

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:**

<b>Department</b>	<b>Construction Management &amp; Drafting Technology</b>	<b>College/School</b>	<b>CRCD / Community &amp; Technical College</b>
<b>Prepared by</b>	<b>Galen Johnson</b>	<b>Phone</b>	<b>455-2846</b>
<b>Email Contact</b>	<b>gjohns55@alaska.edu</b>	<b>Faculty Contact</b>	<b>Galen Johnson</b>

**1. COURSE IDENTIFICATION: As the course now exists.**

Dept	CM	Course #	F213	No. of Credits	4
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<b>COURSE TITLE</b>	Civil Technology
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**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"/>
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<b>NUMBER</b>	<b>TITLE</b>	<b>DESCRIPTION</b>
<b>PREREQUISITES*</b>	<input checked="" type="checkbox"/>	<b>FREQUENCY OF OFFERING</b>

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

<b>CREDITS (including credit distribution)</b>	<input checked="" type="checkbox"/>	<b>COURSE CLASSIFICATION</b>
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<b>ADD A STACKED LEVEL (400/600)</b>	<input type="checkbox"/>	Dept.	<input type="checkbox"/>	Course #	<input type="checkbox"/>
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*Include syllabi.*

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

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.

<b>ADD NEW CROSS-LISTING</b>	<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.
<b>STOP EXISTING CROSS-LISTING</b>	<input type="checkbox"/>	Dept. & No.	<input type="checkbox"/>	Requires notification of other department(s) and mutual agreement. Attach copy of email or memo.
<b>OTHER (specify)</b>				

**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.**

<b>COURSE FORMAT:</b> (check <b>all</b> 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
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<b>OTHER FORMAT (specify all that apply)</b>	
<b>Mode of delivery (specify lecture, field trips, labs, etc.)</b>	lecture

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

5. **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

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 ~~Aberiginal~~ Indigenous Rights and Policies (s)  
3 Credits  
Offered As Demand Warrants  
~~Case study~~ Comparative approach in assessing ~~Aberiginal~~ to analyzing Indigenous rights and policies in different nation-state systems. ~~Seven Aberiginal 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)

CM F213 Civil Technology  
~~{4}~~ 3 Credits Offered As Demand Warrants  
Outlines elements of civil design, including soils and soil mechanics, foundations, roads, and utilities using local, state and federal regulations. Students will also be introduced to elements of construction surveying. Special fees apply. Prerequisites: CMF102; DRT-F170. (2+4) (3+0)

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

CM F213 Civil Technology  
3 Credits Offered As Demand Warrants  
Outlines elements of civil design, including soils and soil mechanics, foundations, roads, and utilities using local, state and federal regulations. Students will also be introduced to elements of construction surveying. Special fees apply. Prerequisites: CMF102. (3+0)

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

LETTER:  PASS/FAIL:

9. **ESTIMATED IMPACT**

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

The proposed credit reduction and distribution change will match the efficiency of the presently implemented scheduling of 3 hour evening lecture class sessions which are utilized by many workforce development related degree programs and will reduce its cost.

**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 resource usage will be unchanged.

**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)

The Drafting Technology (DRT) program favors this change as it simplifies CM and DRT student's schedules and will continue to encourage CM students to take additional elective DRT courses.

**12. POSITIVE AND NEGATIVE IMPACTS**

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

CM and DRT programs and students will benefit from better coordination of evening class schedules and decreased costs.

**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 proposed credit hour reduction will allow students to complete the lecture-delivered portion of each CM class in a standard one-night-per-week schedule. The proposed credit distribution revision and removal of the DRT F170 prerequisite acknowledges the lecture (only) delivery mode presently utilized and the absence of computer aided drafting lab sessions. Course content, while somewhat compressed, will sufficiently introduce students to the basic concepts intended.

**APPROVALS:** (Additional signature blocks may be added as necessary.)

 Date 1-29-16

Signature, Chair, Program/Department of: Construction Management (CM)

 Date 1-29-16

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

 Date 2/1/16

Signature, Dean, College/School of:

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

Signature of Provost (if applicable) Date

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

	Date	
Signature, Chair		
Faculty Senate Review Committee: ___Curriculum Review ___GAAC		
___Core Review ___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, 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.

