

COURSE OUTLINE (SAP)

Course : Plant and Animal Diversity
Code : SE406
Course characteristic : Compulsory
Program : International Program on Science Education (IPSE)
level : S-1
Semester : Fourth Semester
Credit : 4
Pre-requirement : Fundamental of Biology
Lecturer : Topik Hidayat Ph.D.

COURSE 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.

COURSE 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.

Week	Topic	Objectives	Learning Activities	Assessment method	Ref.
1	Introduction to diversity and classification of plant and animal	Student understands The main role of lecturer Biodiversity and classification The principles of taxonomy The purpose of classification and nomenclature	Student discusses about general introduction to the course (course strategy and evaluation within one semester) and biodiversity and classification of plant and animal	Personal communication assessment (on teaching and learning process) <i>selected response</i> assessment (multiple choice –on Mid term exam).	2, 5, 6
2	Algae	Students understand the diversity and classification of Algae	Students discuss about characteristic, classification, and the role of Algae	Personal communication assessment (on teaching and learning process) <i>selected response</i> assessment (multiple choice –on Mid term exam).	1, 3
3	Fungi	Students understand the diversity and classification of Fungi	Students discuss about characteristic, classification, and the role of Fungi	Personal communication assessment (on teaching and learning process) <i>selected response</i> assessment (multiple choice –on Mid term exam).	1, 3
4	Lichen	Students understand the diversity and classification of Lichen	Students discuss about characteristic, classification, and the role of Lichen	Personal communication assessment (on teaching and learning process) <i>selected response</i> assessment (multiple choice –on Mid term exam).	1, 3
5	Bryophyta	Students understand the diversity and classification of Bryophyta	Students discuss about characteristic, classification, and the role of Bryophyta	Personal communication assessment (on teaching and learning process) <i>selected response</i> assessment	1, 4

				(multiple choice –on Mid term exam).	
6	Pteridophyta	Students understand the diversity and classification of Pteridophyta	Students discuss about characteristic, classification, and the role of Pteridophyta	Personal communication assessment (on teaching and learning process) <i>selected response</i> assessment (multiple choice –on Mid term exam).	1, 4
7	Pinophyta	Students understand the diversity and classification of Pinophyta	Students discuss about characteristic, classification, and the role of Pinophyta	Personal communication assessment (on teaching and learning process) <i>selected response</i> assessment (multiple choice –on Mid term exam).	5, 6
8	Magnoliophyta	Students understand the diversity and classification of Magnoliophyta	Students discuss about characteristic, classification, and the role of Magnoliophyta	Personal communication assessment (on teaching and learning process) <i>selected response</i> assessment (multiple choice –on Mid term exam).	5, 6
9			Mid Exam		
10	Protozoa	Students understand the diversity and classification of Protozoa	Students discuss about characteristic, classification, and the role of Protozoa	Personal communication assessment (on teaching and learning process) <i>selected response</i> assessment (multiple choice –on Final exam).	7
11	Porifera Coelenterata Helminth	Students understand the diversity and classification of Porifera, Coelenterata, and Helminth	Students discuss about characteristic, classification, and the role of Porifera, Coelenterata, and	Personal communication assessment (on teaching and learning process) <i>selected response</i> assessment (multiple choice –on Final exam).	7

12	Annelida Arthropoda	Students understand the diversity and classification of Annelida and Arthropoda	Helminth Students discuss about characteristic, and the role of Annelida and Arthropoda	Personal communication assessment (on teaching and learning process) <i>selected response</i> assessment (multiple choice –on Final exam).	7
13	Mollusca Echinodermata	Students understand the diversity and classification of Mollusca and Echinodermata	Students discuss about characteristic, and the role of Mollusca and Echinodermata	Personal communication assessment (on teaching and learning process) <i>selected response</i> assessment (multiple choice –on Final exam).	7
14	Hemichordata	Students understand the diversity and classification of Hemichordata	Students discuss about characteristic, and the role of Hemichordata	Personal communication assessment (on teaching and learning process) <i>selected response</i> assessment (multiple choice –on Final exam).	7
15	Chordata	Students understand the diversity and classification of Chordata	Students discuss about characteristic, and the role of Chordata	Personal communication assessment (on teaching and learning process) <i>selected response</i> assessment (multiple choice –on Final exam).	7
16			Final Exam		

Assessment method

- Mid term exam
- Final term exam
- Personal communication assessment

Individual and/or group tasks

Teaching materials/ Teaching Aids

LCD and power point presentation
Various types of plant and animal specimens

References

1. Yudianto, SA (1992) Pengantar Cryptogamae (Sistematika Tumbuhan Rendah). Bandung : Tarsito
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.
4. Smith, G.M. 1979. Cryptogamic Botany. Volume II. Bryophytes and Pteridophytes, Second Edition. New Delhi : Tata MC. Graw-Hill Publishery Company, Ltd
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

