

Course APPL 089.001
Tree. Timber. Totem
Fall 2023

<p>Introduction</p>	<p>Trees, through their biology, meaning and uses, create an arc of understanding that spans what it means to be human. Ultimately, we will explore the meaning of trees and wood and why we seek happiness in nature, cherish wood and the creation of objects of wood. Tree: What is a tree from a biological perspective? How do they represent a complex community and play a vital role in life on the planet? Timber: What is the economy of wood internationally and in the state of NC? What are biophysical and material properties of trees that allow them to grow so large and be so useful to human society? Totem: Why do we respond emotionally to wood and choose it as a material in our lives and surroundings? How do we design and create objects of meaning from wood? We will walk in the woods, meet “wood people” from across the state and country and learn woodworking with projects of the students’ design and creation.</p>
<p>Methods</p>	<p>(Provide snapshot of how the class will be implemented and why. For example, group work, research-based, writing, presentations, participation, etc.)</p> <p>Students will engage with their inquiry through a combination of literature-based research from primary sources, writing and the creation of an object from wood in the university makerspace. In addition, students will choose to present their inquiry from a mode of their choice including class presentation, creating a video, interviewing someone who studies or uses wood or trees, or a mode of their own design.</p>
<p>Results</p>	<p>By the end of this course, students should be able to do the following:</p> <ul style="list-style-type: none"> • Understand how to formulate a question of inquiry and a hypothesis. • Know how to perform a literature review. • Know how to incorporate a review of the literature into a written document for informing a community. • Know how to establish the ways in which a question or hypothesis can be answered and how those approaches may have different methods. • Identify trees. • Design and fashion an object from wood.
<p>Discussion</p>	<p>The students will leave this course with an appreciation of the natural history of the world and the role that trees have played in establishing and sustaining our climate, providing fuel and materials for the development of civilization, and a place of refuge from an increasingly noisy world. They will understand how to develop important questions, how there are different approaches to find answers, and how to find the edge of what we know in the scholarly domain. Finally, the students will discover their power to create with their hands, to place tool to wood, and find the satisfaction of craft.</p>

Engineering Student Outcomes

1. Demonstrate constant curiosity about our changing world.
2. Integrate information from many sources to gain insight.
3. Identify unexpected opportunities to create extraordinary value and Persist through and learn from failure.
4. Identify personal passions•Fulfill commitments in a timely manner•Discern and pursue ethical practices•Contribute to society as an active citizen
5. An ability to communicate effectively with a range of audiences
6. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
7. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
8. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgement to draw conclusions
9. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Class Essentials

➤ CONTACT INFORMATION

Dr. (Insert name)

Teaching assistants

 Office Location

Murray Hall 1113

 Email

superfine@unc.edu

 Phone

919-423-4381

Not applicable

➤ LOGISTICS

 Class meeting times

Tu-Th 12:30 – 1:45 pm

 Class meeting location

Greenlaw 304

 Office Hours

Wed 4-5pm, Thursday 9-10 AM

 Required Texts & Software

- These will be made available to students in a timely manner on Canvas website

 Pre-requisites

- none

Resources

Lecture slides

I will post lecture slides to Canvas immediately before or after class.

Class recordings

I do not expect the class to be recorded. If a student is absent, we will discuss ways in which the material covered can be reviewed by the student.

Zoom attendance

While in person attendance is expected, I will attempt to make Zoom attendance available for students who need this option due to illness, COVID exposure, or other extenuating circumstances.

Course content

➤ COURSE TOPICS

- Main Topics #1: Trees – Natural history, Biology and Biophysics
 - Subtopics – How to ask great questions
 - Subtopics – Mindfulness of experiencing the forest
- Main Topics #2: Timber: Biophysics and material properties of trees
 - Subtopics – NC as the Birthplace of Forestry
- Main Topic 3: Totem – Woodworking skills
 - Subtopics – Social and economic impact of furniture in NC.
 - Subtopics – Mindfulness of craft

➤ COURSE SCHEDULE (APPROXIMATE – CHANGES WILL OCCUR!)

