

KSH 212 Wildlife Behaviour

Credit	: 3(2-3)
Semester	: 4 (even)
Course format	: Classroom lectures and discussions, 2 hours (100 minutes) per week and course practice equal to 3 hours (150 minutes) per weeks. 14 weeks
Pre-requisite	: -
Lecturers	: Mr. Dones Rinaldi, MScF (Course coordinator) Dr. Yeni A. Mulyani, MSc

Course Description

This course explains the history of the development of wildlife behaviour science, wildlife behaviour development, wildlife behaviour basic mechanisms, motivation and learning process, behaviour classification and pattern, communication behaviour, social behaviour and reproduction, home range, territory, migration, spatial orientation and introduction to wildlife behaviour methodologies.

Course Objectives

This course has the objective of providing students with basic understanding in wildlife behaviour so that students will be able to explain the principles of wildlife behaviour and apply them in wildlife management.

Learning Outcomes

1. General learning outcomes

Upon successful completion of this course the students will be able to:

Explain the development and scope of wildlife behaviour, wildlife behaviour classification and methodologies and relating basic theories with wildlife conservation.

2. Specific learning outcomes

Upon successful completion of this course the students will be able to:

- a. Recognize the aim, objectives and benefits of studying wildlife behaviour and its scope and relation between wildlife behaviour science and other sciences
- b. Describe history and development of wildlife behaviour science

- c. Explain the development of prenatal and post natal wildlife behaviour, early experience and other influencing factors
- d. Explain basic principles of wildlife behaviour
- e. Understand and explain behaviour motivation and learning process on wildlife
- f. Recognize and describe methods and performing data analysis for wildlife behaviour research
- g. Explain wildlife behaviour classification and other important behaviours in species conservation
- h. Explain wildlife social behaviour
- i. Recognize and explain the behaviour of wildlife movement for space

Structure of Course Delivery

1. Classroom lectures and discussion. Guest lecturer will be invited to give lecture on certain topics, specifically on the behaviour of certain taxa that is of interest to the students.
2. Course practice. Course practice will be conducted in class and out of class.
3. Individual and group assignments. Reading of articles on wildlife behaviour will be assigned to students and students will be asked to provide summaries to be discussed in class.

Major References

1. Barnard, C.J. 1983. Animal Behaviour. Wiley-Interscience Publication, John Wiley & Sons. New York.
2. Kamil, T.W. 1983. Perilaku Binatang (terjemahan Animal Behavior. Pustaka Time Life).
3. Lehner, P.N. 1979. Handbook of Ethological Methods. Garland STPM Press. New York and London.
4. Slater, P. and Alexander, R.M (Eds). 1986. The Encyclopaedia of Animal Behaviour and Biology. Equinox (Oxford) Ltd. Oxford.
5. Suratmo, F.G. 1979. Prinsip Dasar Tingkah Laku Satwa Liar. School of Environmental Conservation management (ATA-190). Bogor..
6. Poole, T.B. 1985. Social Behaviour in Mammals. Blackie & Sons Limited. Glasgow.

Teaching Material Support

The choice of media and type of technology use include:

1. Face-to-face contact.
2. Printed power point presentation. Text and power point presentation will be available for each discussion topic.
3. Reading materials. Students are encouraged to read the recommended major references. Lectures will be allowed to add additional materials that are related to the topic in discussion.
4. Computer
5. Projector Infocus

