Submit original with signatures + 1 copy + electronic copy to UAF Governance. See http://www.uaf.edu/uafgov/faculty/cd for a complete description of the rules governing curriculum & course changes.

### TRIAL COURSE OR NEW COURSE PROPOSAL

<table>
<thead>
<tr>
<th>SUBMITTED BY:</th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>Civil and Environmental Eng.</td>
<td>College/School</td>
<td>CEM</td>
<td></td>
</tr>
<tr>
<td>Prepared by</td>
<td>Robert Perkins</td>
<td>Phone</td>
<td>474 7694</td>
<td></td>
</tr>
<tr>
<td>Email Contact</td>
<td><a href="mailto:raperkins@alaska.edu">raperkins@alaska.edu</a></td>
<td>Faculty Contact</td>
<td></td>
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**1. ACTION DESIRED**

(CHECK ONE):

- Trial Course
- New Course [X]

**2. COURSE IDENTIFICATION**

<table>
<thead>
<tr>
<th>Dept</th>
<th>CE</th>
<th>Course #</th>
<th>No. of Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE</td>
<td>F653C</td>
<td>1</td>
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</table>

Justify upper/lower division status & number of credits:

Course is intended for professional students who are college graduates. Credits are based on contact minutes and content. They are roughly one-third of a regular three-credit graduate course.

**3. PROPOSED COURSE TITLE:**

Project Controls

**4. To be CROSS LISTED?**

YES/NO [No]

If yes, Dept: [ ] Course # [ ]

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

**5. To be STACKED?**

YES/NO [No]

If yes, Dept: [ ] Course # [ ]

**6. FREQUENCY OF OFFERING:**

As demand warrants

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

**7. SEMESTER & YEAR OF FIRST OFFERING (if approved)**

As demand warrants

**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: (check all that apply)</th>
<th>1</th>
<th>2</th>
<th>X</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6 weeks to full semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTHER FORMAT (specify)</td>
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<td></td>
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<tr>
<td>Mode of delivery (specify lecture, field trips, labs, etc)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Lectures</td>
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</table>

**9. CONTACT HOURS PER WEEK:**

<table>
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<tr>
<th>4.5 LECTURE hours/week</th>
<th>LAB hours/week</th>
<th>PRACTICUM hours/week</th>
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Note: # of credits are based on contact hours. 900 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/cd/credits.html for more information on number of credits.

OTHER HOURS (specify type) | N/A
10. COMPLETE CATALOG DESCRIPTION including dept., number, title and credits (50 words or less, if possible):

CE F653C, Project Controls, 1 credit
Use of project monitoring and control systems to track the elements of project: cost, schedule, and production/quality. Including are physical asset control, human resource control, financial resource control. Feedback from control to management, reporting.

11. COURSE CLASSIFICATIONS: (undergraduate courses only. Use approved criteria found on Page 10 & 17 of the manual. If justification is needed, attach on 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 [ ] W = Writing Intensive, Format 7 [ ]
Natural Science, Format 8 [ ]

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 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.

LETTER: X [ ] PASS/FAIL: [ ]

14. PREREQUISITES None

These will be required before the student is allowed to enroll in the course.

RECOMMENDED Admission to the Graduate Certificate in Construction Management program

Classes, etc. that student is strongly encouraged to complete prior to this course.

15. SPECIAL RESTRICTIONS, CONDITIONS

16. PROPOSED COURSE FEES $

Has a memo been submitted through your dean to the Provost & VCAS for fee approval? Yes/No [ ]

17. PREVIOUS HISTORY

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

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

18. ESTIMATED IMPACT

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

These courses were approved by the Board of Regents for special tuition and are expected to be self-supporting

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
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)

<table>
<thead>
<tr>
<th>No</th>
<th>Yes</th>
<th>No library involvement</th>
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<tr>
<td>X</td>
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The Graduate Certificate in Construction Management and its courses was approved by the CEE faculty and the CEM dean.

21. **POSITIVE AND NEGATIVE IMPACTS**

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

This course follows the New Degree Program Request which examined the growth in the CEE department. No additional positive or negative impacts from this course are likely.

