Subject Description Form

Subject Code	ABCT1102
Subject Title	General Biology
Credit Value	3
Level	1
Pre-requisite / Co-requisite/ Exclusion	Pre-requisite: ABCT 1101, or completed HKDSE level biology as a full subject or as a component in a Combined Science subject.
Objectives	In this subject, students will learn the basic knowledge and concepts in various areas of biology at the university entry level. It underpins all the other subjects in biological or health fields.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: (a) have a basic understanding of the structure and functions of the cell (b) have a basic understanding of genetics and inheritance (c) have a basic understanding of the structure and function of animals (d) have a basic understanding of the structure and function of plants (e) appreciate the importance of evolution and biological diversity
Subject Synopsis/ Indicative Syllabus	Contact Hours THE CELL: Molecules and structure of the cell — 2 Hr Activities inside the cell — 2 Hr Harvesting chemical energy in the cell — 2 Hrs Photosynthesis: Harvesting light energy and producing food — 2 Hrs CELLULAR REPRODUCTION AND GENETICS Reproduction and inheritance at the cellular level — 2 Hrs Patterns of inheritance — 2 Hrs Molecular biology of the gene — 2 Hrs Gene control — 2 Hrs DNA technology and genomics — 2 Hrs EVOLUTION AND BIOLOGICAL DIVERSITY The origin and evolution of microbial life: Prokaryotes and protests — 1 Hr Plants, fungi, and the colonization of Land — 1 Hr Invertebrate diversity — 1 Hr Vertebrate diversity — 1 Hr

	ANIMALS: FORM AND FUNCTION Unifying concepts of animal structure and function 1 Hr Nutrition and digestion 2 Hr Gas exchange and circulation 2 Hr Control of body temperature and water balance 2 Hrs Hormones and the endocrine system 2 Hr Reproduction 2 Hr Control systems in plants 1 Hr ECOLOGY The biosphere 1 Hr Behavioral adaptations to the environment 1 Hr Population ecology 1 Hr Communities and ecosystems 1 Hr Conservation biology 1 Hr
Teaching/Learning Methodology	Lectures Tutorials with exercises and discussions Self Study
Assessment Methods in Alignment with Intended Learning Outcomes	See table below

Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)					
		a	b	c	d	e	
1.Written assessment I	20%	✓	✓			✓	
2.Written assessment II	20%	✓	✓	✓	✓	✓	
3.Written assignment	10%	✓	✓	✓	✓	✓	
4. End of subject exam	50%	✓	✓	✓	✓	✓	
Total	100 %						

Student Study Effort Expected	Class contact:	
	▪ Lectures	26Hrs.
	▪ Tutorials	13Hrs.
	Other student study effort:	
	▪ Self Study	72Hrs.

	▪	Hrs.
	Total student study effort	111Hrs.
Reading List and References	**Text book:** Campbell Biology: Concepts and Connections, 7/E Jane B. Reece, Martha R. Taylor, Eric J. Simon, Jean L. Dickey Pearson 2012 **Reference:** Essentials of Biology, 3/E Sylvia S. Mader McGraw-Hill 2012	