

BL1101 Biology 1

(BL1101 online module handbook version 155)

Credits: 20

Semester: 1

Module Organiser

Dr Peter Coote

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01334 463406

Pre-requisite Modules:

The student must have Higher or A-Level (or equivalent) in Biology or Human Biology at grade B or better

Anti-requisite Modules:

Post-requisite Modules:

Additional Module

Information:

[Please check MMS regularly for additional module information](#)

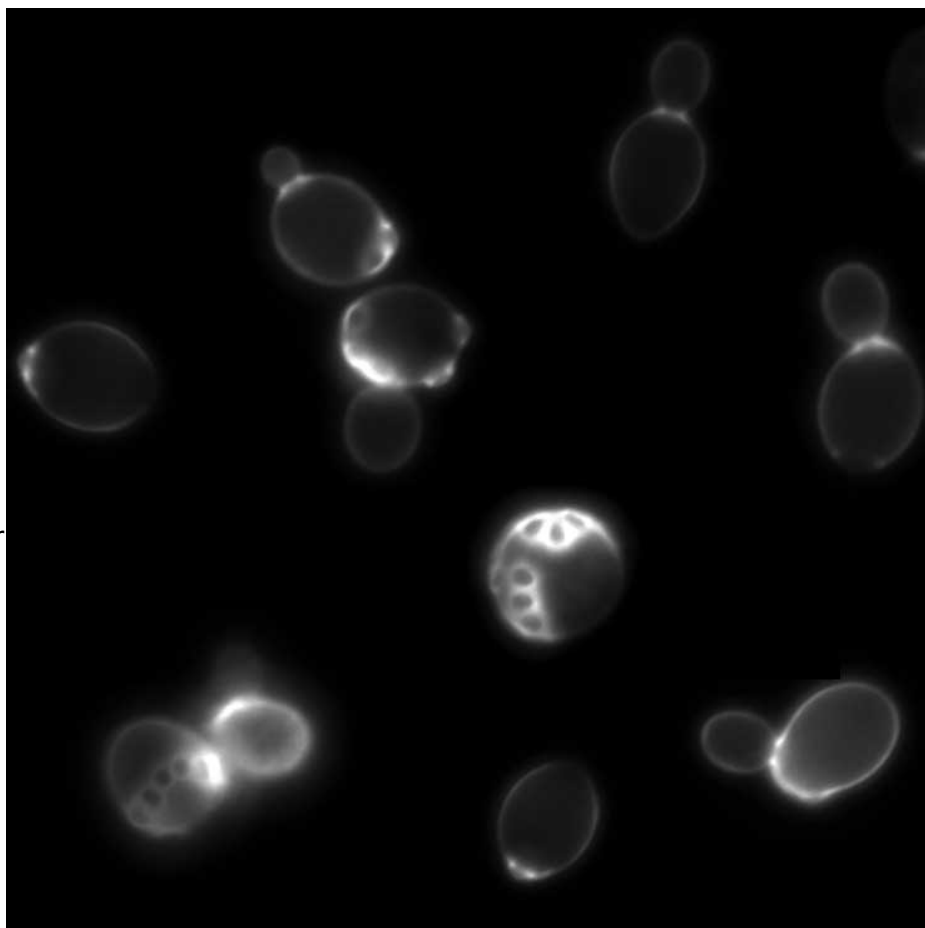


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This module is an introduction to molecular and cellular biology. It covers cell diversity and the origins of life, cellular structures and fundamental processes. The central dogma of molecular biology is investigated through the examination of the structure and function of DNA, RNA and proteins, and how this knowledge led to modern developments in biotechnology. The final section of the module gives an introduction into molecular and population genetics with an emphasis on the process of evolution. Throughout the module, the lecture material is complemented by practical classes where biological laboratory techniques are taught.