Course Outline

Topics	Sub-topics	Bloom's Taxonomy	Week
Introduction	<ol style="list-style-type: none"> 1. Introduction 2. Aim/objectives and benefits 3. Scope of course 4. relation to other courses 5. Lecture delivery/course practice and valuation system 	C1	1
History and development of wildlife behaviour science	<ol style="list-style-type: none"> 1. Darwin theory 2. Psychology, Naturalist (behaviourism), Instinct and learning 	C1	2
Development of wildlife behaviour	<ol style="list-style-type: none"> 1. Pre-natal behaviour 2. Post-natal behaviour 3. Early experience 4. Factors effecting the development of behaviour 	C1, C2	3
Basic mechanisms of wildlife behaviour	<ol style="list-style-type: none"> 1. Coordination 2. Life and wildlife movement 3. Stimuli-respond theory 4. Box phenomenon 5. Skinner Box 6. Wildlife senses 	C1, C2	4 & 5
Motivation and learning process	<ol style="list-style-type: none"> 1. Internal and external factors 2. Motivation models 3. learning 4. Latency 5. Habituation and imprinting 	C1, C2	6 & 7
Behaviour classification and pattern	<ol style="list-style-type: none"> 1. General and specific behaviour 2. Organization 3. Ethogram 	C1, C2, C3	8
Communication behaviour	<ol style="list-style-type: none"> 1. Communication types 2. Types of sensor and stimuli 3. Communication mechanism 	C1, C2	9
Social behaviour and reproduction	<ol style="list-style-type: none"> 1. Group theory 2. Social group limitations and categories 3. factors effecting social group stability 4. Reproduction strategy 	C1, C2, C3	10 & 11
Home range, territory, migration and spatial	<ol style="list-style-type: none"> 1. Definitions 2. Influencing factors 3. Methods to measure home range and 	C1, C2	12

Topics	Sub-topics	Bloom's Taxonomy	Week
orientation	territory		
Introduction to wildlife behaviour research methodologies	1. Sampling technique for behaviour 2. determination of measured variables 3. Observation and measurement methods	C2, C3, C4	13 & 14

Potential Course Overlap

Minimum overlapping will exist with other courses that contain topics on wildlife, such as Wildlife Ecology (KSH212) and Wildlife Management (KSH 417).

Evaluation and Grading

1. Quizzes

Quizzes in the form of 2-3 short essay questions will be given to provide the students feedbacks on their course performance. The quiz may be given before or just before end of lecture and will cover a topic discussed in the previous lecture. The quiz will be held approximately \pm 10 minutes.

2. Mid-term examination

Mid-term examination will be held during examination period scheduled by Registrar's office (after 7 weeks lecture). The exam will cover course topics delivered in week 1-7. Exam is composed of various types of questions (multiple choice, short answers and essays with major composition in essays).

3. Final examination

Final examination will be held during examination period scheduled by Registrar's office (after 14 weeks lecture). The exam will cover course topics delivered for 14 weeks, with majority will be taken from topics delivered during week 8 to 14. Exam is composed of various types of questions (multiple choice, short answers and essays with major composition in essays).

4. Course Practice

Grading of course practice will cover grades from individual and group assignments from quizzes (individual), activities (individual), paper reviews (individual and group), report (group) and individual presentation. Proposal and report writings should follow scientific writings. Plagiarized paper will receive zero grade.

Compositions of grading are as follows:

Assessment Tools	Maximum Score	% of Grade
Mid-term examination	100	25
Final examination	100	40
Quiz/Assignment	100	5
Course practice	100	30

Final grade classification: A (≥ 80); B (70-79); C (60-69); D (50-59); E (< 50)

**Coverage of DFORCE Core Competence
in Wildlife Behaviour (KSH 212)**

Code : KSH 212
Course : Wildlife Behaviour
Credit : 3(2-3)

Code	Core Competencies	Course Content Covered	Cognitive Level	Topic
II	Students will be able to understand aim and objectives of studying wildlife behaviour science and scope of course, and relation of this course to other courses. Students will also be able to recognize lecture delivery/course practice and valuation system	Introduction	C1	Introduction
		Aim/objectives and benefits		
		Scope of course		
		Relation to other courses		
		Lecture delivery/course practice and valuation system		
II	Students will be able to understand the history and development of wildlife behaviour science	Darwin theory	C1	History and development of wildlife behaviour science
		Psychology, Naturalist (behaviourism), Instinct and learning		
III	Students will be able to understand the development of wildlife behaviour including pre-natal, post-natal, early experience and the effecting factors	Pre-natal behaviour	C1, C2	Development of wildlife behaviour
		Post-natal behaviour		
		Early experience		
		Factors effecting the development of behaviour		
IV	Students will be able to understand the principles and basics of wildlife behaviour	Coordination	C1, C2	Basic mechanisms of wildlife behaviour
		Life and wildlife movement		
		Stimuli-respond theory		
		Box phenomenon		
		Skinner Box		
	Wildlife Senses			
V	Students will be able to understand	Internal and external factors	C1, C2	Motivation and learning process

