FORMAT 1

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

SUBMITTED BY:

Department	**Civil and Environmental Eng.**	**College/School**	**CEM**
Prepared by	**Robert Perkins**	**Phone**	**474 7694**
Email Contact	**raperkins@alaska.edu**	**Faculty Contact**	**Robert Perkins**

1. ACTION DESIRED (CHECK ONE):	Trial Course		New Course	X	
2. COURSE IDENTIFICATION:	Dept	**CE**	Course #	**F654C**	No. of Credits **1**
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:	Advanced Dirt Estimating				
4. To be CROSS LISTED? *YES/NO*	**No**	If yes, Dept:		Course #	
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.

COURSE FORMAT: (check all that apply)		*1*		*2*	X	*3*		*4*		*5*		*6 weeks to full semester*
OTHER FORMAT (specify)	**Two 2 hour and 15 minute lectures per week for three weeks delivered face-to-face or via video conferencing.**										
Mode of delivery (specify lecture, field trips, labs, etc)	**Lectures**										

9. CONTACT HOURS PER WEEK:	**4.5**	LECTURE hours/weeks		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/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 F654C, Advanced Dirt Estimating**, 1 credit**
This course will cover simple methods to quantize and monitor field excavation/fill quantities, including basic earth moving measurements. Topics include: using "traditional" survey control, mass balance haul, planning excavation and fill, GPS data utilization, and field modifications for change orders and permits.

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** [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:** [ ]

RESTRICTIONS ON ENROLLMENT (if any)

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** Yes

If yes, give semester, year, course #, etc.: March 2010, CE 693

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

resolution. If not, explain why not.

No	x	Yes		**No library involvement**

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)

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:

	Date	
Signature, Chair, Program/Department of:		
	Date	
Signature, Chair, College/School Curriculum Council for:		
	Date	
Signature, Dean, College/School of:		
	Date	
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

	Date	
Signature, Chair, UAF Faculty Senate Curriculum Review Committee		

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:		

Course Syllabus – CE 654C Working with dirt (quantity estimating for heavy construction)

March and April 2010

1. Course Information

Working with dirt (quantity estimating for heavy construction), CE 654C. 1 credit. Prerequisites (recommended): BS in engineering, science, or any college degree with construction experience. Location: Video Conference Room, 2nd floor, UAF Center for Distance Education, corner University Avenue and Davis Road, Fairbanks and remote location in Anchorage. Meeting times: 3:00 to 5:15 PM, Wednesdays & Mondays, March 22, 24, and 31. April 5, 7, and 12.

2. Instructor

Anthony W. Nelson, P.E. Office: Duckering 233 Office hours: After class or as arranged with instructor (907) 479-2593 or tnelson@mosquitonet.com

3. Course readings/materials

There is no required textbook. There will be paper handouts and/or electronic references. Students will be required to download computer programs from web. Students will be required to bring a laptop to class.

4. Course description

This course will cover simple methods to quantize and monitor field excavation/fill quantities, including basic earth moving measurements. Topics include: using "traditional" survey control, mass balance haul, planning excavation and fill, GPS data utilization, and field modifications for change orders and permits.

5. Course Goals (General):

To be proficient at utilizing several analytical methods with geotechnical and survey information to anticipate, estimate and monitor earthwork operations and processes.

Student Learning Outcomes (More specific):

Calculate in-place earthwork quantities; document and accurately calculate changes in earthwork programs; be able to interface with the now DOT GPS survey system for earthwork quantities; be able to read and utilize traditional "wood" survey information in the field; be able to develop, interpret and analyze "field" survey and geotechnical investigation information to develop pits and/or changed earthwork conditions; basic cut/fill strategies for projects.

6. Instructional Methods

The course will utilize a lecture and student problem-solving format. Lectures will originate in Fairbanks and be transmitted to Anchorage via interactive video transmission between the two sites.

7. Course Calendar

WEEK	DATE	CLASS SUBJECT
1	22 MAR	Fundamental Field Measurements/Methods/Problems Reading/Using Conventional (Old Fashion) Survey Control
2	24 MAR	Utilizing Designer Notes, Field and Initial Survey Information Always “Checking” the Picture
3	31 MAR	Earthwork Quantity / Production Factors, Estimating Daily Production by Various Means. Useable/Waste/Grading Factors
4	05 APR	Developing Earthwork Estimates for Pits/Changed Conditions/Etc. Monitoring/Documentation/Permits
5	07 APR	GPS / GIS Guest Lecture, Other Electronic/Information Methods
6	12 APR	Mass Balance Analysis & Other Earthwork “Planning” Methods. Final Summation, Final Quiz

8. Course Policies

Plagiarism will not be tolerated. Attendance is expected and will be considered in determining the final grade.

9. Evaluation

The final grade will be determined on the following basis:

Homework Assignment No. 1	15%
Homework Assignment No. 2	15%
Homework Assignment No. 3	15%
Homework Assignment No. 4	15%
Homework Assignment No. 5	15%
Final Quiz	20%
Class Participation	5%

10. Support Services

No special support services will be required except for live, interactive video.

11. Disability Services

We will work with the Office of Disability Services to provide reasonable accommodation to students with disabilities.