

Biology Study Guide



Qualification Code and Name	NA
Stream / Specialisation	NA
Unit Code and Name	UNL44 Unilearn Biology
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What will I learn?

The main aim of this course is to assist you in obtaining the skills and knowledge to confidently approach tertiary studies in any of the biology disciplines. On successful completion of this course you will be able to demonstrate an understanding of the following key concepts across a range of organisms:

- Taxonomy
- Cell theory
- Tissues, organs and organ systems
- Role of nucleic acids (DNA/RNA)
- Genetics and inheritance
- Homeostasis
- Evolution
- Ecology

No licensing, legislative or certification requirements apply to this subject at the time of publication.

Are there any special requirements?

Reliable, regular access to an online environment – internet access, a computer/laptop or mobile device and have enough knowledge to navigate content.

Part of the online environment is access to the TAFE Queensland virtual learning environment (Connect) and learning management system (Connect LMS). Please take the time to orientate yourself to these systems.

What do I need to do to be successful?

It is recommended this subject requires a minimum of 220 hours minimum to complete.

You are required to satisfactorily complete all assessments for this subject. Progress tests and labs require a minimum of 60% to pass before you can sit the exams. An overall pass for the subject is 50% when all assessment pieces are counted. You are responsible for complying with TAFE Queensland's assessment rules and complete assessment tasks honestly.

You need to follow all assessment instructions, including submission details and retain a copy of all assessment items.

The course work, activities and planning documents are designed to help students prepare for the final exam for biology.

Course Components

UNIT 1 – Introduction of Biology

Chapter 1 - The nature of biology

UNIT 2 – The Diversity of Life

Chapter 2 – Classifying organisms

Chapter 3 – Overview of living organisms

Chapter 4 – Phylogenetic relationships

Chapter 5 – The effect of organisms on humans

UNIT 3 – Ecology

Chapter 6 – Organisms and their environment

Chapter 7 – Populations

Chapter 8 – Ecosystem dynamics

Chapter 9 – Communities and their habitats

Chapter 10 – Human impact on the environment

UNIT 4 – Animal Behaviour

Chapter 11 – Animal behaviour

UNIT 5 – Cell Biology

Chapter 12 – Chemicals of life

Chapter 13 – Cell structure

Chapter 14 – Cell functions

UNIT 6 – The Functioning Organism

Chapter 15 – Plant Physiology

Chapter 16 – Plant reproduction, growth and development

Chapter 17 – Animal physiology

Chapter 18 – The human body

Chapter 19 – Human reproduction, growth and development

UNIT 7 – Genetics

Chapter 20 – The inheritance of characteristics

Chapter 21 – Gene action

UNIT 8 – Evolution

Chapter 22 – Theories of evolution

Chapter 23 – The mechanisms of evolution

UNIT 9 – Biotechnology

Chapter 24 – Biotechnology

Course Schedule

Topic	Week	Study	Assessment Due End of Week	Estimated Hours per week
Unit 1	Week 1	Chapter 1 readings & online resources	Progress Test 1.1 (16 Questions)	7
Unit 2	Week 2	Chapter 2 and 3 readings & online resources	Progress Test 2.1 (31 Questions)	12
	Week 3	Chapters 4 and 5 readings & online resources	Lab Activity 1 (30 marks)	8
	Week 4	Continue Chapter 5 readings & online resources	Progress Test 2.2 (54 Questions)	10
Unit 3	Week 5	Chapter 6 and 7 readings & online resources	Lab Activity 2 (100 marks)	10
	Week 6	Continue Chapter 7 readings & online resources	Progress Test 3.1 (32 Questions)	8
	Week 7	Chapters 8 and 9 readings & online resources		10
	Week 8	Chapter 10 readings & online resources	Progress Test 3.2 (55 Questions)	8
Unit 4	Week 9	Chapter 11 readings & online resources	Progress Test 4.1 (25 Questions)	6
Unit 5	Week 10	Chapter 12 readings & online resources	Lab Activity 3 (40 marks)	8
	Week 11	Chapter 13 readings & online resources	Lab Activity 4 (35 marks)	8
	Week 12	Chapter 14 readings & online resources	Progress Test 5.1 (87 Questions)	12
Revision & Midterms	Week 13	Book Midterm Exam, Revise & Complete Midterm Practice Exam	Midterm Practice	8
	Week 14	Revision & Biology Midterm Exam (1 hour 40 min time limit)	Midterm Exam	6
Unit 6	Week 15	Chapter 15 readings & online resources	Lab Activity 5 (100 marks)	10
	Week 16	Chapter 16 readings & online resources	Progress Test 6.1 (43 Questions)	8
	Week 17	Chapters 17 and 18 readings & online resources	Lab Activity 6 (100 marks)	12
	Week 18	Chapter 19 readings & online resources	Progress Test 6.2 (87 Questions)	12
Unit 7	Week 19	Chapter 20 readings & online resources	Lab Activity 7 (50 marks)	9
	Week 20	Chapter 21 readings & online resources	Progress Test 7.1 (57 Questions)	9
Unit 8	Week 21	Chapter 22 and 23 readings & online resources	Progress Test 8.1 (41 Questions)	12
Unit 9	Week 22	Chapter 24 readings & online resources	Lab Activity 8 (32 marks)	7
	Week 23	Revise Chapter 24 readings & online resources	Progress Test 9.1 (26 Questions)	6
Revision & Finals	Week 24	Book Final Exam, Revise & Complete Final Practice Exam	Final Practice	8
	Week 25	Revision & Biology Final Exam (1 hour 40 min time limit)	Final Exam	6