[BL1101View content for BL1101 \(2023/4\) in the Module Management System \(MMS\)](#)

[View the current Biology Online Module Catalogue for BL1101](#)

[BL1101View BL1101 \(2023/4\) in the University of St Andrews Module Catalogue](#)

Contents:

- Cover
- Contents
- Timetable
- Reading List
- Assessment
- Who To Ask
- Contributing Staff
- Learning Outcomes
- Acquired Skills
- Policies

BL1101: Timetable

Legend (not all modules have every event type):

lecture	tutorial	workshop	practical	other
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Semester 1: Week -1

DATE & TIME	VENUE	STAFF	EVENT
Friday 08-09-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Peter Coote -	Lecture L1: Introduction to BL1101 2023-4_BL1101_L1

Semester 1: Week 1

DATE & TIME	VENUE	STAFF	EVENT
Monday 11-09-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Peter Coote -	Lecture L2: 1. Atoms and Molecules 2023-4_BL1101_L2
Monday 11-09-2023 14:00 to 15:00	Medical and Biological Sciences Building Multi purpose lab	Dr Simon Young csr5;pjc5;s.gurney@st-andrews.ac.uk	Practical P1: Introduction and Treasure Hunt 1 2023-4_BL1101_P1
Tuesday 12-09-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Peter Coote -	Lecture L3: 2. The Chemistry of Water 2023-4_BL1101_L3
Tuesday 12-09-2023 14:00 to 15:00	Medical and Biological Sciences Building Multi-purpose lab	Dr Simon Young csr5;pjc5;s.gurney@st-andrews.ac.uk	Practical P2: Introduction and Treasure Hunt 2 2023-4_BL1101_P2
Wednesday 13-09-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Peter Coote -	Lecture L4: 3. Carbon: the basis of molecular diversity 2023-4_BL1101_L4
Wednesday 13-09-2023 14:00 to 15:00	Medical and Biological Sciences Building Multi-purpose lab	Dr Simon Young csr5;pjc5;s.gurney@st-andrews.ac.uk	Practical P3: Introduction and Treasure Hunt 3 2023-4_BL1101_P3
Thursday 14-09-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Peter Coote -	Lecture L5: 4. Biological Molecules 1: Carbohydrates and Lipids 2023-4_BL1101_L5
Friday 15-09-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Michela Cerone -	Lecture L6: 5. Skills Seminar: Writing Skills and Note Taking 2023-4_BL1101_L6

Semester 1: Week 2

DATE & TIME	VENUE	STAFF	EVENT
Monday 18-09-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Peter Coote -	Lecture L7: 6. Biological Molecules 2: Proteins and Nucleic Acids 2023-4_BL1101_L7
Monday 18-09-2023 14:00 to 16:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Jacqueline Nairn Mr Christopher Simmons-Riach	Practical P4: Calibration Curve 1 2023-4_BL1101_P4
Monday 18-09-2023 16:00 to 17:00	Medical and Biological Sciences Building Multi-purpose Lab	Dr Jacqueline Nairn -	Tutorial T1: Lab Report 2023-4_BL1101_T1
Tuesday 19-09-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Michela Cerone -	Lecture L8: 7. Cell Structure and Function 2023-4_BL1101_L8
Tuesday 19-09-2023 14:00 to 16:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Jacqueline Nairn Mr Christopher Simmons-Riach	Practical P5: Calibration Curve 2 2023-4_BL1101_P5
Tuesday 19-09-2023 16:00 to 17:00	Medical and Biological Sciences Building Multi-purpose lab	Dr Jacqueline Nairn -	Tutorial T2: Lab Report 2023-4_BL1101_T2
Wednesday 20-09-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Michela Cerone -	Lecture L9: 8. Cell Membranes 2023-4_BL1101_L9

Wednesday 20-09-2023 14:00 to 16:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Jacqueline Nairn Mr Christopher Simmons-Riach	Practical P6: Calibration Curve 3 2023-4_BL1101_P6
Wednesday 20-09-2023 16:00 to 17:00	Medical and Biological Sciences Building Multi-purpose lab	Dr Jacqueline Nairn -	Tutorial T3: Lab Report 2023-4_BL1101_T3
Thursday 21-09-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Michela Cerone -	Lecture L10: 9. Cellular Signalling 1: Signals and Receptors 2023-4_BL1101_L10
Friday 22-09-2023 10:00 to 11:00	Physics Building Physics LT A	Prof Graeme Ruxton -	Lecture L11: 10. Skills Seminar: Good Academic Practice 2023-4_BL1101_L11

