College/School Curriculum Council for: | | |

| | | |
|-------------------------------------|------|--|
| | Date | |
| Signature, Dean, College/School of: | | |

Note: If removing a cross-listing, you may attach copy of email or memo to indicate mutual agreement of this action by the affected department(s).

If degree programs are affected, a Format 5 program change form must also be submitted.

RECEIVED
2015
Provost's Office
& Planning & Assessment

ATTACH COMPLETE SYLLABUS (as part of this application). This list is online at:

<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 are 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 is a convenient way to publicize this.) Link to PDF summary of grading policy for "C":

http://www.uaf.edu/files/uafgov/Info-to-Publicize-C_Grading-Policy-UPDATED-May-2013.pdf

11. Support Services:

☐ Describe the student support services such as tutoring (local and/or regional) appropriate for the course.

12. Disabilities Services: Note that the phone# and location have been **updated**. <http://www.uaf.edu/disability/> The Office of Disability Services implements the Americans with Disabilities Act (ADA), and ensures 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.

5/21/2013

Course Information

CE F601: Engineering Research Communication

3.0 Credits

Contact hours: 3+0

Prerequisites: Graduate Standing

Meets Thursdays, 5:30 pm – 8:30 pm

Duckering 331

Instructor Information

Instructor: Dr. William E. Schnabel

Office: Duckering 437A

Office Hours: Thursday 3-5 pm

Phone: 907-474-7789

Email: weschnabel@alaska.edu

Course Reading Materials

Required Textbook: Beer, D. and McMurrey, D. Guide to Writing as an Engineer, 4th Edition, Published by Wiley.

Supplementary Textbook: Schimel, J. 2012. Writing Science: How to write papers that get cited and proposals that get funded. Oxford University Press, 221 pp.

Course Description

Oral and written communication techniques to describe research results on current issues in engineering and engineering-related sciences.

Effective engineering research communication contains concise, descriptive representations of well-considered thought processes, activities, and results that support a set of objective conclusions. This course will provide techniques for communicating written and oral research results describing current issues in environmental science and engineering. As the course is designed to guide graduate students through the process of transforming their research results into well-crafted manuscripts and oral presentations, students taking the course are expected to have completed a significant portion of their thesis research prior to enrolling in the course.

Course Goals:

The goals of this course are to:

- develop or refine student skills necessary to evaluate and prioritize research results;
- develop or refine student skills necessary to effectively communicate engineering research results;
- produce comprehensive first drafts of written research results; and
- produce comprehensive oral presentations of research results.

Student Learning Outcomes

By the end of the course, the student will:

- understand how to interpret his/her own research results and determine which portion(s) of those results will form the most compelling narrative for publication or presentation;
- be able to formulate an effective outline/structure upon which to build;
- understand the standard grammatical conventions used in engineering research writing, and be able to identify reliable sources of guidance for further reference;
- craft a well-reasoned first draft of a research paper based upon the students' own work;
- provide constructive editorial feedback to successive drafts of other students' work; and
- compose and deliver an effective technical presentation describing the students' own engineering research results.

Instructional Methods

- Class time will be divided between lecture, small group discussion, and student presentation.
- The instructor will generally begin each class session with a lecture on the weekly topic (e.g., organization, style, table/figure management, etc.) The lecture will be followed by in-class exercises designed to help the students formulate their own work or critique the work of others.
- Students will typically review one published research article per week for content, style, and format. The critical reviews (1 page or less) will be submitted at the beginning of class each week.
- Students will critically review each other's draft papers and presentations at varying stages of completion during the semester.
- Students will prepare a final paper intended to be submitted as a thesis chapter or peer-reviewed publication at the conclusion of the course. The students need not actually submit the paper or thesis chapter to the publishing entity in order to receive credit for the course.
 - A rough draft will constitute the mid-term exam
 - A final draft will constitute the final exam

Course Calendar

- | | |
|-------------|---|
| Week 1 : | Class introduction; outlining the work <ul style="list-style-type: none"> · Concepts: Beer and McMurrey Chapters 1,2; Schimel Chapter 2 · Assign Critical Review (CR)#1 |
| Week 2: | Developing the Methods section <ul style="list-style-type: none"> · Concepts: Beer and McMurrey Chapters 5, 6 · Submit CR#1, Assign CR #2 · Assign Methods outline |
| Week 3-4: | Developing the Results section (figures, tables, statistics) <ul style="list-style-type: none"> · Concepts: Beer and McMurrey Chapters 5, 6 · In-class review of Methods outline · Assign Results outline · Submit CR#2, Assign CR#3 |
| Week 5: | Developing the Introduction section <ul style="list-style-type: none"> · Concepts: Schimel Chapter 5 – 7 · In-class review of Results outline · Assign Introduction outline · Submit CR#3, Assign CR#4 |
| Weeks 6-7: | Developing the Discussion/Conclusion sections <ul style="list-style-type: none"> · Concepts: Schimel Chapters 8, 9 · In-class review of Introduction outline · Assign Discussion/Conclusions outline · Submit CR#4, Assign CR#5 |
| Week 8: | Assembling the paper/presentation: Flow, style, abstract, and “hook.” <ul style="list-style-type: none"> · Concepts: Schimel Chapters 3, 4 · In-class review of Discussion/Conclusions outline · Assign Initial First Draft outline (tying it all together) · Submit CR#5, Assign CR#6 · Introduce Beer and McMurrey Chapter 8 – Assign Oral presentations |
| Week 9: | Formatting the paper (literature cited, etc.) <ul style="list-style-type: none"> · Concepts: Beer and McMurrey Chapter 3 · Self-edit workshop on Initial First Draft Outline · Submit CR#6, Assign CR#7 |
| Week 10-11: | Oral Presentations <ul style="list-style-type: none"> · Concepts: Beer and McMurrey Chapter 8 · Provide individual presentations · Conduct critical review of classmate presentations · Submit CR#7 (Week 10) |