**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](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

CM F213 Format 2.docx

## Course Syllabus

**Course Title:** Civil Technology  
**Course Number:** CM F213  
**Credits:** 3  
**Prerequisites:** CM F102 Methods of Building Construction  
**Location:** CTC 604 Barnette Street, Room 322  
**Meeting Time:** Mondays (9/XX -12/XX/2016) 6:00 – 9:00 pm

**Instructor:** Steven Geraghty P.E.  
Telephone: 590-7368  
Email: sgeraghty@grtnw.com

**Department Contact:** Galen Johnson, Coordinator Construction Management  
604 Barnette Street, Suite 320  
Office hours 10:00am – 4:00pm (or other by appointment)  
Office 455-2846 Cell 590-8531 Email: gjohns55@alaska.edu  
Martha Westphal, Administrative Assistant,  
Office: 455-2886, Email: mmwestphal@alaska.edu

**Course Text:** Construction Planning, Equipment and Methods, 8<sup>th</sup> Edition; Robert L. Peurifoy, Clifford J. Schexnayder, Aviad Shapira, and Robert L. Schmitt; McGraw-Hill

**Course Description:** CM F213 outlines elements of civil design, including soils and soil mechanics, foundations, roads, and utilities using local, state and federal regulations. Students will also be introduced to elements of construction surveying.

This class introduces both design and construction elements associated with management of civil construction projects, including soils and soil mechanics, foundations, roads, site drainage, soil stabilization and utilities. Students will also be introduced to elements of lifting and rigging principles, excavation dewatering and other activities associated with civil work.

CM F213 topics include:

- General Topic - Safety procedures, University policies, course and lab procedures, emergency egress review
- Codes and Specifications - Local codes, design criteria, standard specifications, state and federal regulations
- Soils – Sampling, testing, properties and characteristics, compaction, stabilization
- Foundations - Shallow foundations, pile foundations, caissons
- Road Construction - Elements of road prisms, aggregate processing and pavements
- Utilities - Design elements and construction of water and sewer utilities
- Earthwork Analysis – Grading, cut & fill, cross-sections, sitework quantities and average haul analysis
- Construction Surveying - Initial layout, dimension control, road staking, utility staking, and elevation control.

**Course Objectives:** This course will provide entry-level construction managers an understanding of the fundamental elements of civil design and construction, including soils and soil mechanics, foundations, roads, aggregates, pavements, utilities and construction surveying in preparation for managing civil construction activities.

**Student Learning Outcomes:** Upon successful completion of the course, the student will be able to -

- Describe the importance and purpose of soils testing for civil projects.

- Define the properties and characteristics of soil types and how they relate to the construction process.
- Explain the different foundation types and their application.
- Describe the fundamental components of roads and streets, including structural fill, processed aggregates and pavements.
- Analyze plan and profile drawings and analysis of excavation and fill quantities.
- Describe the essential design elements and construction practices for installing water and sewer utilities.
- Perform an overall sitework analysis of a simple civil construction project.
- Perform basic surveying measurements associated with control of civil construction projects.

Outcome will be assessed by:

- Class Discussion/Participation
- Written Exercises
- Written Exams

Instructional Methods:

Class sessions will consist of lecture/discussions. Emphasis will be on realistic assignments that will further the student's understanding of field and office procedures and terminology within the civil engineering and surveying fields.

Course Calendar: See Schedule of Topics attached.

Course Policies and Procedures:

University Policies - Please review all university policies as written in the current UAF catalog.

- Attendance - Students are required to attend regularly and participate actively. Students are responsible for class work even if there is a legitimate excuse for their absence. Team Projects and Lab activities during class will not be repeated for the benefit of absentees.
- Cheating - Any means by which a student uses unauthorized assistance to prepare materials submitted as their own. Cheating is grounds for dismissal from the university. This includes the unauthorized use or exchange of computer files.
- Smoking – tobacco usage is not allowed on campus.
- ID Cards - Students should carry their UAF Student ID cards with them whenever they are on campus.

Department Policies

- Emergency Exits – In case of emergency, exit the room back into the main corridor. Exits may be reached by going either direction down the main corridor. Fire alarm pull stations and fire extinguishers are located at each end of the corridor.
- Food/Drink - Covered drinks are allowed, food is not.
- Grades - Final Grades will be posted to UAOnline.
- Name - Put your name on all papers/projects or you may not receive credit for it.
- Deadlines – Weekly assignments are due by the end of the following class day that they are assigned. Late work may be assessed 5 points per class period late.

Evaluation:

Quizzes - two quizzes at 100 points each. **NOTE:** Make-up quizzes may be taken upon request during designated sessions.

Exams - three exams at 150 points each. **NOTE:** Make-up exams may be taken upon request during designated sessions. If you miss the original exam you will only be eligible for the make-up exam.

Homework assignments – Text review questions and other relevant current industry topics will be assigned for submission and discussion at the following class meeting.

