Engineering of Biological Environment

2 units (selection)

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Target〉 To understand recent studies on engineering of biological environment.

Outline〉 Advanced lectures for recent studies on engineering of biological environment

Style〉 Lecture

Keyword〉 ***environment, biology, engineering***

Requirement〉 N/A

Notice〉 N/A

Goal〉

1. To understand general concepts of biomass
2. To understand biomass conversion engineering
3. To understand general concepts of bioremediation

Schedule〉

1. General concepts of biological environment
2. Characteristics of biomass and its effective utilization
3. Pretreatment of biomass by physical method
4. Pretreatment of biomass by chemical method
5. Pretreatment of biomass by biological method
6. Conversion of biomass into useful materials
7. Conversion of biomass into useful materials
8. Process system engineering for effective conversion of biomass
9. Reports
10. Classification, role, and application method of environmental organism
11. Bioremediation in water environment
12. Bioremediation in air environment
13. Bioremediation in soil environment
14. Environmental hormones, chemical pollutions and ethics
15. Recent topics and trend of industry for engineering of biological environment
16. Final Reports

Evaluation Criteria〉 Evaluation of Reports

Textbook〉 Prints

Contents〉 http://cms.db.tokushima-u.ac.jp/cgi-bin/toURL?EID=216734

Contact〉

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(Office Hour: 水曜日 17:00-18:00)

Note〉

- ◇ When you take this class, it is necessary to do preparation for 2h and revies for h every 2h class for your understanding and taking credit.
- ◇ 成績評価に対する平常点と試験の比率は 50:50 とする．平常点には講義への参加状況，演習への回答及びレポートの提出状況と内容を含み，試験は中間テストと最終試験の成績を含む．