- Assign CR#8 (Week 11)
- Week 12: Submission and in-class review of Initial First Drafts
 - Submit Initial First Drafts
 - In-class critical review of student work
 - Submit CR#8, Assign CR#9
- Weeks 13: Editing and revising
 - Concepts: Beer and McMurrey Chapter 3; Schimel Chapters 17, 18
 - Return Initial First Drafts with comments
 - Editing workshop
 - Submit CR#9, Assign CR#10
- Week 14: Writing for grants and outreach
 - Concepts: Beer and McMurrey Chapter 9; Schimel Chapter 19
 - Submit CR#10
- Week 15: Submit and in-class review of Final First Drafts
 - In-class critical review of student work
 - Course concluding comments

Course Policies

Students are expected to attend each class meeting. When an absence is unavoidable, students should contact the instructor preferable prior to the missed class. Students are expected to adhere to the Academic Code of Honor as outlined in the University of Alaska Catalog. A note on borrowing: remember that copying from an author without attribution is plagiarism; using the ideas and results of many with attribution and clear acknowledgement of the source(s) is the first step toward research. Students that are found to have plagiarized will fail the class. See UAF's Academics and Regulations webpage for more information on your rights and responsibilities: <http://www.uaf.edu/catalog/current/academics/regs3.html>

Evaluation

Grading will be as follows:

- 20% Critical reviews of published papers (almost weekly)
- 20% In-class and/or take home exercises
- 20% Oral presentations (1 presentation per student)
- 20% Mid Term (initial first draft of manuscript)
- 20% Final (completed first draft of manuscript)

Grading Scale:

- A (90-100)
- B (80-89)
- C (70-79)
- D (60-69)
- F (59 and down)

General Grading Rubric (Written Communication):

| Performance Criteria | Requires Major Improvement <60 pts | Requires Minor Improvement 61-70 pts | Meets Criteria 71-85 pts | Exceeds Criteria 86 - 100 pts |
|--|---|---|---|---|
| <i>Content: writing is clear and logical, argument well supported</i> | Subject/position unclear, repetitious, lacks supporting evidence, no conclusion | Little introduction, lapses in logic, poor conclusion | Clear purpose, maintains logic, provides conclusions | Clear purpose, effective unifying conclusion |
| <i>Organization: clear structure and appropriate use of paragraphs</i> | Structure missing, paragraphing not appropriate | Structure evident but some breaks, paragraphs not always coherent | Clear appropriate structure, appropriate paragraphing | Clear, effective structure, coherence between paragraphs and cohesion between sentences |
| <i>Wording: appropriate word choice and grammar</i> | Incorrect vocabulary, grammatical mistakes interfere with understanding | Simple vocabulary, numerous grammatical mistakes | Appropriate vocabulary, grammar generally correct | Sophisticated vocabulary, grammar completely correct |
| <i>Spelling and punctuation</i> | Spelling and punctuation errors interfere with understanding | Numerous spelling and punctuation errors | Generally correct spelling and punctuation | Completely correct spelling, correct and effective punctuation |

General Grading Rubric (Oral Communication):

| Performance Criteria | Requires Major Improvement < 60 pts | Requires Minor Improvement 61 – 70 pts | Meets Criteria 71 – 85 pts | Exceeds Criteria 86 – 100 pts |
|---|---|--|--|--|
| <i>Visual aids clear, concise and attractive, with good use of figures/tables</i> | Slides very difficult to read, too much or too little info on slides, no useful figures | Slides sometimes difficult to read, sometimes too wordy, ineffective figures | Slides clear, good design, appropriate amount of text, useful figures | Superior clarity and design, perfect amount of text to enhance communication, illustrative figures |
| <i>Speaking style: clear voice, good interaction with audience</i> | Hard to hear, no eye contact, distracting gestures, non-responsive | Hard to hear or monotonous, poor eye contact, evasive or inaccurate answers | Clear well-paced voice, maintain eye contact, good gestures, clear answers | Very clear and engaging voice, eye contact with entire audience, excellent gestures and answers |

Support Services

Additional writing support can be obtained at the UAF Writing Center.

<http://www.uaf.edu/english/writing-center/>

Disabilities Services

The University of Alaska provides equal access for all students with disabilities. The Office of Disabilities Services Implements the Americans with Disabilities Act (ADA) to ensure that all students have equal access to campus facilities and course material.

Please advise in writing if you need special consideration. If you have questions, please contact the Office of Disabilities Services at (907) 474-5655.