

PLANT AND ANIMAL DIVERSITY

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DESCRIPTION

This course develops good knowledge of students on diversity of plant and animal through explanation, observation, discussion, interpretation, identification, presentation, accomplishing of assignments, and conducting a small project on the lifestyle of selected organisms. After attending the entire course, the students will be able to understand diversity of living organisms, classification and its principles, nomenclature, and the life of plant and animal. Approaches implied in this course are expository and science skill process, and method includes lecture, discussion, assignments, and laboratory work. Media of PowerPoint, E-Learning, Books review, microscope, loupe, and various types of plant and animal are a numerous teaching materials used in this course. Evaluation will consider into presences, mid and final exam for both lecture and laboratory work, and individual and/or group tasks i.e., herbarium, drawing book, report book, and small project on lifestyle of selected plant or animal.

SYLLABY

1. Identity of the course

Name	: Plant and Animal Diversity
Code	: SE406
Semester Credit Unit	: 4
Semester	: Fourth Semester
Type of Course	: Concentration and Competency
Study Program	: International Program on Science Education (IPSE)
Pre-requirement	: Fundamental of Biology

2. Objective

After attending the entire course, the students will be able to understand diversity of living organisms, classification and its principles, nomenclature, and the life of plant and animal.

3. Contain of the course

The course focuses on diversity and classification of living organisms. The major topics include lower plant diversity (Algae, Fungi, Lichen, Bryophyta, Pteridophyta), higher plant diversity (Pinophyta and Magnoliophyta), invertebrate (Protozoa, Porifera, Coelenterata, Helminth, Annelida, Arthropoda, Mollusca, Echinodermata), and vertebrate (Hemichordata and Chordata).

4. Methodology of Learning

Approaches	: Expository and Science Skill Process
Methods	: Lecture, Discussion, Assignments, and Laboratory Work
Media	: Media of PowerPoint, E-Learning, Books review, microscope, loupe, and various types of plant and animal

5. Evaluation

Evaluation will consider into presences, mid and final exam for both lecture and laboratory work, and individual and/or group tasks i.e., herbarium, drawing book, report book, and small project on lifestyle of selected plant or animal.

6. Topics

Week 1	:	Introduction to diversity and classification of plant and animal
Week 2	:	Algae
Week 3	:	Fungi
Week 4	:	Lichen
Week 5	:	Bryophyta
Week 6	:	Pteridophyta
Week 7	:	Pinophyta
Week 8	:	Magnoliophyta
Week 9	:	Mid Exam
Week 10	:	Protozoa
Week 11	:	Porifera, Coelenterata, Helminth
Week 12	:	Annelida and Arthropoda
Week 13	:	Mollusca and Echinodermata
Week 14	:	Hemichordata
Week 15	:	Chordata
Week 16	:	Final Exam

7. References

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2. Depdikbud. 1982. Program Akta Mengajar V-B. Komponen Bidang Studi. Prinsip-prinsip Biosistematik
3. Smith, G.M. 1992. Cryptogamic Botany. Volume I. Algae and Fungi, Second Edition. New Delhi : Tata MC. Graw-Hill Publishery Company, Ltd.
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5. Radfort, A.E. 1986. Fundamentals of plant systematics. New York: Harper International Edition
6. Weier, T.E., et al. 1982. Botany: an introduction to plant biology. New York: John Wiley and Sons
7. Villee, C.A. et al. 1984. General Zoology Sixth Edition. CBS College Publishing