

CCET 4816 - Timber Design

Fall 2026 Syllabus, Section 01, CRN 43581,

Credit hours: 3

Instructor

Larry Webster

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Public Instructor Information

Instructor Title: Adjunct Professor

Instructor Professional Qualifications: Bachelor of Engineering, Youngstown State University, 1992

Instructor Office Location: Mosure Hall Room 4120

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Course Description

4816. Timber Design. Design of beams, poles, piles, diaphragms, shear walls and fasteners using timber elements. Application of the National Design Specification for Wood Construction that incorporates a dual format using both allowable stress design (ASD) and load and resistance factor design (LRFD). Additional topics include glued-laminated members and design of mechanical connectors. Design, analysis, construction, and testing of scale models is required. Two hours lecture, one hour lab per week. Prereq.: "C" or better in both CCET 3706 and CCET 3709. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Design of Wood Structures ASD/ LRFD 8th Edition	Donald E. Breyer, Kelly Cobeen, Zeno Martin	978-1-260-12867-3
Optional	NDS National Design Specification for Wood Construction with Commentary	American Wood Council	978-1-940383-45-3
Optional	NDS Supplement - Design Values for Wood Construction	American Wood Council	978-1-940383-48-4

NDS Design Specification and Supplement Design Values will be given during course with weblink.

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Week of	Reading(s)	Proposed Topic	Due/To Prepare for Class
8/24	Chapter 1	Intro, Course Expectations, Professional Licensure, Structural properties and behavior Properties of Wood and Wood Construction	
8/31	Chapter 2	Design Loads Load Combinations	
9/7	Monday September 7th University Closed Chapter 4	Labor Day Holiday Observed Properties of Wood, Design Values and Adjustment Factors	
9/14	Chapter 6	Beam Design - Lumber Bending Lumber Bending Examples	
9/21	Chapter 6	Lumber in Bending Examples Lumber in Compression	



9/28	Chapter 6	Lumber in Compression Examples Lumber in Compression Examples
10/5	Chapter 6	Review of Topics Discussed Exam 1
10/12	Chapter 5	Review Exam 1 Structural Glue Laminated Timber
10/19	Chapter 5	Glue Laminated Timber Adjustment Factors Glue Laminated Design Examples
10/26	Chapter 5	Glue Laminated Design Examples Glue Laminated Design Examples
11/2	Chapter 5	Review for Topics Discussed Exam 2
11/9	Exam Review Wednesday November 11th University Closed	Review Exam 2
11/16	Chapter 11	Discuss Fasteners and Connections Fasteners and Connections Examples
11/23	Chapter 11 Wednesday November 25 Fall Break Begins	Fasteners and Connections Examples
11/30	Final Exam Review	Review of Course Topics
12/7	Final Exam 12/08/26	Comprehensive Final Exam 8:00 pm to 10:00 pm

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.