ASSESSMENT SUMMARY

	Assessment	Weighting	Conditions
Progress Tests	1.1	29 marks	Open book, no time limit
	2.1	45 marks	Open book, no time limit
	2.2	86 marks	Open book, no time limit
	3.1	52 marks	Open book, no time limit
	3.2	100 marks	Open book, no time limit
	4.1	37 marks	Open book, no time limit
	5.1	118 marks	Open book, no time limit
	6.1	59 marks	Open book, no time limit
	6.2	119 marks	Open book, no time limit
	7.1	103 marks	Open book, no time limit
	8.1	73 marks	Open book, no time limit
	9.1	42 marks	Open book, no time limit
Total 15%			
Labs	1 – Gram Staining Bacteria	30 marks	Online lab and worksheet activity, open book, no time limit
	2 – Populations	100 marks	Online lab and worksheet activity, open book, no time limit
	3 – Microscope	40 marks	Online lab and worksheet activity, open book, no time limit
	4 – Mitosis	35 marks	Online lab and worksheet activity, open book, no time limit
	5 – Plant Dichotomous Key	100 marks	Worksheet activity, open book, no time limit
	6 – Frog Dissection	100 marks	Worksheet activity, open book, no time limit
	7 – Inheritance	50 marks	Worksheet activity, open book, no time limit
	8 – Transgenic Flies	32 marks	Online lab and worksheet activity, open book, no time limit
Total 15%			
Midterm Exam and Final Exam	Midterm Exam	85 marks	Supervised Exam, closed book, 1 hour 40 min time limit
	Final Exam	85 marks	Supervised Exam, closed book, 1 hour 40 min time limit.
	Total 70%		

GRADING SCHEME

Students are required to complete all required assessments with a score of 60% or above on each in order to be eligible to sit the final exam. A student's final grade is an accumulation of all required content and will be weighted as follows:

Pass (P)	50 - 64%
Credit (C)	65 - 74%
Distinction (D)	75 - 84%
High Distinction (HD)	85% +

VOLUME OF LEARNING

This includes ALL learning and assessment activities that are required to be undertaken by the student to successfully complete the required study. The allocation of student time is provided as a guide for students to successfully complete this subject.

All assessment must be completed. Refer also to Student Rules <http://tafeqld.edu.au/current-students/student-rules/> for additional information relating to plagiarism, academic appeals, code of conduct, misconduct appeals and appropriate use of computing and electronic resources.

STUDENT SUPPORT

This subject includes individual tutorial support with an experienced Biology teacher. Tutorial support is via email, phone, zoom, discussion forums and the online classroom through the Learning Management System (LMS) CONNECT.

Support is also provided through Studiosity which provides out of hours academic support online for TAFE Queensland students. This link is available through CONNECT.

Students can access the TAFE Queensland library network and also a wide array of academic databases. A wide array of digital resources are also available through CONNECT.

All content is available on the Student Learning Platform and can be accessed 24 hours a day.