148 [illegible handwriting]

FORMAT 2

Submit originals and one copy and electronic copy to **Governance/Faculty Senate Office**

See http://www.uaf.edu/uafgov/faculty/cd for a complete description of the rules governing curriculum & course changes.

CHANGE COURSE (MAJOR) and DROP COURSE PROPOSAL

SUBMITTED BY:

Department	CEE	**College/School**	CEM
Prepared by	Andrew Metzger	**Phone**	907.474.6120
Email Contact	atmetzger@alaska.edu	**Faculty Contact**	Andrew T. Metzger

1. COURSE IDENTIFICATION:

Dept	CE	Course #	434	No. of Credits	3

COURSE TITLE	Timber Design

2. ACTION DESIRED:

Change Course	X	If Change, indicate below what change.	Drop Course	

NUMBER		**TITLE**		**DESCRIPTION**	
PREQUISITES				**FREQUENCY OF OFFERING**	X
CREDITS (including credit distribution)			X	**COURSE CLASSIFICATION**	
CROSS-LISTED		Dept.		(Requires approval of both departments and deans involved. Add lines at end of form for such signatures.)	
STACKED (400/600) Include syllabi.		Dept.		Course #	
OTHER (please specify)	Change to a (3+0) course; the lab for this course has not been offered for several years, and will not be offered in the future. Offered fall of odd-numbered years				

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. 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		3		4		5	X	6 weeks to full semester
OTHER FORMAT (specify all that apply)												
Mode of delivery (specify lecture, field trips, labs, etc)	lecture											

4. 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	X

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		Natural Science, Format 8 submitted	

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).	
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. ***CURRENT CATALOG DESCRIPTION AS IT APPEARS IN THE CATALOG: including dept., number, title and credits***

CE 434 Timber Design
3 Credits Offered As Demand Warrants
Design Loads. Building systems and loading path. Physical and mechanical properties of wood. Design values and adjustment factors. Design of axial members, beams and columns. Connection details. Design of wood frame structures. Current National Design Specifications (NDS) for Wood Construction used. Special fees apply.
Prerequisites: CE F331; ES F331. (2+3)

7. ***COMPLETE CATALOG DESCRIPTION AS IT WILL APPEAR WITH THESE CHANGES: (Underline new wording ~~strike-through old wording~~ and use complete catalog format including dept., number, title, credits and cross-listed and stacked.) PLEASE SUBMIT NEW COURSE SYLLABUS. For stacked courses the syllabus must clearly indicate differences in required work and evaluation for students at different levels.***

CE 434 Timber Design
3 Credits ~~Offered As Demand Warrants~~ Offered Fall of Odd-numbered Years
Design Loads. Building systems and loading path. Physical and mechanical properties of wood. Design values and adjustment factors. Design of axial members, beams and columns. Connection details. Design of wood frame structures. Current National Design Specifications (NDS) for Wood Construction used. Special fees apply.
Prerequisites: CE F331; ES F331. ~~(2+3)~~ (3+0)

8. ***IS THIS COURSE CURRENTLY CROSS-LISTED?***
YES/NO [NO] **If Yes, DEPT** [ ] **NUMBER** [ ]
(Requires written notification of each department and dean involved. Attach a copy of written notification.)

9. ***GRADING SYSTEM:*** ***Specify only one***
LETTER: [X] **PASS/FAIL:** [ ]

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

none

11. ***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 [X]

12. ***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)

Civil Engineering Department

13. ***POSITIVE AND NEGATIVE IMPACTS***
*Please specify **positive and negative** impacts on other courses, programs and departments resulting from the proposed action.*

Experience has shown us that class enrollment will increase if Timber Design is offered every-other year. We believe this plan is a better use of faculty resources. There are no perceived negative impacts with this change.

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.

This course has traditionally been listed as a (2+3) course and "As Demand Warrants". Demand over the last four years has been high enough to justify offering the course every-other year. All indications are that this will continue into the future. A review of CEE curriculum courses, both required and elective, revealed that the Timber Design course could be offered fall of odd-numbered years with little or no disruption to other courses or student's ability to take required courses.

This course teaches the theory of design of timber structures as well as the practice of same. The practice of timber design and construction is outlined in the American Wood Council, National Design Standard (NDS). This standard has grown over the last decade and contains considerably more information than earlier editions. Because of this, it has become apparent that the student's time is better spent learning the NDS code, required for engineering practice upon employment, than performing lab exercises. The lab has not been taught for several years. The proposed change will accurately reflect how the course has been offered over the last several years, and how we intend to offer it in the future.