Week	Date	topics	Interviews/books
1	8.22	1. Trees- definition/evolution	Some Lessons from Metaphysics, (Y Gassett)
	8.24	2. Learning	The Tree (Tudge), Finding the Mother Tree (Simard)
2	8.29	1.Trees – biology, natural history	The Overstory, Richard Powell (B)
	8.31	2. Trees of UNC	<i>Tom Bythell (Int) Unc Arborist.</i>
3	9.7	1.Trees – Identification and meaning	All Trails app, Picture This app; Trees of the Carolina (Tekiela);
		2.Mindfulness: hiking, notebook	BeAM Training;
4	9.12	1.Trees -biophysics	BeAM Training;
	9.14	2. Research: Literature, experiments	
5	9.19	1.Timber – Biophysics of tress	Research Methods

	9.21	2.Ways of knowing	Identification and classification of trees
6	9.26	1.Timber -material properties	Braiding Sweetgrass (Kimmerer); Evolution of trees
	9.28	2.NC economy of tress	<i>Tom Bythell – Trees in the economy</i>
7	10.3	1.Timber-Why wood?	Perception and preference of Wood: Visual, Haptics
	10.5	2.Modes of Understanding	Thomas Day, Master Craftsman and Free Man of Color,(Marshall);
8	10.10	1.Totem – Craft and Value	<i>Jerome Bias (int) (Southern Heritage Furniture)</i>
	10.12	2.Technique and Mindset	<i>Susan Cohen/Tom Bythell – Carolina Tree Heritage</i>
9	10.17	1.Totem – Furniture and NC	<i>Andrew Conboy (Int) TikTok arborist</i>
		2.Social Dimension of NC Furniture	
10	10.24	1.Totem – Musical Instruments	The Life of a Leaf (Vogel)
	10.26	2.Craft now in NC	<i>Prof. Erika Wise – Chronodendrology/Lab Tour</i>
11	10.31	1.Totem - Musical Instruments	American Luthier: Carlene Hutchins (Whitney)
	11.2	2.Physics of wood/instruments	
12	11.7	1.Totem – Inspiration for Furniture	<i>Susan Cohen – Threats to NC Forests/Silviculture</i>
	11.9	2.Craft now in NC	
13	11.14	1.Totem -	<i>Forest Historical Society (Int); America’s first Forest; Cradle of Forestry in America (Schenck)</i>
	11.16		
14	11.21	1.Totem	
15	11.28		
	11.30		
16	12.5		

To help you succeed

Health

Your mental and physical health is very important to me! Let me know how I can support you and your health this semester. If you need accommodations from ARS, please let me know ASAP.

Course Expectations and policies

Attendance:

- Class attendance is required and I will record attendance. Let me know ahead of time if you are missing class for any reason and it will be an excused absence. Please do not come to class if you are not feeling well or under quarantine for COVID exposure.
- While in person attendance is expected, I may be able to provide attendance vis zoom, but I cannot guarantee this. Let me know ahead of time if you need to attend via Zoom.

➤ COURSE EXPECTATIONS AND POLICIES

- Students will find their reason for taking this course, establish an inquiry and pursue their answer.
- Students will respect their classmates, honor the inquiries of the classmates and be a community of support and exploration.
- Students will receive training in BeAM, the university system of makerspaces. They will establish a responsible schedule of executing their project.
- Watch all online lectures as assigned and do all reading assignments before coming to class.
- During class time, do not use your phone or computer for something unrelated to class; research shows that this is distracting to other students in the class. If there is an urgent situation, then you can leave the classroom to use your phone or computer.
- Come to every scheduled class and lab session and let me know ahead of time if you cannot attend.
- Turn in assignments on time; if an assignment is up to 24 hours late, there is a 25% deduction, and if an assignment is beyond 24 hours late, you will get a zero. If you need an extension, you must ask at least 24 hours before the time that the assignment is due (you can avoid a grade deduction this way).

