UNIVERSITI TEKNOLOGI MARA

BIO661: ANIMAL BEHAVIOUR

Course Name (English)	ANIMAL BEHAVIOUR APPROVED
Course Code	BIO661
MQF Credit	3
Course Description	This course introduces the fundamentals of Animal Behaviour in relation to its history, behavioural genetics, mechanisms of evolution, behaviour related to food and shelter, social behaviour and mating systems
Transferable Skills	1. Thinking and scientific skills 2. Social skills, teamwork and responsibilities 3. Values, ethics, morals and professionalism
Teaching Methodologies	Lectures, Lab Work, Field Trip
CLO	CLO1 Explain animal behaviour with respect to genetics, evolution, physiological mechanisms, social organisation, mating systems, food and shelter, basic behavioural mathematical models and welfare CLO2 Demonstrate critical understanding and social responsibility towards animals with regards to their behaviour and welfare CLO3 Interpret mainstream scientific literature and field studies related to animal behaviour in the form of assignment
Pre-Requisite Courses	No course recommendations

Topics
1. 1.0 Introduction and History of Animal Behaviour 1.1) 1.1 Why study animal behaviour? 1.2) 1.2 Proximate and Ultimate causation 1.3) 1.3 Studies of Mechanisms of Behaviour 1.4) 1.4 Approaches and Methods in Animal Behaviour
2. 2.0 Genetics and Physiological Mechanisms of Behaviour 2.1) 2.1 Genetics and Behaviour 2.2) 2.2 Development and Changes to the Nervous System 2.3) 2.3 Hormones and Behaviour
3. 3.0 Development of Behaviour 3.1) 3.1. Nature-Nurture Niche 3.2) 3.2 Embryology of Behaviour 3.3) 3.3 Early Postnatal Events 3.4) 3.4 Play Behaviour
4. 4.0 Learning 4.1) 4.1 Forms of Learning 4.2) 4.2 Learning as Adaptive Behaviour 4.3) 4.3 Animal Cognition
5. 5.0 Communication 5.1) 5.1 Signals and Hoe they Convey Information 5.2) 5.2 Functions of Communication 5.3) 5.3 Channels of Communication 5.4) 5.4 Evolution of Displays and Complex Communications 5.5) 5.5 Play Behaviour
6. 6.0 Migration, Orientation and Navigation 6.1) 6.1 Migration 6.2) 6.2 Orientation 6.3) 6.3 Navigation

7. 7.0 Habitat Selection 7.1) 7.1 Dispersal from Place of Birth 7.2) 7.2 Habitat Choice and Reproductive Success 7.3) 7.3 Environmental Cues 7.4) 7.4 Determinants of Habitat Preference
8. 8.0 Foraging Behaviour 8.1) 8.1 Optimality Theory 8.2) 8.2 Foraging Models 8.3) 8.3 Techniques for Acquiring Food 8.4) 8.4 Foraging and Social Behaviour 8.5) 8.5 Defence Against Predators
9. 9.0 Conflict 9.1) 9.1 Aggression, Agonistic Behaviour and Competition 9.2) 9.2 Territory 9.3) 9.3 Dominance 9.4) 9.4 Internal and External Factors in Aggression 9.5) 9.5 Appeasement
10. 10.0 Sexual Reproduction and Parental Care 10.1) 10.1 Costs and Benefits of Sex 10.2) 10.2 Anisogamy and Bateman Gradient 10.3) 10.3 Sexual Selection
11. 11.0 Mating System and Parental Care 11.1) 11.1 Mating Systems 11.2) 11.2 Parental Care
12. 12.0 Social Behaviour 12.1) 12.1 Living in Groups 12.2) 12.2 The Evolution of Cooperation and Altruism 12.3) 12.3 Examples of Social Systems
13. 13.0 Animal Behaviour and Animal Welfare 13.1) 13.1 Understanding Animal Welfare 13.2) 13.2 Animal Welfare and Ethics 13.3) 13.3 Indicators and Assessment of Animal Welfare

Assessment Breakdown	%
Continuous Assessment	50.00%
Final Assessment	50.00%

Details of Continuous Assessment

Assessment Type	Assessment Description	% of Total Mark	CLO
Assignment	Video assignment	25%	CLO3
Test	1 test	15%	CLO1
Written Report	1 Written lab report (PBL)	10%	CLO2

Reading List

Recommended Text

- **Aubrey Manning,Marian Stamp Dawkins 2012, *An Introduction to Animal Behaviour*, Cambridge University Press [ISBN: 9780521165143]**

Reference Book Resources

- **Lee Drickamer,Stephen Vessey,Elizabeth Jakob 2001, *Animal Behavior: Mechanisms, Ecology, Evolution*, 5 Ed., McGraw-Hill Science, Engineering & Mathematics [ISBN: 0-07-012199-0]**
- **Lee Alan Dugatkin 2004, *Principles of Animal Behavior*, W W Norton & Company Incorporated [ISBN: 0393976599]**
- **Michael C Appleby,Anna S Olsson,Francisco Galindo 2018, *Animal Welfare, 3rd Edition*, 3rd Edition Ed., CABI [ISBN: 9781786390202]**
- **John Alcock 2013, *Animal Behavior*, 10th Edition Ed., Sinauer Associates Incorporated [ISBN: 9780878939664]**
- **Breed, M.d & Moore, J. 2015, *Animal Behaviour*, 2nd Edition Ed., Academic Press [ISBN: 9780128015322]**

Article/Paper List: This Course does not have any article/paper resources

Other References: This Course does not have any other resources