Module Brief- Additional Information for Students

Note:

Please note that the information in this brief is tentative as faculty could still be in the process of developing or refining their module details.

Module Code and Title	**YSC3235, Animal Behaviour**
Module Description *The 100 word course description from Course Catalogue will be made available to students. Please provide **additional** information if you wish.*	This Animal Behaviour module is aimed at students who have had some prior coursework in evolutionary biology, neurobiology and behaviour, or psychology. We will examine a combination of natural and experimental studies of animal behaviour in an effort to understand why animals do what they do. Questions of why are often rooted in evolutionary explanations, and much of our exploration of animal behaviours will revolve around natural selection. However, we will also delve into questions of how animal behaviours occurs, i.e., more mechanistic explanations, and some of those will delve into the realm of cognition. This course is aimed at Life Sciences students, but it might be interesting as well for Psychology students who want to learn more about underlying principles that influence behaviours; however, please note that we will not specifically discuss human behaviour. Among the questions we will address are: • How do animals avoid predators and hunt for prey? • How do animals compete for limited resources? • What are the consequences of living in groups? When should animals cooperate? • How do animals compete for mates, and what are the consequences of that competition? • What are the costs and benefits of animals caring for their offspring? • What is the influence of genes on behaviour, and what are the consequences? • How do we address questions of the evolution of behaviour, given evolutionary histories? • How do we model behaviours, given their costs and benefits? We will address these topics with a combination of reading, discussion, and observation of animals. We will use a textbook to help structure our explorations. However, a major objective of this course is to discuss and dissect seminal works and current primary research articles, and to build on what we learn from that.
Learning Objectives	Students will learn about animal behaviour and the ways scientists study it. You will critically assess original research articles and put them into context. You will gain insights into the methodology in the field through experiential learning. You will learn to ask meaningful research questions, and how to answer them.
Modes of Learning & Teaching	Students will learn through a combination of textbook-based lectures, critical reading of primary research articles, and seminar discussions. You will synthesize information from primary sources and communicate your findings to a scientifically literate audience. You will participate in

Please provide details of the learning activities learners will participate in etc.	field excursions to practice behavioural observations, and you will combine your newly-acquired knowledge when designing a research project.
Assessment Criteria *Please provide details of the assessment methods or what proportion of the overall grade is composed by each component of assessment*	*Course Assessment Breakdown* The exact breakdown is subject to change, as the number of assignments and student presentations might vary depending on the number of students enrolled in the course. The following is a rough breakdown of the course assessment: Mid-term exam: 30 % Final exam: 30% Student presentations: 10% Small assignments: 15% Research project proposal: 15% *Description of Assignments* The exams will test the understanding of concepts in Animal Behaviour. Student presentations will challenge course participants to a critical analysis of primary research literature, and will see them communicate research findings to a scientifically literate audience. Students will apply their new knowledge about animal behaviour and research methodology when designing a research project. The small assignments will guide the students along the way to their final research project proposal.
Required Reading List	Davies NB, Krebs JR, West SA. 2012. An introduction to behavioural ecology. Wiley-Blackwell, 4th ed. ISBN: 978-1-405-11416-5
Reading List (additional/supplementary)	
Any other Information	*Pre-Requisites for the Course* YCC1131 Scientific Inquiry, YCC1122 Quantitative Reasoning and YSC2231 Foundations of Neuroscience (previously YSC2211 Neurobiology & Behaviour), YSC2216 Evolutionary Biology or YSS2201 Understanding Behaviour and Cognition; or permission of the instructor. *Field trips* I plan for two field trips in Singapore to practise behavioural observations of animals in the "real world". These field trips will be scheduled after the start of the course, depending on the course participants' availability. This means that they might occur on weekends, if no suitable time slot can be found during weekdays. Field trips might need to be postponed due to inclement weather or health advisories and regulations. The time spend on field trips will be credited towards the total time spent on the course.