Semester 1: Week 3

DATE & TIME	VENUE	STAFF	EVENT
Monday 25-09-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Michela Cerone -	Lecture L12: 11. Cellular Signalling 2: Transduction and Response 2023-4_BL1101_L12
Monday 25-09-2023 14:00 to 16:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Simon Young Mr Christopher Simmons-Riach	Practical P7: TLC 1 2023-4_BL1101_P7
Monday 25-09-2023 16:00 to 17:00	Medical and Biological Sciences Building Multipurpose Laboratory	Dr Simon Young Dr Jacqueline Nairn	Tutorial T4: Lab report writing 2 2023-4_BL1101_T4
Tuesday 26-09-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Michela Cerone -	Lecture L13: 12. Introduction to Metabolism 2023-4_BL1101_L13
Tuesday 26-09-2023 14:00 to 16:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Simon Young Mr Christopher Simmons-Riach	Practical P8: TLC 2 2023-4_BL1101_P8
Tuesday 26-09-2023 16:00 to 17:00	Medical and Biological Sciences Building Multipurpose laboratory	Dr Simon Young Dr Jacqueline Nairn	Tutorial T5: Lab Report Writing 2 2023-4_BL1101_T5
Wednesday 27-09-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Michela Cerone -	Lecture L14: 13. Enzymes 2023-4_BL1101_L14
Wednesday 27-09-2023 14:00 to 16:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Simon Young Mr Christopher Simmons-Riach	Practical P9: TLC 3 2023-4_BL1101_P9
Wednesday 27-09-2023 16:00 to 17:00	Biomedical Sciences Building Multipurpose laboratory	Dr Simon Young Dr Jacqueline Nairn	Tutorial T6: Lab Report Writing 2 2023-4_BL1101_T6
Thursday 28-09-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Jacqueline Nairn -	Lecture L15: 14. Respiration 1: Catabolism 2023-4_BL1101_L15
Friday 29-09-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Uli Schwarz-Linek -	Lecture L16: 15. Skills Seminar: Quantitative Skills 2023-4_BL1101_L16

Semester 1: Week 4

DATE & TIME	VENUE	STAFF	EVENT
Monday 02-10-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Jacqueline Nairn -	Lecture L17: 16. Respiration 2: Glycolysis and the Citric Acid Cycle 2023-4_BL1101_L17
Monday 02-10-2023 14:00 to 17:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Michela Cerone Mr Christopher Simmons-Riach	Practical P10: Restriction digests and gels 1 2023-4_BL1101_P10
Tuesday 03-10-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Jacqueline Nairn -	Lecture L18: 17. Photosynthetic Process 2023-4_BL1101_L18

Tuesday 03-10-2023 14:00 to 17:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Michela Cerone Mr Christopher Simmons-Riach	Practical P11: Restriction digests and gels 2 2023-4_BL1101_P11
Wednesday 04-10-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Jacqueline Nairn -	Lecture L19: 18. Respiration/Photosynthesis key concepts & applications 2023-4_BL1101_L19
Wednesday 04-10-2023 14:00 to 17:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Michela Cerone Mr Christopher Simmons-Riach	Practical P12: Restriction digests and gels 3 2023-4_BL1101_P12
Thursday 05-10-2023 10:00 to 11:00	Physics Building Physics LT A	Prof Kevin Lala -	Lecture L20: 19. Seminar: Decolonising the curriculum 2023-4_BL1101_L20
Friday 06-10-2023 17:00 to 17:00	Online MMS	Dr Peter Coote -	Other O1: Continuous assessment - LAB REPORT DUE 2023-4_BL1101_O1

