



School of Bioinnovation and Bio-based Product Intelligence (SCIN)
Program in Bioinnovation (International Program, Multidisciplinary Program)
Course: SCIN 391 Wood and Phytomaterials

Degree Bachelor Master Doctoral
Faculty of Science

Course Code and Course Title	English: SCIN 391 Wood and Phytomaterials Thai: วิชา ๓๙๑ ไม้และวัสดุจากพืช
Number of Credits	2 (2-0-4)
Curriculum and Course Type	Program of Study Bachelor's Degree Program in Science and Technology (International Program, Multidisciplinary Program)
Course Coordinator	Tatpong Tulyananda, Ph.D Address: School of Bioinnovation & Bio-based Product Intelligence, SC1-308 Faculty of Science, Mahidol University, Salaya Tel: 0-2201-5000 email: tatpong.tul@mahidol.edu
Semester/Year of Study	Second semester (2/2019) / 3 rd Year
Prerequisite	None
Co-requisite	None
Day/Time/Study Site Location	By appointment Faculty of Science, Mahidol University, Salaya Campus
Date of Latest Revision	10 Jan 2021

Course Learning Outcomes (CLOs)

After successful completion of this course, students are able to

- CLO1 Learn history, ethics and applications of woods and phytomaterials
- CLO2 Understand primary and secondary sources of phytomaterials
- CLO3 Know types of phytomaterials and cultural application
- CLO4 Understand wood texture development
- CLO5 Remember composition and synthesis pathway
- CLO6 Can use image analysis software in wood quality analysis

Objectives of Development / Revision

First revision

Course Description

Primary and secondary sources of phytomaterials. History and applications of woods and various phytomaterials. Types of phytomaterials. Wood texture development. Composition, synthesis structure, and origins. Simple wood quality analysis with tools and image analysis software



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Credit Hours / Trimester

Theory (Hours)	Addition Class (Hours)	Laboratory/Field trip/ Internship (Hours)	Self-study (Hours)
15 Hours/Semester (1 Hours x 15 Weeks)	-	-	30 Hours/Semester (2 Hours x 15 Weeks)

Number of Hours per Week for Individual Advice

By appointment online or at SC1-308 Faculty of Science, Mahidol University, Salaya Campus

Evaluation of the CLOs

Course Learning Outcomes	Measurement Method			Weight (%)
	Class Attendance, Participation and Behavior in Class	Written Exam	Home work/Project	
CLO1 Learn history, ethics and applications of woods and phytomaterials	5%	10%	-	15%
CLO2 Understand primary and secondary sources of phytomaterials	5%	10%	-	15%
CLO3 Know types of phytomaterials and cultural application	5%	10%	-	15%
CLO4 Understand wood texture development	5%	5%	-	10%
CLO5 Remember composition and synthesis pathway	5%	5%	-	10%
CLO6 Can use image analysis software in wood quality analysis	5%	-	30%	35%
Total	30%	40%	30%	100%

Measurement and evaluation

After completion of the evaluation process each student is assigned a criterion-referenced grade (as shown in the table below). Evaluation and achievement will be justifying according to Faculty and University code, conducted by grading system of A, B+, B, C+, C, D and F. To pass this course, student must earn a grade of a least D.

Total Percentage of Evaluation	Below 50	50-54	55-59	60-64	65-69	70-74	75-79	80-100
Grade	F	D	D+	C	C+	B	B+	A



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Teaching Schedule 2nd Semester of Academic Year 2019

English: SCIN 391 Wood and Phytomaterials 2 (2-0-4)

Week	Date	Topic	Hour		Instructor
			Lecture	Lab	
1	21 Jan	Introduction	2	0	Dr. Tatpong Tulyananda
2	28 Jan	No Class			
2	4 Feb	History of woods and various phytomaterials	2		
3	11 Feb	Applications of phytomaterial	2		
4	18 Feb	Applications of phytomaterial II	2		
5	25 Feb	Types and sources of phytomaterial	2		
6	4 Mar	Individual presentation I	2		
7	11 Mar	Individual presentation II	2		
Midterm examination (15-19 Mar)					
10	25 Mar	Wood development	2	0	Dr. Tatpong Tulyananda
11	1 Apr	Wood synthesis	2		
12	8 Apr	Structure of wood	2		
13	15 Apr	No class			
14	22 Apr	Discussion session	4		
15	29 Apr	Final presentation I	3		
16	6 May	Final presentation II	3		
Final examination (10-21 May)					