Syllabus Reference

Course title	Introduction to Biomolecular Simulation		
Term	後期 2nd Half		
Credit(s)	1		
The main day		The main period	
School/Program	School of Physical Sciences		
Department/Program	Common Subjects of Physical Sciences		
Category	Common Subjects of Physical Sciences		
Lecturers			

Instructor

Full name
* OKUMURA HISASHI
OKAZAKI KEIICHI

Outline	We will give a lecture on the knowledge to perform molecular simulations of biological systems. In particular, we will explain the outline of analytical mechanics and statistical mechanics, the basics of molecular dynamics simulation, all-atom/coarse-grained molecular force fields, methods for efficiently simulating biomolecules such as generalized-ensemble algorithms, and methods for analyzing simulation results.
Goal	Students learn methods for elucidating the static and dynamic properties of biomolecules at the molecular level based on molecular simulation methods.

Grading system

01:Four-grade evaluation (A,B,C,D)

Grading policy	Participation in class 50%, Report 50%
Lecture Plan	Methods of biomolecular dynamics simulation Analysis of biomolecular dynamics simulation
Location	Room 301, IMS
Language	Japanese or English
Textbooks and references	Understanding Molecular Simulation (Second Edition) From Algorithms to Applications Daan Frenkel and Berend Smit Academic Press