New Program Proposal

Date Submitted: 11/26/24 3:12 pm

Viewing: TBERGM : Timber Engineering Graduate MicroCertificate

Last edit: 03/04/25 11:39 am

Changes proposed by: kdhall

Submitter:	User ID:	kdhall	Phone: 4796402525
Program Status	Active		
Academic Level	Graduate		
Type of proposal	MicroCertificate		
Select a reason for this new program	Adding New Graduate MicroCertificate		
Effective Catalog Year	Fall 2025		
College/School Code	College of Engineering (ENGR)		
Department Code	Department of Civil Engineering (CVEG)		
Program Code	TBERGM		
Degree	Graduate MicroCertificate		
CIP Code			

In Workflow

1. ENGR Dean Initial
2. GRAD Dean Initial
3. Director of Curriculum Review and Program Assessment
4. Registrar Initial
5. Institutional Research
6. CVEG Chair
7. ENGR Curriculum Committee
8. ENGR Faculty
9. ENGR Dean
10. Global Campus
11. Provost Review
12. Graduate Council
13. Faculty Senate
14. Provost Final
15. Registrar Final
16. Catalog Editor Final

Approval Path

1. 01/09/25 2:27 pm Kevin Hall (kdhall): Approved for ENGR Dean Initial
2. 01/15/25 1:55 pm Ed Bengtson (egbengts): Rollback to ENGR Dean Initial for GRAD Dean Initial
3. 02/10/25 9:57 am Kevin Hall (kdhall): Approved for ENGR Dean Initial

4. 02/18/25 1:48 pm Jim Gigantino (jgiganti): Approved for GRAD Dean Initial
5. 03/03/25 11:33 am Lisa Kulczak (lkulcza): Approved for Director of Curriculum Review and Program Assessment
6. 03/03/25 5:21 pm Gina Daugherty (gdaugher): Approved for Registrar Initial
7. 03/04/25 11:39 am Doug Miles (dmiles): Approved for Institutional Research
8. 03/04/25 11:41 am Micah Hale (micah): Approved for CVEG Chair
9. 03/17/25 7:57 am Manuel Rossetti (rossetti): Approved for ENGR Curriculum Committee
10. 04/04/25 8:52 am Kevin Hall (kdhall): Approved for ENGR Faculty
11. 04/08/25 3:49 pm Kevin Hall (kdhall): Approved for ENGR Dean

12. 04/08/25 3:57 pm Suzanne Kenner (skenner): Approved for Global Campus
13. 04/09/25 9:43 am Jim Gigantino (jgiganti): Approved for Provost Review
14. 04/18/25 1:17 pm Phyllis Howell (pahowell): Approved for Graduate Council

14.0803 - Structural Engineering.

Program Title

Timber Engineering Graduate MicroCertificate

Program Delivery Method

On Campus

Is this program interdisciplinary between two or more colleges or schools?

No

Do the proposed changes impact any specific course(s) from another college or school?

No

What are the total hours needed to complete the program? 9

Program Requirements and Description

Requirements

Wood serves as a viable building material that is readily available. Reinforced concrete and steel are common building construction materials; however, wood is the only building material that is fully renewable and sustainable. Because of wood construction economy and constructability, most homes in the U.S. are built using wood. Beyond traditional sawn wood usage, mass timber is a new wood product in the United States that is gaining increasing popularity as a material of choice for wood construction. Mass timber is a wood composite that uses adhesives to attach small wood sections to form larger structural elements with increased strength and improved structural

behavior. Although wood is commonly used as a building structural material, most entry-level structural engineers have not completed coursework in timber design beyond a brief basic introduction at the undergraduate level. The graduate MicroCertificate in Timber Engineering seeks to remedy this deficiency by providing graduate students with core wood related courses to expand the graduate structural engineering student's breadth of knowledge and improve the student's engineering employment opportunities.