Semester 1: Week 5

DATE & TIME	VENUE	STAFF	EVENT
Monday 09-10-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Marcus Bischoff -	Lecture L21: 20. Mitosis 2023-4_BL1101_L21
Monday 09-10-2023 14:00 to 17:00	Medical and Biological Sciences Building Multi-purpose lab	Dr Helder Ferreira Mr Christopher Simmons-Riach	Practical P13: PCR/LAMP 1 2023-4_BL1101_P13
Tuesday 10-10-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Marcus Bischoff -	Lecture L22: 21. Sexual life cycles and Meiosis 2023-4_BL1101_L22
Tuesday 10-10-2023 14:00 to 17:00	Medical and Biological Sciences Building Multi-purpose lab	Dr Helder Ferreira Mr Christopher Simmons-Riach	Practical P14: PCR/LAMP 2 2023-4_BL1101_P14
Wednesday 11-10-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Marcus Bischoff -	Lecture L23: 22. Mendelian genetics 2023-4_BL1101_L23
Wednesday 11-10-2023 14:00 to 17:00	Medical and Biological Sciences Building Multi-purpose lab	Dr Helder Ferreira Mr Christopher Simmons-Riach	Practical P15: PCR/LAMP 3 2023-4_BL1101_P15
Thursday 12-10-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Marcus Bischoff -	Lecture L24: 23. Linkage 2023-4_BL1101_L24
Friday 13-10-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Marcus Bischoff -	Lecture L25: 24. Genetic skills 2023-4_BL1101_L25

Semester 1: Week 7

DATE & TIME	VENUE	STAFF	EVENT
Monday 23-10-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Judith Sleeman -	Lecture L26: 25. DNA 2023-4_BL1101_L26
Monday 23-10-2023 14:00 to 16:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Jo Hobbs Mr Christopher Simmons-Riach	Practical P16: Red and White yeast A 1 2023-4_BL1101_P16
Monday 23-10-2023 16:00 to 17:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Uli Schwarz-Linek -	Tutorial T7: Quantitative Skills 1 2023-4_BL1101_T7
Tuesday 24-10-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Judith Sleeman -	Lecture L27: 26. Chromosomes 2023-4_BL1101_L27
Tuesday 24-10-2023 14:00 to 16:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Jo Hobbs Mr Christopher Simmons-Riach	Practical P17: Red and White yeast A 2 2023-4_BL1101_P17

Tuesday 24-10-2023 16:00 to 17:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Uli Schwarz-Linek -	Tutorial T8: Quantitative Skills 2 2023-4_BL1101_T8
Wednesday 25-10-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Judith Sleeman -	Lecture L28: 27. Gene Expression 1: Transcription 2023-4_BL1101_L28
Wednesday 25-10-2023 14:00 to 16:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Jo Hobbs Mr Christopher Simmons-Riach	Practical P18: Red and White yeast A 3 2023-4_BL1101_P18
Wednesday 25-10-2023 16:00 to 17:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Uli Schwarz-Linek -	Tutorial T9: Quantitative Skills 3 2023-4_BL1101_T9
Thursday 26-10-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Judith Sleeman -	Lecture L29: 28. Gene Expression 2: Translation 2023-4_BL1101_L29
Friday 27-10-2023 17:00 to 17:00	Online MMS	Dr Peter Coote s.gurney@st-andrews.ac.uk	Other O2: Continous assessment - CLASS ESSAY DUE 2023-4_BL1101_O2

Semester 1: Week 8

DATE & TIME	VENUE	STAFF	EVENT
Monday 30-10-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Michael M Nevels -	Lecture L30: 29. Control of Gene Expression 1: Bacteria 2023-4_BL1101_L30
Monday 30-10-2023 14:00 to 17:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Jo Hobbs Mr Christopher Simmons-Riach	Practical P19: Red and White yeast B 1 2023-4_BL1101_P19
Tuesday 31-10-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Michael M Nevels -	Lecture L31: 30. Control of Gene Expression 2: Eukaryotes 2023-4_BL1101_L31
Tuesday 31-10-2023 14:00 to 17:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Jo Hobbs Mr Christopher Simmons-Riach	Practical P20: Red and White yeast B 2 2023-4_BL1101_P20
Wednesday 01-11-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Michael M Nevels -	Lecture L32: 31. Viruses 2023-4_BL1101_L32
Wednesday 01-11-2023 14:00 to 17:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Jo Hobbs Mr Christopher Simmons-Riach	Practical P21: Red and White yeast B 3 2023-4_BL1101_P21
Thursday 02-11-2023 10:00 to 11:00	Physics Building Physics LT A	Dr V Anne Smith -	Lecture L33: 32. DNA Technology 2023-4_BL1101_L33

