

SEMESTER II

LSM3267 BEHAVIOURAL BIOLOGY

Prerequisite: LSM2251 Ecology and Environment

Preclusion: Students who have passed LSM4253 Behavioural Biology should not read the revised LSM3267.

Workload: 26 lecture hours + 24 tutorials, discussions, group Project and/or term paper

Course description:

This module provides an in-depth coverage of the relationships that organisms have with each other and with the environment. Key concepts in organismal interactions, illustrated with examples from general diverse animals and ecological systems, to ultimate and proximate explanations of animal interactions and other life history characteristics, will be covered. Students will be given the opportunity to assimilate and critically evaluate contemporary literature on relevant current issues. Experimental studies will be designed, proposed and carried out by students to improve the understanding of animal behaviour and to appreciate the significance of behaviour in ecology as well as other related disciplines.

S/N	Topics	Lecture hours
1.	The study of behaviour: questions about behaviour; ways of thinking about behaviour; formulating and testing hypotheses; understanding proximate and ultimate causes of behaviour	26hr
2.	Animal senses & communication: signal production & reception	
3.	Principles of animal behaviour: evolutionary thinking; behaviour and adaptation	
4.	Predator-prey interactions: predation and predator avoidance	
5.	The evolution of foraging behaviour: optimality theory; optimal foraging theory; habitat selection	
6.	The evolution of communication: signal design; sensory biases; sensory exploitation	
7.	Sexual selection: the evolution of sex; intra-sexual selection; inter-sexual selection; sexual conflicts; mating strategies, and sperm competition	
8.	Mating systems and parental care	
9.	Social behaviour: costs and benefits of social life; evolution of helping behaviour; the concept of inclusive fitness; the organisation of animal societies	
10.	Human behaviour: adaptive mating preferences and parental care	
11.	Animal personality: Between individual differences in behaviour	
Total Lectures: 26h		
Tutorials, Discussions, Group Project and/or Term paper: 24h		
Total hours:		50h

TEXT BOOK (Reference book):

Alcock, J. 2013. Animal behavior: an evolutionary approach, 10th edition. Sinauer Associate, Inc

MODE OF ASSESSMENT: 60% CA, 40% final exam (open book)

MODULE CO-ORDINATOR:

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