APPROVALS:

	Date	2-11-11	
Signature, Chair, Program/Department of:	CIVIL & ENV. ENG		
Sebastian Misra	Date	2/20/11	
Signature, Chair, College/School Curriculu Council for:	CEM		
	Date	2/21/11	
Signature, Dean, College/School of:	CEM		
	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 Curriculu Council for:		
	Date	
Signature, Dean, College/School of:		

ATTACH COMPLETE SYLLABUS (as part of this application).

Note: The guidelines are online: http://www.uaf.edu/uafgov/faculty/cd/syllabus.html
The department and campus wide 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 change will 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.)
11. **Support Services:**
    ❑ Describe the student support services such as tutoring (local and/or regional) appropriate for the course.
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.
    ❑ State that you will work with the Office of Disabilities Services (208 WHIT, 474-5655) to provide reasonable accommodation to students with disabilities."

UNIVERSITY OF ALASKA FAIRBANKS
DEPARTMENT OF CIVIL & ENVIRONMENTAL ENGINEERING

CE 434 Timber Design – Fall 2009
3 credit hours

Instructor: Paul V. Perreault, MSCE, PE
Duckering 345
Cell: 322-4753
E-mail: ftpvp@uaf.edu

Class Time: 9:15am – 10:15am MWF
At (currently shown as) Duckering Room 347

Office Hours: M, W 1:00p-3:00p

Prerequisites: CE F331, ES F331

Required Texts:

Breyer, D.; Fridley, K.; Cobeen, K.; & Pollock, D. *Design of Wood Structures ASD/LRFD, Sixth Edition*, 2007, McGraw Hill, New York, NY. ISBN-13:978-0-07-145539-8.

American Forest and Paper Association, 2006. *2005 NDS & Wood Design Package*. American Wood Council, 4-Volume Set ISBN-0-9625985-8-5 is available from http://www.awc.org/Standards/nds.html

Required Reference:
(meaning – know where you can find one to use – but you do not need to buy it.)

ASCE Standard ASCE/SEI 7-05, 2006. Minimum Design Loads for Buildings and Other Structures. American Society of Civil Engineers. ISBN-0-7844-0809-2: available from http://pubs.asce.org/books/standards/

Course Description: Design Loads. Building systems and loading path. Physical and mechanical properties of wood. Design values and adjustment factors. Design of axial members, beams and columns. Connection details. Design of wood frame structures. Current National Design Specifications (NDS) for Wood Construction used.

Course Goals: This class is designed to be a first-course in the design of timber structural components and assemblies as used in building construction. General design philosophy as well as building components and load paths will be discussed. Concepts surrounding wood as a building material will be explored. The design of elementary building components using dimensioned and engineered lumber

will be studied. Means of connecting timber elements and assemblies will also be studied.

Student Learning Outcomes: The student should leave the course with knowledge of how to use NDS Design Supplements to design timber structural elements. The level of competency should be consistent with an entry-level practicing engineer and Professional Engineering Exam questions on the topic.

Instructional methods: material will be taught through lecture

Course Content:

Week 1	LRFD Design Criteria/ Building Codes
Week 2	Loads and Load Combinations
Week 3	Parts of a load-bearing-wall building; Load paths
Week 4	Wood
	What is wood?
	Species of Wood/ Availability
	Properties of wood
Week 5	Wood as a building material
Week 6	Dimensioned Lumber (Sawn Lumber)
	Beam Design
Week 7	Column/ Beam-Column Design
Week 8	Connections
Week 9	Built-up members
Week 10	Engineered Lumber
Week 11	Glued-Laminated-Beams (GLB)
Week 12	Engineered wood products
	Plywood
Week 13	Assemblies
	Diaphragms
Week 14	Shear walls
	Connections
Week 15	Dynamic Loading
	Wind & Seismic loads

Evaluation: Grades are based on absolute scores

Homework	40%
Mid Term Exam	20%
Final Exam (Comprehensive)	40%

Homework is due one week after it is assigned. Please do not email the homework. Submit hard-copies of your homework during the normal class period when due.

Expect exams to have an in-class component and take home design component due one week after it is assigned

Course Policies: Regular attendance and participation is expected, as well as professional behavior in class (show up on time, no talking during class, no walking out of/back in to class, no wearing headphones, no texting, and cells phones and computers are to be turned off in class, no eating in class – drinks are permissible).

