

Syllabus

Attachment

Course Title: Advanced Wood Chemistry	Class: Institute of the first year	
Instructor: Ming-Hung Tu	Credit: 2	<input type="checkbox"/> Required <input checked="" type="checkbox"/> Elective
Prerequisite:	Course Hours: 2	
1. Course Objectives: To understand the variation of chemical composition in wood, among woods. To introduce the usage and the future trend in wood industry. So as to help the students meet the needs for future employment and research reference.		
2. Course Format and Evaluation: 1. Mid-term Exam. 30% 2. Final Exam. 30% 3. Daily check 40% Credit Requirements:		
3. Course Schedule: 1. Variation of Chemical Composition in Wood 2. Introduction to Biochemistry of Tree 3. Formation of Heartwood 4. Reactivity of Cellulose 5. Additives of Cellulose 6. Derivatives of Cellulose 7. Analysis of Hemicellulose 8. Reactivity of Hemicellulose 9. Color Reaction of Lignin 10. Physical Properties and Chemical Structure of Lignin 11. Reactivity of Lignin 12. Usage of Wood Minor Components		
4. Textbooks and Readings: 1. 丁昭義(1990)木材化學，華香園出版社。 2. 王秀華(2002)木材化學及其應用，復文書局 3. Browning, B. L. (1963) The Chemistry of Wood 4. Eero Sjostrom(1981)Wood Chemistry: Fundamentals and Applications, Academic Press, Inc. 5. Eero Sjostrom, Raimo Alen eds. (1999) Analytical Methods in wood Chemistry, Pulping, and Papermaking		