

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

1. COURSE IDENTIFICATION: As the course now exists.

Dept	CM	Course #	F231	No. of Credits	4
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COURSE TITLE	Structural 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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NUMBER	TITLE	DESCRIPTION
PREREQUISITES*	<input checked="" type="checkbox"/>	FREQUENCY OF OFFERING

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

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

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)	<input type="text"/>			

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.**

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
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OTHER FORMAT (specify all that apply)	<input type="text"/>
Mode of delivery (specify lecture, field trips, labs, etc.)	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, W = Writing Intensive, X = Baccalaureate Core
*Format 6 also submitted *Format 7 submitted

- 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 F231 Structural Technology
{4} 3 Credits Offered As Demand Warrants
Examines structural theory and the physical principles that underlie structural behavior. Includes the use of materials in a manner to maintain structural stability against such natural forces as gravity, wind, snow and earthquakes. Covers connection detailing and code requirements for wood, steel and reinforced concrete. Special fees apply. Prerequisites: CM F102; ~~DRT F170~~. (2+4) (3+0)

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

CM F231 Structural Technology
3 Credits Offered As Demand Warrants
Examines structural theory and the physical principles that underlie structural behavior. Includes the use of materials in a manner to maintain structural stability against such natural forces as gravity, wind, snow and earthquakes. Covers connection detailing and code requirements for wood, steel and reinforced concrete. Special fees apply. Prerequisites: CM F102. (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

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 F231 Format 2.docx

Course Syllabus

Course Title: Structural Technology
Course Number: CM F231 CRN XXXXX Sec TE1
Credits: 3
Location: CTC 604B Room 322
Meeting Time: Tues (09/XX – 12/XX) 6:00 – 9:00pm

Instructor: Galen Johnson, Rm 320C 455-2846 gjohns55@alaska.edu

Department Contact: Galen Johnson, Coordinator Construction Management & Drafting Tech

604 Barnette Street, Suite 320
Office hours 10:00am – 3:00pm (or other by appointment)
Office 455-2846 Cell 590-8531 Email gjohns55@alaska.edu

Martha Westphal, Admin. Assistant, 455-2886 mmwestphal@alaska.edu

Course Text: Statics and Strength of Materials for Architecture and Building Construction (4th Ed.) ISBN 013507925-X Onouye & Kane Pearson/ Prentice Hall Pub.

Course Description: CM F231 examines structural theory and the physical principles that underlie structural behavior. Includes the use of materials in a manner to maintain structural stability against such natural forces as gravity, wind, snow and earthquakes. Covers connection detailing and code requirements for wood, steel and reinforced concrete.

Includes the strength of common construction materials, structural shapes, connection details and code requirements for wood, steel and reinforced concrete.

CM F231 topics include:

- Forces: Static & Dynamic Loads
- Structural Equilibrium & Stability
- Load Tracing
- Foundations including Permafrost Conditions
- Beams & Columns
- Strength of Materials including Concrete, Wood & Steel Construction
- Connections
- Seismic Considerations
- Risk & Responsibility – Safety, Ethics and Liability
- Temporary construction loads on structures

Course Goals/Outcomes: upon successful completion of this course students will be able to:

- Apply basic properties of concrete, wood and steel to appropriate uses of each
- Correctly interpret structural drawing symbols and notes
- Recognize risks associated with changes to structural design details while balancing the need for construction progress
- Identify and initiate solutions to basic structural design issues through the designer of record or other designated authority and properly document and communicate any changes to the contract documents

Outcome will be assessed by:

- Class Discussion
- Written Exercises
- Written Exams

Instructional Methods: Class sessions will consist of lecture/discussions, in-class exercises and review of text question & exercise assignments. Local structural engineers and design consultants will be invited to address the class.

Course Calendar: See Schedule of Topics.

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.
- **Cell phones off please –** except emergencies.

Evaluation:

- **Assignments:** Chapter Review Questions and/or Exercises from the respective text readings will be evaluated.
- **Exams:** There will be three “open book” exams each worth 150 points. There may be true/false questions, essay questions, multiple-choice questions or matching terms with definitions. Questions will be derived from the assigned text reading, handouts, and lecture information. A Study Guide will be reviewed in class prior to each exam. Attendance during the Review is highly recommended for success on exams.
- **Makeup Tests:** Make-up tests may be given upon approval by the instructor. The time for make-up tests will be arranged directly with the instructor.
- **Attendance & Participation:** Up to 10 points towards student's grades will be awarded for each class attended. In case of absence, points may be awarded at the Instructor's discretion if prior notice of unavoidable absence is given. Full points for a class session may not be awarded if the student arrives late and/or leaves early.

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:

Quiz 01	50 pts
Quiz 02	50 pts
Assignments	200 pts
Class Exercises	100 pts
Exam #1	150 pts
Exam #2	150 pts
Exam #3	150 pts
Participation	<u>150 pts</u>
Total Points	1,000 pts

Grading Scale: (note: no +/- grades)

A	90%
B	80%
C	70%
D	60%

Support Services:

The Community & Technical College (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 & Technical College Center, 604 Barnette Street, Fairbanks, Alaska 99701, telephone (907) 455-2851, or visit online at <http://www.tctc.uaf.edu/stuassist.html>.

Disability Services:

UAF has a Disability Services office that operates in conjunction with the Community & Technical College. 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.

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/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.

Class 01 Sep 06

Introduction, Class Schedule, Policies and Procedures. Browse text: Statics and Strength of Materials for Architecture and Building Construction (SSM)

Class 02 Sep 13

Topic: Loads & Reactions
Reading: SSM Preface & Chapter 1
Greatest Structures (GS) video #2: Forces

Class 03 Sep 20

Topic: Statics
Reading: SSM Chapter 2
GS #7 Trusses video

Class 04 Sep 27

Topic: Analysis
Reading: SSM Chapter 3
GS #8 Cables & Arches video
Tacoma Narrows Bridge info

Class 05 Oct 04

Topic: Load Tracing
Reading: SSM Chapter 4
GS #3 Stress/Strength video
Exam #1 Study Review

Class 06 Oct 11

Exam #1

Class 07 Oct 18

Review Exam Results
Topic: Strength of Materials
Reading: SSM Chapter 5
GS #9 Loads/Systems video

Class 08 Oct 25

Topic: Cross sectional Properties
Reading: SSM Chapter 6
GS #4 Materials Properties video
Pile foundations in permafrost info

Class 09 Nov 01

Topic: Bending & Shear Simple Beams
Reading: SSM Chapter 7
GS #6 Beams/Bending video
Review exam results

Class 10 Nov 08

Topic: Bending & Shear Stresses
Reading: SSM Chapter 8
P.E. Guest Presentation and/or
St. Louis Arch Construction video
Exam #2 Study Guide

Class 11 Nov 15

Exam #2

Class 12 Nov 22

Review Exam #2 Results
Topic: Columns
Reading: SSM Chapter 9
GS #5 Columns/Buckling video

Class 13 Nov 29

Topic: Connections
Reading: SSM Chapter 10
NTSB I-35 Bridge Collapse information
Eiffel Tower Construction video

Class 14 Dec 06

Topic: Architecture & Construction
Reading: SSM Chapter 11
Exam #3 Study review

Class 15 Dec 13

Exam #3

NOTE: Schedule subject to change by Instructor upon prior notice.