**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.

This course is part of a UAF CEE outreach to package our graduate classes in a way that is convenient to students and their employers. This outreach was formalized in a New Degree Program Request for a Graduate Certificate in Construction Management which was approved by the UA Board of Regents in September 2009. The courses in this program grew out of a needs assessment by UAF CEE of Alaska engineering employers, including governments, consultants, and contractors, that indicated that courses of about one credit's intensity were best. The classes are being taught by UAF faculty, emeritus faculty, or appropriate adjuncts approved by the CEE faculty and Chair. All classes feature an assessment process: tests, reports, presentations, and/or graded homework.

**APPROVALS:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Signature, Chair, Program/Department of:</th>
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<table>
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<tr>
<th>Date</th>
<th>Signature, Chair, College/School Curriculum Council for:</th>
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<tr>
<th>Date</th>
<th>Signature, Dean, College/School of:</th>
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<tr>
<th>Date</th>
<th>Signature of Provost (if applicable)</th>
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</table>
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, UAF Faculty Senate Curriculum Review Committee | Date |

**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 |
Outline Syllabus

Project Controls

1. Course information:

Project Controls, CE F653C, One credit,
Prerequisites: Recommended Admission to the Graduate Certificate in Construction Management Program.

Location and Meeting Time will be specific to each offering of the course.

2. Instructor (and if applicable, Teaching Assistant) information:

Instructors Name, Office Location, Office Hours, as well as Telephone and Email contact information will be specific to each offering of the course.

3. Course readings/materials:

Handout of text material and assigned materials students will download from the Internet.

4. Course description:

Use of project monitoring and control systems to track the elements of project: cost, schedule, and production/quality. Including are project monitoring and information systems, physical asset control, human resource control, financial resource control and project auditing. Feedback from control to management, reporting.

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

Improve the student’s skills in managing construction and project scheduling and controls.

6. Student Learning Outcomes (more specific)

Student will be able to understand the basics of monitoring, control, and reporting based on standard procedures and software. Understand the interrelation of project objectives, milestones, budgets and reporting. The use of cybernetic controls, go-no go controls and post controls for multiple projects. Student will be able to write the project monitoring and controls section of a project management plan.

7. Instructional methods:

Face to face lecture and remote lectures via video conferencing, student presentations and reports. Students will use the Internet to download some instruction material.

8. Course calendar:
Class 1
Introduction. What are project controls and how are they used? How the control methods varies with project type, project stage, and project owner/manager. Baseline data: WBS, schedule, budget. Earned value analysis.

Class 2
Variations to baseline: delays, owner requested changes, contractor requested changes, hidden changes in scope. Routine reporting, software, supporting contact clauses and contract management procedures.

Class 3
Controlling contractors, sub contractors and suppliers, controlling independent contractors without directing their methods and means. Necessary project contract clauses. Case studies

Class 4
Management issues. Meetings, negotiations, changes to schedule and budget. Go/no go decisions. Flow charting from CPM. “Controlling” within our own organization.

Class 5
Auditing and project wrap-up. What is in a good audit report and what is not. Ethical issues.

Class 6
Class Presentations

9. Course policies:

Due to the limited number of classes, attendance and class participation is expected in all classes, unless arranged otherwise with the instructor, and will be considered in determining final grade. Plagiarism will not be tolerated.

10. Evaluation:

The final grade will be determined on the following basis:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Final presentation (written)</td>
<td>30%</td>
</tr>
<tr>
<td>Quiz</td>
<td>20%</td>
</tr>
<tr>
<td>Class participation</td>
<td>13%</td>
</tr>
<tr>
<td>Attendance (6 @2%)</td>
<td>12%</td>
</tr>
</tbody>
</table>

11. Support Services:

Administrative services for the course are provided by the Center for Distance Education 907-479-4757 and technical assistance by Video Conferencing Services 1-800-910-9601.

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. We will work with the Office of Disabilities Services (208 WHIT, 474-5655) to provide reasonable accommodation to students with disabilities.