Requirements for the Timber Engineering Graduate MicroCertificate: The graduate MicroCertificate in Timber Engineering requires a certificated student to successfully complete the following courses, each with a grade of "C" or better:

CVEG 59203	Timber Design	3
CVEG 59303	Advanced Timber Design	3
CVEG 53143	Mass Timber Design	3
Total Hours		9

Program Costs

Courses required for the microcertificate will be taken from existing courses within the department of civil engineering. No additional costs are expected for the microcertificate.

Library Resources

Current resources are adequate for the program needs.

Instructional
Facilities

Current instructional facilities are adequate. No additional facilities are needed.

Faculty Resources

Current faculty resources are adequate. No additional faculty resources are needed.

List Existing Certificate or Degree Programs
that Support the Proposed Program

Program(s)
CVEGMS - Civil Engineering, Master of Science in Civil Engineering

Are Similar Programs available in the area?

No

Estimated Student Demand for Program	10
Scheduled Program Review Date	N/A-- microcertificates do not require program review

Program Goals and Objectives

Program Goals and Objectives
Program Goals: The graduate micro-certificate in Timber Engineering program will provide graduate students with core wood related courses to expand the structural engineering student's breadth of knowledge and improve the engineering student's employment opportunities. Additionally, the micro-certificate furnishes structural engineering employers a metric for a student's knowledge in wood design. The Timber Engineering graduate micro-certificate requires a student to successfully complete three core courses in wood engineering: Timber Design I, Timber Design II, and Mass Timber Design. Consequently, the program ensures that a certificated student has an in-depth knowledge of wood design. Program Objectives: Students that are Timber Engineering certificated will be knowledgeable in determining design loads, designing wood structural members, and determining required connection details. Their competence in wood knowledge will be demonstrated by designing a multi-story wood building including structural members and connections. Additionally, the certificated student will be able to analyze and design the various building structure components constructed using mass timber, cross-laminated timber (CLT) and glued laminated timber (glulam).

Learning Outcomes

Learning Outcomes
Successfully complete three core courses in timber engineering: Timber Design I, Timber Design II, and Mass Timber Design. Design wood and mass timber members subjected to tension, compression, bending, combined compression and bending. Demonstrate competency in detailing connections used to join wood structural members.

Description and Justification for this request

Description of request	Justification for request
Create a graduate microcertificate in the subject area of timber engineering.	There is a growing demand for timber-based construction and facilities in the U.S. Arkansas boasts a thriving mass timber industry, and is poised to become a national leader in this field. Civil Engineering students need an in-depth exposure to wood and mass timber engineering principles to increase their marketability.

Upload attachments

Reviewer Comments

Ed Bengtson (egbengts) (01/15/25 1:55 pm): Rollback: Did you intend for the text "Placeholder-to be added" in the Program Requirements and Description section to appear?

Lisa Kulczak (lkulcza) (03/03/25 11:20 am): Reformatted certificate requirements to match catalog convention; removed next scheduled program review date, as MicroCertificates do not require review. However, the department should feel free to reference the MicroCert in the next review of its degree and/or certificate programs.

Lisa Kulczak (lkulcza) (03/03/25 11:31 am): Registrar's Office and College/Department are encouraged to review proposed program code.

Lisa Kulczak (lkulcza) (03/03/25 11:32 am): ATTENTION REGISTRAR: Please remove Undergraduate Council from the workflow.

Lisa Kulczak (lkulcza) (03/03/25 11:33 am): All courses are currently in workflow for fall 2025 implementation.

Gina Daugherty (gdaugher) (03/03/25 5:21 pm): Undergraduate Council removed from workflow.

Lisa Kulczak (lkulcza) (03/04/25 11:24 am): Adjusted catalog number sequence and titles of CVEG 59203 and CVEG 59303 in consultation with the dean's office and the Registrar's Office. The changes bring these two courses in alignment with each other.

Doug Miles (dmiles) (03/04/25 11:39 am): Changed CIP code 14.0801 > 14.0803 per email conversation with Kevin Hall.

Key: 1011