Biomolecular Engineering

2 units (selection)

Takeshi Omasa · Professor / Biological Functions, Biological Science and Technology, Earth and Life Environmental Engineering

Target〉 To learn recent progress of biomolecular engineering for bio-based production.

Outline〉 To learn recent progress of biomolecular engineering for next-generation bio-based production.

Style〉 Lecture

Keyword〉 ***biotechnology, bio-based production, environment***

Fundamental Lecture〉 "**Advanced Microbiological Engineering**"(1.0)

Relational Lecture〉 "**Technology of Enzyme Functions**"(0.5)

Requirement〉 undergraduate biotechnology is required

Goal〉 To understand fundamental engieering aspects forbio-based production

Schedule〉

1. mammalian cell cultivation for therapeutic antibody production
2. Production of functional lipids
3. Bio-based recycling technology
4. Metal biotechnology
5. Soil bacteria and its application
6. Bio-based production from biomass
7. Symbiosis and biotechnology
8. Color in biotechnology
9. Biotechnology in space
10. Algorisms in life
11. Biotechnology in global environment
12. Biotechnology in traditional medicine
13. Supercritical fluid in biotechnology
14. Food biotechnology
15. Cell processing technology
16. Term-end exam report

Evaluation Criteria〉 Term-end exam report (100%)

Textbook〉 To be introduced in the class

Reference〉 コロナ社「バイオプロダクション ―ものつくりのためのバイオテクノロジー―」化学工学会 バイオ部会編

Contents〉 http://cms.db.tokushima-u.ac.jp/cgi-bin/toURL?EID=216845

Student〉 Able to be taken by only specified class(es)

Contact〉

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