Semester 1: Week 9

DATE & TIME	VENUE	STAFF	EVENT
Monday 06-11-2023 10:00 to 11:00	Physics Building Physics LT A	Dr V Anne Smith -	Lecture L34: 33. DNA Technology Applications and Bioinformatics 2023-4_BL1101_L34
Monday 06-11-2023 14:00 to 17:00	Medical and Biological Sciences Building Multi-purpose lab	Dr Marcus Bischoff Mr Christopher Simmons-Riach	Practical P22: Microscopy A 1 2023-4_BL1101_P22
Tuesday 07-11-2023 10:00 to 11:00	Physics Building Physics LT A	Dr V Anne Smith -	Lecture L35: 34. Genomics and Genomes 2023-4_BL1101_L35
Tuesday 07-11-2023 14:00 to 17:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Marcus Bischoff Mr Christopher Simmons-Riach	Practical P23: Microscopy A 2 2023-4_BL1101_P23
Wednesday 08-11-2023 10:00 to 11:00	Physics Building Physics LT A	Dr David Shuker -	Lecture L36: 35. Evolution 1: Evolution and its history 2023-4_BL1101_L36

Wednesday 08-11-2023 14:00 to 17:00	Medical and Biological Sciences Building Multi-purpose lab	Dr Marcus Bischoff Mr Christopher Simmons-Riach	Practical P24: Microscopy A 3 2023-4_BL1101_P24
Thursday 09-11-2023 10:00 to 11:00	Physics Building Physics LT A	Dr David Shuker -	Lecture L37: 36. Evolution 2: The processes of evolution 2023-4_BL1101_L37
Friday 10-11-2023 15:00 to 15:30	Online MMS	Dr Peter Coote -	Other O3: Continuous assessment: CLASS CALCULATIONS PSQ ASSESSMENT on-line test 2023-4_BL1101_O3

Semester 1: Week 10

DATE & TIME	VENUE	STAFF	EVENT
Monday 13-11-2023 10:00 to 11:00	Physics Building Physics LT A	Dr David Shuker -	Lecture L38: 37. Evolution 3: Why evolution is true 2023-4_BL1101_L38
Monday 13-11-2023 14:00 to 17:00	Medical and Biological Sciences Building Multi-purpose lab	Dr Marcus Bischoff Mr Christopher Simmons-Riach	Practical P25: Microscopy B 1 2023-4_BL1101_P25
Tuesday 14-11-2023 10:00 to 11:00	Physics Building Physics LT A	Dr David Shuker -	Lecture L39: 38. Evolution 4: Measuring evolution 2023-4_BL1101_L39
Tuesday 14-11-2023 14:00 to 17:00	Medical and Biological Sciences Building Multi-purpose lab	Dr Marcus Bischoff Mr Christopher Simmons-Riach	Practical P26: Microscopy B 2 2023-4_BL1101_P26
Wednesday 15-11-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Carolin Kosiol -	Lecture L40: 39. Phylogenetic Reconstruction 2023-4_BL1101_L40
Wednesday 15-11-2023 14:00 to 17:00	Medical and Biological Sciences Building Multi-purpose lab	Dr Marcus Bischoff Mr Christopher Simmons-Riach	Practical P27: Microscopy B 3 2023-4_BL1101_P27
Thursday 16-11-2023 10:00 to 11:00	Physics Building Physics LT A	Dr Carolin Kosiol -	Lecture L41: 40. Molecular Phylogeny 2023-4_BL1101_L41

Semester 1: Week 11

DATE & TIME	VENUE	STAFF	EVENT
Monday 20-11-2023 10:00 to 11:00	Online MMS	Dr Peter Coote -	Other O4: Continuous assessment - Class MCQ Test 2023-4_BL1101_O4
Monday 20-11-2023 14:00 to 16:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Carolin Kosiol s.gurney@st-andrews.ac.uk	Practical P28: Bioinformatics 1 2023-4_BL1101_P28
Monday 20-11-2023 16:00 to 17:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Simon Young -	Tutorial T10: Exam Skills 1 2023-4_BL1101_T10
Tuesday 21-11-2023 14:00 to 16:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Carolin Kosiol s.gurney@st-andrews.ac.uk	Practical P29: Bioinformatics 2 2023-4_BL1101_P29
Tuesday 21-11-2023 16:00 to 17:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Michela Cerone -	Tutorial T11: Exam Skills 2 2023-4_BL1101_T11
Wednesday 22-11-2023 14:00 to 16:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Carolin Kosiol s.gurney@st-andrews.ac.uk	Practical P30: Bioinformatics 3 2023-4_BL1101_P30
Wednesday 22-11-2023 16:00 to 17:00	Medical and Biological Sciences Building Multi-purpose laboratory	Dr Michela Cerone -	Tutorial T12: Exam Skills 3 2023-4_BL1101_T12