Classroom attendance and participation is worth ten points per class. Students are responsible for classwork even if there is a legitimate excuse for their absence. Unexcused absences may result in the student's being dropped from the class or receiving a failing grade.

**Grading Policy:** All grades are determined by competency-based criteria evaluation. Students are evaluated primarily on individual performances versus by comparison with other students or normal curve distribution. Letter grades for the course will reflect the *Grading System and Grade Point Average Computation* policy stated in the current UAF catalog. Faculty initiated withdrawals for non-attendance, plagiarism, and disruptive behavior is per current UAF Catalog guidelines.

**Grade Tabulation:**

Assignments	200	<b>Grading Scale</b>	
Quiz #1	100	A	90%
Quiz #2	100	B	80%
Exam #1	150	C	70%
Exam #2	150	D	60%
Exam #3	150		
Participation	<u>150</u>		
Total	1,000		

**Support Services:** The CTC Student Assistance Center provides services that contribute to a successful learning experience and transition to a career. Services are available by appointment and on a walk-in basis. Staff at the center recognizes the unique concerns of adult and returning students. Services include preadmission advising, academic assessment and placement advising, financial aid information and application, and assistance with choosing a major. Ongoing academic advising, degree planning and course selection are available. For more information, contact Student Assistance, UAF Community and Technical College Campus Center, 604 Barnette Street, Fairbanks, Alaska 99701, telephone (907) 455-2851, or visit online at <http://www.ctc.uaf.edu/stuassist.html>.

**Disability Services:** UAF has a Disability Services office that operates in conjunction with CTC. Disability Services, a part of UAF's Center for Health and Counseling, provides academic accommodations to enrolled students who are identified as being eligible for those services. If you believe you are eligible, please visit <http://www.uaf.edu/chc/disability.html> on the web or contact CTC's Student Assistance and Advising Center (455-2800). You can also contact Disability Services on the Fairbanks Campus at (907) 474-7043, [fydso@uaf.edu](mailto:fydso@uaf.edu).

**Title IX:** University of Alaska Board of Regents have clearly stated in BOR Policy that discrimination, harassment and violence will not be tolerated on any campus of the University of Alaska. If you believe you are experiencing discrimination or any form of harassment including sexual harassment, misconduct or assault, you are encouraged to report that behavior. If you disclose sexual harassment or sexual violence to a faculty member or any university employee, they must notify the UAF Title IX Coordinator about the basic facts of the incident. Your choices for disclosure include:

- 1) You may confidentially disclose and access confidential counseling by contacting the UAF Health & Counseling Center at 474-7043;
- 2) You may access support and file a Title IX report by contacting the UAF Title IX Coordinator at 474-6600;
- 3) You may file a criminal complaint by contacting the University Police Department at 474-7721.



**CM F213 Civil Technology**  
Instructor: Steven Geraghty, P.E.

**SCHEDULE OF TOPICS**  
Monday Sep 12 – Dec 19, 2016  
6:00pm – 9:00pm

**Class 01 Sept 12, 2016**

Introduction: Class Schedule and Schedule  
Intro to Reading Plans

**Class 02 Sept 19**

Surveying Fundamentals w/Hands-on  
Instrument Familiarization  
Read: Chapter 4 & 5

**Class 03 Sept 26**

Intro to Soils  
Quiz #1: Surveying, Soils  
Review Quiz

**Class 04 Oct 03**

Site Drainage & Geosynthetics

**Class 05 Oct 10**

Water & Sewer Utilities

**Class 06 Oct 17**

Quiz #2 – Site Drainage, Geosynthetics,  
Water & Sewer  
Review Quiz  
Read: Chapter 14

**Class 07 Oct 24**

Aggregates and Agg. Processing  
Mid-term Exam Prep

**Class 08 Oct 31**

Mid-Term Exam  
Read: Chapter 15

**Class 09 Nov 07**

Review Exam, Intro to Roads & Streets,  
Pavements  
Read: Chapter 18

**Class 10 Nov 14**

Pavements and Pile Foundations

**Class 11 Nov 21**

Quiz #3: Pavements, Roads & Streets, Pile  
Foundations  
OSHA Trenching  
Read: Chapter 17

**Class 12 Nov 28**

Cranes, Rigging & Lift Planning  
Read: Chapter 3

**Class 13 Dec 05**

Earthwork Analysis & Mass Diagrams

**Class 14 Dec 12**

Quiz#4: Cranes & Rigging, OSHA  
Trenching, Earthwork Analysis & Mass  
Diagrams  
Exam Prep

**Class 15 Dec 19**

Final Exam