Assignments & Evaluation

➤ YOUR COURSE GRADE

16%: Questions	Students will be challenged to generate questions all through the course. These will be curated by the students and the best of their questions will be the basis of the research paper submitted at the end of the semester.
26%: Research Paper	Students will choose a question from the set that they are developing. They will then pursue an answer to the question through library research that is presented as a written report including primary sources.
16%: Journal/notebook	Students will maintain a notebook throughout the course which will contain their reflections on their interactions with trees, their questions and hypothesis, and their plans and execution of their wood object. The notebook should convey the intellectual and creative progression of the student through the course. This includes self-reflection on the experience of encountering trees on campus and on hikes. Another section will be in the designs and problem solving encountered in executing the wood project.
25%: Woodworking Gift project	Each student will produce an object of wood in the university makerspaces, and complement the object with a written paper on the meaning of the object, how that meaning is connected to the choice of wood, and the source of the wood and its biology.
17% Time Lapse Project	You will create a gif from a series of pictures of your tree during the semester.
100%: total	

➤ GRADE INTERPRETATION & HONOR CODE

Your final course grade will be determined from a standard scale:

A	93+
A-	90.0 - 92.9
B+	87.0 - 89.9
B	83.0 - 86.9
B-	80.0 - 82.9
C+	77 - 79.9
C	73 - 76.9
C-	70 - 72.9
D+	67 - 69.9
D	60 - 66.9
F	<60

ACADEMIC HONESTY

There will be clear communication if assignments are individual or group. For individual assignments, while I encourage collaboration, it is a violation of the honor code if a student duplicates work or obtains solutions from another student and submits it on their own. Please reference the honor code: <http://honor.unc.edu>.

➤ MAJOR COURSE DUE DATES (APPROXIMATELY)

Hike 1	September 26, 2023
Question Table 1	September 28, 2023
Question Table 2	October 5, 2023
Research Paper start	October 17, 2023
Hike 2	October 24, 2023
Final Research Paper	November 7th, 2023
Hike 3	November 16, 2023
Time Lapse Project	December 5, 2023
Bench Project Due	December 5, 2023

Student Resources

SEE, SAY, DO SOMETHING

We're happy you are here and eager to learn. Despite our best intentions to follow a plan, life may throw us a curve ball.

CAPS is strongly committed to addressing the mental health needs of a diverse student body through timely access to consultation and connection to clinically appropriate services, whether for short or long-term needs. Go to their website: <https://caps.unc.edu/> or visit their facilities on the third floor of the Campus Health Services building for a walk-in evaluation to learn more. (source: *Student Safety and Wellness Proposal for EPC, Sep 2018*)

If you or someone you know is experiencing some distress or you are concerned about the well-being of a student, please report it here: <https://deanofstudents.unc.edu/carereport>. It is important to support one another. If you see something, say, and do something.

ACCESSIBILITY RESOURCES

The University of North Carolina at Chapel Hill facilitates the implementation of reasonable accommodations, including resources and services, for students with disabilities, chronic medical conditions, a temporary disability or pregnancy complications resulting in barriers to fully accessing University courses, programs and activities.

Accommodations are determined through the Office of Accessibility Resources and Service (ARS) for individuals with documented qualifying disabilities in accordance with applicable state and federal laws. See the ARS Website for contact information: <https://ars.unc.edu> or email ars@unc.edu.

Title IX Resources

Any student who is impacted by discrimination, harassment, interpersonal (relationship) violence, sexual violence, sexual exploitation, or stalking is encouraged to seek resources on campus or in the community. Please contact the Director of Title IX Compliance (Adrienne Allison – Adrienne.allison@unc.edu), Report and Response Coordinators in the Equal Opportunity and Compliance Office (reportandresponse@unc.edu), Counseling and Psychological Services (confidential), or the Gender Violence Services Coordinators (gysc@unc.edu; confidential) to discuss your specific needs. Additional resources are available at safe.unc.edu.

Community Standards in Our Course

As long as it is possible to do so safely, we will be meeting in person this semester. I understand the ongoing COVID-19 pandemic may require changes to this plan and will be monitoring the situation closely. If I need to change the format of the course temporarily due to outbreaks of illness, I will announce this via email and the course Sakai site.

I reserve the right to make changes to the syllabus, including project due dates and test dates (excluding the officially scheduled final examination), when unforeseen circumstances occur. These changes will be announced as early as possible so that students can adjust their schedules.