BL1101: Reading List

[BL1101Click for BL1101 reading list](#)

BL1101: Assessment

Coursework = 100%.

[BL1101View coursework assessment details for BL1101 \(2023/4\) in MMS](#)

The following related information applies to all Biology modules:

School of Biology Marking Criteria:	See JH booklet info (st-andrews.ac.uk)
Late submission of continuous assessment work:	All late submissions of coursework that do not require electronic submission should be made via the Biology Teaching Office, Level 2, BMS Building, North Haugh.
Exam details:	See School of Biology UG Handbook JH booklet info (st-andrews.ac.uk) : All Biology exams will be conducted online for 2022-23.
Exam timetable:	See Timetables - Exams - University of St Andrews (st-andrews.ac.uk)
Expected attendance:	See JH booklet info (st-andrews.ac.uk) for detailed attendance requirements.
Good Academic Practice & Avoiding Academic Misconduct:	See JH booklet info (st-andrews.ac.uk)
University Student Handbook:	University Student Handbook
School and University regulations in the School and University Undergraduate Handbook relating to absence reporting, penalties and rules for late submission of work, extensions for coursework, return of coursework, S-coding, good academic practice and Academic Alerts.:	JH booklet info (st-andrews.ac.uk) University Student Handbook

Who to ask

(Information in this section applies to all Biology Modules)

Before contacting staff, students should check the content of the Biology Undergraduate Handbook, the module handbook and specific task instructions.

Questions about

General teaching matters
Rescheduled or cancelled events
Lecture or practical content
Completing assessed practical assignments
Completing assessments
Marking on continuous assessment
Marking on exams
Rearranging practical days
Absence and/or extensions
Difficulties with academic progress which impact more than one module:
Overall performance, progress or future directions:
Disability:
For advice and support on any issue e.g. academic, financial, international, personal or health matters, or if you are unsure of who to go to for help:

University assistance with urgent matters out of office hours:

Contact

Biology Teaching Office (bioteach@st-andrews.ac.uk)
Check your University email
The lecturer who presented the material
The lecturer who set the assignment
Module Organiser (Dr Peter Coote pjc5@st-andrews.ac.uk)
The Demonstrator or Module Organiser (Dr Peter Coote pjc5@st-andrews.ac.uk)
Module Organiser (Dr Peter Coote pjc5@st-andrews.ac.uk)
Module Organiser (Dr Peter Coote pjc5@st-andrews.ac.uk)
Module Organiser (Dr Peter Coote pjc5@st-andrews.ac.uk)
and the Biology Teaching Office (bioteach@st-andrews.ac.uk)
Year Coordinator
See School of Biology UG Handbook for list:
[JH booklet info \(st-andrews.ac.uk\)](#)
Advisor of Studies
Disability Coordinator (biodisabilities@st-andrews.ac.uk)
Advice & Support Centre
Address: 79 North Street, St Andrews
Email: theasc@st-andrews.ac.uk
Web: <https://www.standrews.ac.uk/ask-a-question/>
Tel: 01334 462020
Tel: 01334 476161
Web:
<https://www.st-andrews.ac.uk/students/advice/counselling/incrisis/>

Biology Teaching Office:

We are happy to hear from you about teaching matters. The School of Biology Teaching Office is open Monday to Friday 09.00 - 13.00 and 14.00 - 17.00. School of Biology staff will respond to your emails during these hours. Our team will provide a response to you within three working days.

