148 (166)

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.

BMITTED BY:									
Department	CEE					College/Sch			CEN
Prepared by	Andro	ew M	etzger			Phone			907.474.612
Email Contact	atmet	zger@	@alaska.ed	du		Faculty Contact		Andı	ew T. Metzge
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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.
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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.	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.
T	TIFICATION FOR ACTION REQUESTED he purpose of the department and campus-wide curriculum committees is to scrutinize ourse change and new course applications to make sure that the quality of UAF

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APPROVALS:			•
Lili.		Date	2-11-14
Signature, Chair, Program/Department of:	IIL & EINY. (5146	
Mehasmita Misoz		Date	2/20/11
Signature, Chair, College/School Curr Council for:	CEM		
AAA		Date	2/21/11
Signature, Dean, College/School of:	CEM	-	•
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the Provost. ALL SIGNATURES MUST BE OBTAINED PRIOR	TO SUBMISSION T	O THE	GOVERNANCE OFFICE.
		Date	
Signature, Chair, UAF Faculty Senat Review Committee	e Curriculum		
DDITIONAL SIGNATURES: (As needed for	cross-listing a	ind/or	stacking)
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Signature, Chair, Program/Department of:			
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Signature, Chair, College/School Curr Council for:	iculu		
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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.

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disabilities."

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):

contain the following information (as applicable to the discipline):
1. Course information:
\square Title, \square number, \square credits, \square prerequisites, \square location, \square 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 <i>strongly</i> 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:
lacksquare Specify how students will be evaluated, $lacksquare$ what factors will be
included, \square 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

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.

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.

Department	CEE				College/Sch			CEN
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Email Contact	atmetz	ger@	alaska.ec	lu	Faculty Contact		Andı	rew T. Metzge
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PPROVALS:		
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Signature, Chair, Program/Department of: CIVIL & GIVIL	نتاب	
Alebasmitz Misoz	Date	2/20/11
Signature, Chair, College/School Curriculu CEM		
A	Date	2/21/11
Signature, Dean, College/School (CM)	•	
	Date	
Signature of Provost (if applicable) Offerings above the level of approved programs musthe Provost.		
LL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION	·	GOVERNANCE OFFICE.
Signature, Chair, UAF Faculty Senate Curriculum Review Committee	Date	
DITIONAL SIGNATURES: (As needed for cross-listing	and/or	stacking)
Signature, Chair, Program/Department of:		
	Date	
Signature, Chair, College/School Curriculu Council for:		
	Date	
Signature, Dean, College/School		

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: lacktriangle Title, lacktriangle number, lacktriangle credits, lacktriangle prerequisites, lacktriangle location, lacktriangle 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. lacksquare Supplementary readings (indicate whether lacksquare required or lacksquarerecommended) 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, \square 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.ascc.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:

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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.