



Introduction to Wood Science and Forest Products Course

September 11-13, 2018

Mississippi State University

Tentative Agenda

(Topics and Instructors subject to change)

Day 1 – Tuesday, 9/11/2018		
Time	Topic	Instructor
7:30 am	Van leaves from Hotel	
8:00	Welcome and introduction	Rubin Shmulsky
8:15	Forest Management: Discussion of various objectives and obstacles associated with growing trees for timber production	Misty Booth
	Timber Harvesting: Provides information on how standing trees/ forests are sustainably harvested and delivered to sawmills or other timber conversion facilities; followed by replanting and reforestation	Misty Booth
9:45	Break	
10:00	Wood anatomy and properties: Overview of the many anatomical difference between and among trees. Information on how anatomy and structure can influence strength, coatings, gluing, preservative treating, and other factor	Frank Owens
11:00	Density and Specific Gravity: The nature of wood density. Why some woods are heavier than others. How these physical properties influences many others such as strength, stiffness, pulp yield, etc.	Fred Franca
12:00	Lunch	
1:00 pm	Wood and Water: Relationship between wood and its affinity for water. How it adsorbs and desorbs moisture with the atmosphere throughout its service life, bound and free water in wood	Fred Franca
2:00	Dimensional change: The nature of shrinking and swelling in response to environmental moisture and humidity changes. How dimensional change can impact things like gaps in flooring and cause cupping in deck boards	Hyungsuk "Thomas" Lim
3:00	Lumber Production: Presentation of the typical sawing processes used to convert round logs into rectangular boards for both hardwoods and softwood	Rubin Shmulsky
4:30	Adjourn for the day – Van back to Hotel. Dinner on your own	



Day 2 – Wednesday, 9/12/2018		
Time	Topic	Instructor
7:30 am	Bus Leaves MSU (or Hotel) for Mill Tour. Tentative: Southeastern Timber Products Lumber Company and Sawmill, Ackerman, MS	Rubin Shmulsky
12:00	Lunch and return to MSU	
1:00 pm	Wood Drying: Air and kiln drying overview. Why it is necessary to remove water from wood, how water is typically removed, along with kiln operations	Rubin Shmulsky
2:30	Mechanics & Design Values: Bending strength and stiffness; compression, shear, and tensile strength. Non-destructive testing. How we evaluate and predict the strength of wood and how that is used to design safe structures.	Fred Franca
4:00	Adjourn for the day – Van back to Hotel. Dinner on your own	
Day 3 – Thursday, 9/13/2018		
Time	Topic	Instructor
7:30 am	Van leaves from Hotel	
8:00	Importing and exporting lumber products	Frank Owens
9:00	Engineered Wood Products: Overview of the many families of wood composite products (glulam, LVL, LSL, plywood, OSB, CLT), their similarities and differences, and various performance characteristics of each	Hyungsuk “Thomas” Lim
10:20	Break	
10:30	Wood Durability and Protection: How and why wood decays, insects such as termites, ants, and beetles, other detractors, and steps that are commonly taken to protect and preserve wood in an effort to enhance its service life.	Beth Stokes
11:30	University outreach with Industry & Commerce	Rubin Shmulsky
12:00	Lunch and Adjourn	