PRESCRIBED FOCUS AREAS

Mapping the Prescribed focus areas (PFAs)—Preliminary Course

PFA (general)	Preliminary Course PFA—*a student*	Syllabus identification of this PFA		
		Module	Syllabus statement number	Syllabus dot point
1 the history of biology	P1 outlines the historical development of major principles, concepts and ideas in biology	8.3 Patterns in Nature	1	*outline the historical development of the **cell theory**, in particular, the contributions of Robert Hooke and Robert Brown*
		8.4 Life on Earth	1	*discuss the significance of the **Urey and Miller experiments** in the debate on the composition of the primitive atmosphere*
		8.5 Evolution of Australian Biota	1	*identify and describe evidence that supports the assertion that Australia was once part of a landmass called **Gondwana** . . .*
		8.5 Evolution of Australian Biota	2	*present information from secondary sources to discuss the **Huxley–Wilberforce** debate on Darwin's theory of evolution*
2 the nature and practice of biology	P2 applies the processes that are used to test and validate models, theories and laws of science with particular emphasis on first-hand investigations in biology	8.2 A Local Ecosystem	1	*process and analyse information obtained from a variety of sampling studies to justify the use of **different sampling techniques** to make population estimates when total counts cannot be performed*
		8.2 A Local Ecosystem	2	*choose equipment or resources and undertake a **field study** of a local terrestrial or aquatic ecosystem to identify data sources . . .*
		8.4 Life on Earth	1	*gather information from secondary sources to describe the experiments of Urey and Miller and use the available evidence to analyse the: —importance of their experiments in illustrating the **nature and practice of science***
		8.4 Life on Earth	2	*identify data sources, gather, process, analyse and present information from secondary sources to evaluate the impact of increased understanding of the **fossil record** on the development of ideas about the **history of life on Earth***
		8.5 Evolution of Australian Biota	2	*discuss current theories that provide a **model** to account for these changes [in the **distribution of Australian species**]*

continued . . .

PFA (general)	Preliminary Course PFA— *a student*	Syllabus identification of this PFA		
		Module	Syllabus statement number	Syllabus dot point
3 applications and uses of biology	P3 assesses the impact of particular technological advances on understanding in biology	8.3 Patterns in Nature	1	*discuss the significance of technological advances to developments in the **cell theory*** and *use available evidence to assess the impact of technology, including the development of the **microscope** on the development of the cell theory*
		8.4 Life on Earth	1	*identify changes in technology that have assisted in the development of an increased understanding of the **origin of life** and **evolution** of living things*
		8.4 Life on Earth	4	*discuss, using examples, the impact of changes in technology on the development and revision of **biological classification systems***
4 implications of biology for society and the environment	P4 describes applications of biology which affect society or the environment	8.2 A Local Ecosystem	2	*identify the **impact of humans** in the ecosystem studied*
		8.5 Evolution of Australian Biota	4	*identify the ways in which **palaeontology** assists understanding of the factors that may determine **distribution of flora and fauna** in present and future environments*
		8.5 Evolution of Australian Biota	4	*process information to discuss a **current effort** to **monitor biodiversity***
5 current issues, research and developments in biology	P5 describes the scientific principles employed in particular areas of research in biology	8.4 Life on Earth	4	*explain how classification of organisms can assist in developing an understanding of **present and past life on Earth***
		8.5 Evolution of Australian Biota	1	*discuss **current research** into the **evolutionary relationships** between extinct species, including megafauna and extant Australian species*