

Module Descriptor Form

1	Awarding Body	Askham Bryan College
2	Lead Subject Area	Cross College
3	Module title	Fundamentals of Biological Sciences
4	Module Code	XC0104
5	Module level	Y0
6	Module credits	20
7	Date Module to Commence	September 2022
8	Programmes on which module is available	Extended FdSc Animal Science and Management (core) Extended FdSc Management of Animal Collections with Conservation (core) Extended FdSc Management of Aquatics and Conservation of Oceans (core) Extended FdSc Wildlife and Environmental Conservation (core) Extended FdSc Applied Sustainable Land Management (core) Extended FdSc Canine and Feline Behaviour and Training (core) Extended FdSc Precision Livestock Farming (core) Extended FdSc Agriculture (core) Extended FdSc Equine Science and Management (core)
9	Aims of the Module	The aims of this module are to introduce students to a variety of biological terminology, systems, theories, structures and processes that can then be built on in further levels of the course.
10	Rationale for Module	Students studying this course may not have a scientific background as entry requirements do not state that GCSE Science is required and may not have a level 3 scientific qualification. Therefore, this module, along with Introduction to Laboratory Skills, will give students a good introduction to biological terminology, systems, theories, structures and processes that can then be built on in further levels of the course.
11	Module description	This module will give students a basic grounding in biological science which will be needed in later science-based modules such as anatomy and physiology. In studying this module the students will gain an understanding of how cells, tissues and whole organisms function. The students will also study rules of classification of organisms, knowledge of which is essential for working with animals.
12	Semester	1
13	Learning Outcomes	LO1 Utilise animal classification systems and identify evolutionary processes

		LO2 Recognise cellular structures and processes
		LO3 Recognise tissue types and functions
		LO4 Identify a range of organs and organ systems
14	Pre-requisite Modules	None
15	Co-requisite Modules	None
16	Banned Combinations	None
17	Is Module Compensatable	Yes
18	Indicative Content	LO1: Taxonomy of organisms including classification systems; mechanisms at work in the evolution of populations. Types of cells e.g. plant, animal, bacterial, fungal, prokaryote, eukaryote. LO2: Basic structure of a cell including cell membrane, cell wall, nucleus, nucleolus, cytoplasm, mitochondria, ribosome, endoplasmic reticulum (smooth and rough), Golgi body, lysosomes. Cellular processes such as mitosis, meiosis, respiration, photosynthesis, DNA replication or protein synthesis. LO3: Tissues and their function and cell differentiation in terms of functions including epithelial, connective, nerve, muscular. LO4: An introduction to animal organ systems including cardiovascular, digestive, urinary, respiratory, nervous, lymphatic, endocrine and reproductive. Within the module links are made to the Education for Sustainable Development goals https://www.gaa.ac.uk/docs/gaa/guidance/education-for-sustainable-development-guidance-executive-summary.pdf?sfvrsn=b121d281_8

19	Inclusivity, access and student support	We are committed to ensuring that our programmes and modules are inclusive of all students including: international, part-time, mature, those from different socio-economic backgrounds (class) and those with protected characteristics according to the Equality Act 2010 (age, disability, gender reassignment, marriage/civil partnership, race, religion or belief, sex, sexual orientation). Powerpoint presentations will be provided online prior to the lectures and all will follow accessibility regulations. Students requiring assistance in practical sessions will be risk assessed and allowances such as a 'buddy system' considered where appropriate. Allergies and phobias will be considered in practical sessions and students allowed to complete worksheets using digital resources where appropriate. An alternative assessment will be available for all students with a DSA, in line with recommendations in their individual needs assessment.
20	Link to the Digital Vision	The VLE and Teams platforms will be utilised for dissemination of lecture resources. Where possible, planet e-stream and AR suite will be utilised.
21	Total Contact Hours	60
	Lecture	40
	Seminar	0
	Tutorial	0
	Project Supervision	0
	Demonstration	10
	Practical classes/workshops	10
	Fieldwork	0
	External visits	0
	Work based learning / Placements	0
	Guided independent study	140 hours
22	Learning and Teaching Strategy	Students will receive lectures to outline key themes, such as organ systems and cellular structures, which will be backed up by regular 1:1 tutorials. They will also take part in a range of dissections and practical lessons in order to apply their theoretical knowledge in a practical sense.
23	Virtual Learning Strategy	All module resources will be available on the VLE, as will links to further reading, videos etc. Students will be encouraged to actively participate in online discussion forums. Formative assessment will take place regularly using online tasks on the VLE.

		Worksheets, relevant literature, powerpoints and other media will be made available on the VLE for students to access outside of lectures. Practice tests will be posted online.				
24	Opportunities for Formative Assessment	Consistent question and answer sessions will take place in every session for the students to practice and further knowledge Practice tests will be used online along with class discussion and quizzes. Students will peer assess each other in practical dissections to identify samples.				
25	Method of Summative Assessment	Ass No.	Method	Weighting	LOs	Prog LOs
		1	In class online open book (notes limited to 1 side of A4)	100%	1,2,3,4	KU1, KU2, CIT1 PP1; PP2; PP4; E1, E7
26	Examination Period	No exam				
27	Method/s of reassessment	Workbook in reassessment window				
28	Maximum Class Size	24				
29.1	Essential Reading (Books)	Simon, E.J., Dickey, J.L., Reece, J.B. and Hogan, K.A. 2016. <i>Campbell Essential Biology</i>. 6th ed. Essex: Pearson Freeman, S., Quillin, K. and Alison, L. 2014. <i>Biological Science</i>. 5th ed. Harlow, Pearson Education Ltd.				
29.2	Recommended Reading (Books)	Ridley, M. 2004. <i>Evolution</i>. 3rd ed. Oxford:Blackwell Science. Hickman, C.P., Keen, S.L., Larson, A., Eisenhour, D.J. 2018. <i>Animal Diversity</i>. 8th edition. New York. McGraw Hill Higher Education				
29.3	Essential Reading (Journals)	Biological Sciences Review				
29.4	Recommended Reading (Journals)	Journal of Veterinary anatomy				
29.5	Websites/ Online/ Government Resources etc	Online Biology Book http://www2.estrellamountain.edu/faculty/farabee/biobk/biobooktoc.html				
30	Date Written/ Revised	30/01/2022				
31	Module Leader Name	Laura Overton				
32	Writing Team Names	Laura Overton and Isobel Bannister				