Disability Services: The Office of Disability Services implements the Americans with Disabilities Act (ADA), and insured that UAF students have equal access to the campus and course materials. We will work with the Office of Disability Services (203 WHIT, 474-7043) to provide reasonable accommodations to students with disabilities.

FORMAT 2

Submit originals and one copy and electronic copy to **Governance/Faculty Senate Office**
See http://www.uaf.edu/uafgov/faculty/cd for a complete description of the rules governing curriculum & course changes.

CHANGE COURSE (MAJOR) and DROP COURSE PROPOSAL

SUBMITTED BY:

Department	CEE	**College/School**	CEM
Prepared by	Andrew Metzger	**Phone**	907.474.6120
Email Contact	atmetzger@alaska.edu	**Faculty Contact**	Andrew T. Metzger

1. *COURSE IDENTIFICATION:*

Dept	CE	Course #	434	No. of Credits	3

COURSE TITLE Timber Design

2. *ACTION DESIRED:*

Change Course [X] If Change, indicate below what change. Drop Course [ ]

NUMBER		***TITLE***		***DESCRIPTION***	
PREQUISITES				***FREQUENCY OF OFFERING***	X
CREDITS (including credit distribution)				***COURSE CLASSIFICATION***	
CROSS-LISTED		Dept.		(Requires approval of both departments and deans involved. Add lines at end of form for such signatures.)	
STACKED (400/600) *Include syllabi.*		Dept.		Course #	
OTHER (please specify)	Change to a (3+0) course; the lab for this course has not been offered for several years, and will not be offered in the future. Offered fall of odd-numbered years				

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. 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*	[ ] *3*	[ ] *4*	[ ] *5*	[X]	*6 weeks to full semester*
OTHER FORMAT (specify all that apply)							
Mode of delivery (specify lecture, field trips, labs, etc)	lecture						

4. 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	X

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 [ ] Natural Science, Format 8 submitted [ ]

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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8. ***IS THIS COURSE CURRENTLY CROSS-LISTED?***

YES/NO [NO] **If Yes, DEPT** [ ] **NUMBER** [ ]

(Requires written notification of each department and dean involved. Attach a copy of written notification.)

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

LETTER: [X] **PASS/FAIL:** [ ]

10. ***ESTIMATED IMPACT***

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

none

11. ***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 [X]

12. ***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)

Civil Engineering Department

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

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APPROVALS:

	Date	2-11-11	
Signature, Chair, Program/Department of:	CIVIL & ENV. ENG		
Rebecca Mitz Mizer	Date	2/20/11	
Signature, Chair, College/School Curriculu Council for:	CEM		
	Date	2/21/11	
Signature, Dean, College/School of:	CEM		
	Date		
Signature of Provost (if applicable)			

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	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 Curriculu Council for:		
	Date	
Signature, Dean, College/School of:		

ATTACH COMPLETE SYLLABUS (as part of this application).

Note: The guidelines are online: http://www.uaf.edu/uafgov/faculty/cd/syllabus.html
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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.
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   ❑ any supplies required.
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   ❑ Inclusion of catalog description is *strongly* recommended, and
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5. ❑ **Course Goals (general), and (see #6)**
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UNIVERSITY OF ALASKA FAIRBANKS
DEPARTMENT OF CIVIL & ENVIRONMENTAL ENGINEERING

CE 434 Timber Design – Fall 2009
3 credit hours

Instructor: Paul V. Perreault, MSCE, PE
Duckering 345
Cell: 322-4753
E-mail: ftpvp@uaf.edu

Class Time: 9:15am – 10:15am MWF
At (currently shown as) Duckering Room 347

Office Hours: M, W 1:00p-3:00p

Prerequisites: CE F331, ES F331

Required Texts:

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Required Reference:
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will be studied. Means of connecting timber elements and assemblies will also be studied.

Student Learning Outcomes: The student should leave the course with knowledge of how to use NDS Design Supplements to design timber structural elements. The level of competency should be consistent with an entry-level practicing engineer and Professional Engineering Exam questions on the topic.

Instructional methods: material will be taught through lecture

Course Content:

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Week 8	Connections
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Week 12	Engineered wood products
	Plywood
Week 13	Assemblies
	Diaphragms
Week 14	Shear walls
	Connections
Week 15	Dynamic Loading
	Wind & Seismic loads

Evaluation: Grades are based on absolute scores

Homework	40%
Mid Term Exam	20%
Final Exam (Comprehensive)	40%

Homework is due one week after it is assigned. Please do not email the homework. Submit hard-copies of your homework during the normal class period when due.

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