Biology Teaching Office (Level 2), University of St Andrews, Biomolecular Sciences Building, North Haugh, St Andrews, Fife KY16 9ST

Email: bioteach@st-andrews.ac.uk

Tel: 01334 46 3602 or 3566

BL1101: Contributing Staff

<u>Dr Peter Coote</u> (Module Organiser)	Lecturer	pjc5@st-andrews.ac.uk
Dr Marcus Bischoff	Lecturer	mb273@st-andrews.ac.uk
Dr Michela Cerone	Lecturer in Biochemistry	mc319@st-andrews.ac.uk
Dr Peter Coote (Module Organiser)	Lecturer	pjc5@st-andrews.ac.uk
Dr Helder Ferreira	Lecturer	hcf2@st-andrews.ac.uk
Dr Jo Hobbs	Lecturer in Molecular Microbiology	jkh26@st-andrews.ac.uk
Dr Carolin Kosiol	Reader	ck202@st-andrews.ac.uk
Prof Kevin Lala	Professor	kn11@st-andrews.ac.uk
Dr Jacqueline Nairn	Senior Lecturer	jn37@st-andrews.ac.uk
Dr Michael M Nevels	Reader in Virology	mmn3@st-andrews.ac.uk
Prof Graeme Ruxton	Professor	gr41@st-andrews.ac.uk
Dr Uli Schwarz-Linek	Senior Lecturer	us6@st-andrews.ac.uk
Dr David Shuker	Senior Lecturer in Behavioural Ecology	dms14@st-andrews.ac.uk
Mr Christopher Simmons-Riach	Technician	csr5@st-andrews.ac.uk
Dr Judith Sleeman	Senior Lecturer in Cell and Developmental Biology	jes14@st-andrews.ac.uk
Dr V Anne Smith	Senior Lecturer	vas1@st-andrews.ac.uk
Dr Simon Young	Associate Lecturer (Education focused)	say2@st-andrews.ac.uk

BL1101: Learning Outcomes

The aim of this module is to introduce you to fundamental concepts in biology related to cells, biological molecules, genetics and evolution. The module is divided into several sections covering: Cells & Genetics, Biological molecules & biotechnology, Energy & metabolism, Evolution

Students completing module BL1101 successfully should be able to:

- Understand the basic structure and function of cells, how cells originated, and their organelles.
- Understand Mendelian genetics and its extensions, be able to map genes from linkage data.
- Understand the basic structure of DNA and RNA and their role in protein synthesis.
- Have a general understanding of bioinformatics.
- Have a general understanding of modern biotechnology, including uses of recombinant DNA.
- Understand what proteins are and how they function.
- Understand the usage of energy in living systems and the basic features of metabolism.
- Understand basic principles governing biological evolution.

BL1101: Acquired Skills

Practical Skills

- Agarose gel
- Biomolecule isolation/characterisation
- Compound Microscopy
- Database interrogation
- DNA isolation
- Handling microbes
- Pipetting
- Transformation

Transferable Skills

- Group discussion - participating
- "Full" practical write-up (Intro, Methods, Results, Discussion)
- "Short" practical write-up (e.g. completed worksheet)
- Short essay (1000-2000 words)
- Finding information on the web
- Finding literature
- Referencing
- Sourcing figures/tables
- Generating questions
- Lab safety awareness
- Peer assessment
- Problem-solving questions
- Calculations/equations
- Concentrations
- Decimal places
- Descriptive statistics
- Dilutions
- Powers of ten
- Produce tables
- SI units
- Significant figures
- Volumes
- Lab or field notebook
- Designing experiments
- Working in pairs/small groups

Policies

(Information in this section applies to all Biology Modules)

- The procedures and regulations followed by the School of Biology are outlined in the [University Handbook](#) and in the School of Biology UG handbook [JH booklet info \(st-andrews.ac.uk\)](#)
- All coursework associated with the module must be completed and submitted by its due date.
- Specific School regulations relating to absence reporting, penalties and rules for late submission of work, extensions for coursework, return of coursework, S-coding, Good Academic Practice and Academic Alert are stated in the School of Biology UG handbook [JH booklet info \(st-andrews.ac.uk\)](#) and students are required to carefully read these regulations.
- Students are also referred to the University Handbook, available at: <http://www.st-andrews.ac.uk/studenthandbook/>