COURSE DETAIL

INTRODUCTION TO BIOMOLECULE ANALYSIS

Country
Korea, South

Host Institution
Korea Advanced Institute of Science and Technology (KAIST)

Program(s)
Korea Advanced Institute of Science and Technology, KAIST

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Chemistry

UCEAP Course Number
185

UCEAP Course Suffix

UCEAP Official Title
INTRODUCTION TO BIOMOLECULE ANALYSIS

UCEAP Transcript Title
BIOMOLECULE ANLYSIS

UCEAP Quarter Units
4.50

UCEAP Semester Units
3.00

Course Description

This course provides an overview of a wide range of analysis methods for biomolecules (mostly biological macromolecules) such as proteins and DNA/RNA, and covers methods of current research of diverse fields in biochemistry

Topics include Biomolecules, Preparation/separation (chromatography, electrophoresis), Detection (western blot, IP, ELISA, etc.), Imaging I (fluorescence, super resolution, AFM), Scattering (SAXS, DLS), Sequencing (NCS, single cell sequencing), Mass spectrometry, Structure determination (X-ray crystallography, Cryo-EM), Interaction (SPR, ITC), Single molecule techniques (FRET, magnetic tweezer.

While there are no prerequisites for the course, coursework in Biochemistry I, Physical Chemistry I & II may be helpful.

Language(s) of Instruction
English

Host Institution Course Number
CH 481,CH.40044

Host Institution Course Title
INTRODUCTION TO BIOMOLECULE ANALYSIS

Host Institution Course Details
https://erp.kaist.ac.kr/com/lgin/SsoCtr/initExtPageWork.do?link=estblSubjt

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Course Last Reviewed

2025-2026

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