Code	Core Competencies	Course Content Covered	Cognitive Level	Topic
	and understand behaviour motivation and learning process on wildlife	Motivation models Learning Latency Habituation and imprinting		
VI	Students will be able to understand wildlife behaviour classification and important behaviour for species conservation	General and specific behaviour Organization Ethogram	C1, C2, C3	Behaviour classification and pattern
VII	Students will be able to understand communication behaviour on wildlife	Communication types Types of sensor and stimuli Communication mechanism	C1, C2	Communication behaviour
VIII	Students will be able to understand social and reproduction behaviours on wildlife	Group theory Social group limitations and categories Factors effecting social group stability Reproduction strategy	C1, C2, C3	Social behaviour and reproduction
IX	Students will be able to understand home range, territory, migration and spatial orientation	Definitions Influencing factor Methods to measure home range and territory	C1, C2	Home range, territory, migration and spatial orientation
X	Students will be able to conduct methods and data analysis for wildlife behaviour research	Sampling technique for behaviour Determination of measured variables Observation and measurement methods	C2, C2, C4	Introduction to wildlife behaviour research methodologies

**Assessment Tools to Measure the Achievement of
Learning Outcomes in Wildlife Behaviour (KSH 212)**

Code : KSH 212

Course : Wildlife Behaviour

Credit : 3(2-3)

Code	Core Competencies	Learning Outcome	Bloom's Taxonomy	Assessment Tool(s)	Learning Activities
I	Students will be able to understand aim and objectives of studying wildlife behaviour science and scope of course, and relation of this course to other courses. Students will also be able to recognize lecture delivery/course practice and valuation system	Students will be able to explain aim and objectives of studying wildlife behaviour science and scope of course, and relation of this course to other courses. Students will also be able to recognize lecture delivery/course practice and valuation system	C1	Written examinations at different cognitive level (mid-term exam).	Classroom lecture and discussion
II	Students will be able to understand the history and development of wildlife behaviour science	Students will be able to explain the history and development of wildlife behaviour science	C1	Written examinations at different cognitive level (mid-term exam).	Classroom lecture and discussion
III	Students will be able to understand the development of wildlife behaviour including pre-natal, post-natal, early experience and the effecting factors	Students will be able to explain the development of wildlife behaviour including pre-natal, post-natal, early experience and the effecting factors	C1, C2	Written examinations at different cognitive level (mid-term exam).	Classroom lecture and discussion
IV	Students will be able to understand the principles	Students will be able to explain the principles	C1, C2	Written examinations at different cognitive level (mid-	Classroom lecture and discussion

Code	Core Competencies	Learning Outcome	Bloom's Taxonomy	Assessment Tool(s)	Learning Activities
	and basics of wildlife behaviour	and basics of wildlife behaviour		term exam).	
V	Students will be able to understand and understand behaviour motivation and learning process on wildlife	Students will be able to explain behaviour motivation and learning process on wildlife	C1, C2	Written examinations at different cognitive level (mid-term exam).	Classroom lecture and discussion
VI	Students will be able to understand wildlife behaviour classification and important behaviour for species conservation	Students will be able to explain wildlife behaviour classification and important behaviour for species conservation	C1, C2, C3	Written examinations at different cognitive level (final exam).	Classroom lecture and discussion
VII	Students will be able to understand communication behaviour on wildlife	Students will be able to explain communication behaviour on wildlife	C1, C2	Written examinations at different cognitive level (final exam).	Classroom lecture and discussion
VIII	Students will be able to understand social and reproduction behaviours on wildlife	Students will be able to explain social and reproduction behaviours on wildlife	C1, C2, C3	Written examinations at different cognitive level (final exam).	Classroom lecture and discussion
IX	Students will be able to understand home range, territory, migration and spatial orientation	Students will be able to explain home range, territory, migration and spatial orientation	C1, C2	Written examinations at different cognitive level (final exam).	Classroom lecture and discussion
X	Students will be able to conduct methods and data analysis for wildlife behaviour research	Students will be able to conduct methods and data analysis for wildlife behaviour research	C2, C3, C4	Written examinations at different cognitive level (final exam).	Classroom lecture and discussion