

Module Code	19349038	Course Term
Course Subject Name	<b>Biomaterial Science</b>	<b>Spring</b>
Course Tutor	<b>Tetsuya NAKAO</b>	<b>The 6th Semester</b>
Credit	2	Taught Day
Schools	School of Agriculture	<b>TUE-1</b>
Taught Year	The 3rd year	
Campus	Ito campus	
Subject Area	Lecture	
Course Subject Classification	Specialized Subjects	
Course Requirements		
Course Requirement (Pre-requisite)		
Tuesday, 1st period (08:40-10:10)		

### Course Outline

Students can learn significant issues in development of new types of biomaterials from sustainable and eco-friendly forest products. Students will learn the basics of broad sense of biomaterials from forest resources through class lectures.

### key words

biomaterial, wood science, wood chemistry, wood structure, wood engineering, wood fiber physics, wood biology

### Study Objectives (General)

This course is designed to direct students to understand new developments of biomaterials from sustainable and eco-friendly forest resources.

### Study Objectives (Specific) The course aims to achieve the following:

- Students can understand the basics of wood science and engineering.
- Students can extend the knowledge of science on bio-based materials.
- Students can understand the physicochemical processing of wood materials.
- Students will learn the potential and future prospects of forest biomaterials.

### Course Plan

Tentative Weekly Schedule:

- Overview of Current Biomaterial Science (Prof. Tetsuya Nakao)
- Overview of Wood Physics (Prof. Tetsuya Nakao)
- Overview of Wood Engineering I (Assoc. Prof. Noboru Fujimoto)
- Overview of Wood Engineering II (Assoc. Prof. Noboru Fujimoto)
- Overview of Wood Structure (Assist. Prof. Hiroki Sakagami)
- Overview of Wood Chemistry I (Prof. Takuya Kitaoka)
- Overview of Wood Chemistry II (Prof. Takuya Kitaoka)
- Overview of Wood Biotechnology I (Assoc. Prof. Hirofumi Ichinose)
- Overview of Wood Biotechnology II (Assoc. Prof. Hirofumi Ichinose)
- Overview of Biomaterial Design I (Prof. Tetsuo Kondo)
- Overview of Biomaterial Design II (Prof. Tetsuo Kondo)
- Overview of Biomacromolecules I (Assoc. Prof. Daisuke Tatsumi)
- Overview of Biomacromolecules II (Assoc. Prof. Daisuke Tatsumi)
- Overview of Bio-nanomaterials (Assist. Prof. Shingo Yokota)
- Overview of Future Biomaterial Science (Prof. Tetsuya Nakao)

### Course Approaches

**Textbooks** All learning materials will be provided by each professor.

### Reference Books

### Study consultation (office hour)

Office: Building West No. 5, Room 225  
Office Hour: 15.00-16.00 every Tuesday (T. Nakao and other professors)  
Email: tnakao822@agr.kyushu-u.ac.jp (T. Nakao)  
Phone: 092-802-4660 (T. Nakao)

### Exams/Results

Lecture attendance is mandatory.

### Evaluation Method

The topic for each report will be provided in each lecture.

**Others** Full attendance and submission of 15 reports are required to get class credit.