

## Life Science

2 units (selection)

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**Target)** Understanding of significance of protein in biotechnology

**Outline)** Basics of structure, function and application of protein are introduced

**Style)** Lecture

**Keyword)** *protein, enzyme, biotechnology*

**Goal)**

1. Understanding of multiple functions of proteins
2. Understanding of principle of protein engineering and its application

**Schedule)**

1. Introduction of life science
2. History of life science
3. Structure and function of DNA and RNA
4. mRNA is a template of protein
5. Duplication of DNA
6. Regulation of protein expression
7. Human Genetics
8. Genetic disease
9. DNA diagnosis
10. Structure and function of protein
11. Principle of gene technology (1)
12. Principle of gene technology (2)
13. Protein engineering
14. Future of life science (1)
15. Future of life science (2)
16. Preparation of report

**Evaluation Criteria)** Evaluation by report

**Textbook)** To be introduced in the class

**Reference)** To be introduced in the class

**Contents)** <http://cms.db.tokushima-u.ac.jp/cgi-bin/toURL?EID=216740>

**Contact)**

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**Note)** When you take this class, it is necessary to do preparation for 2h and review for 2h every 2h class for your understanding and taking credit.