

BL3318 Biology of Marine Organisms

(BL3318 online module handbook version 106)

Credits: 20

Semester: 2

Module Organiser

Dr Julie Oswald

jno@st-andrews.ac.uk

Pre-requisite Modules:

Before taking this module
you must pass 1 module
from {BL2307, BL2311}.

Before taking this module
you must pass 1 module
from {BL2304, BL2308,
BL2312}

Anti-requisite Modules:

Post-requisite Modules:

Additional Module

Information:

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



image: credit: Chris Wattie/Reuters

This module will include lectures on the range of microbial and metazoan organisms and ecological systems in the marine environment. The coverage will range from bacteria, to algae, invertebrates and vertebrates (fish, birds, reptiles and mammals). The biology of marine organisms is considered in the context of both adaptations at the level of the individual and its expression in terms of large-scale latitudinal and depth-related variations in productivity and food web structure. Examples from the poles to the tropics and from shallow water to the deep ocean will be included.

[BL3318View content for BL3318 \(2023/4\) in the Module Management System \(MMS\)](#)

[View the current Biology Online Module Catalogue for BL3318](#)

[BL3318View BL3318 \(2023/4\) in the University of St Andrews Module Catalogue](#)

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BL3318: Timetable

Legend (not all modules have every event type):

lecture	tutorial	workshop	practical	other
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Semester 2: Week 1

DATE & TIME	VENUE	STAFF	EVENT
Monday 15-01-2024 12:05 to 12:55	Bute Building Lecture theatre A	Dr Julie Oswald -	Lecture L1: Introduction to the module <small>2023-4_BL3318_L1</small>
Tuesday 16-01-2024 12:05 to 12:55	Bute Building Lecture theatre A	Prof Vincent Janik -	Lecture L2: Literature discussion <small>2023-4_BL3318_L2</small>
Wednesday 17-01-2024 12:05 to 12:55	Bute Building Lecture theatre A	Prof Vincent Janik -	Lecture L3: Literature discussion <small>2023-4_BL3318_L3</small>

Semester 2: Week 2

DATE & TIME	VENUE	STAFF	EVENT
Monday 22-01-2024 12:05 to 13:00	Bute Building Lecture theatre A	Dr Andrew Blight -	Lecture L4: Algae I: Macroalgae <small>2023-4_BL3318_L4</small>
Tuesday 23-01-2024 12:05 to 12:55	Bute Building Lecture theatre A	Prof David M. Paterson -	Lecture L5: Algae II: Oceanic microalgae <small>2023-4_BL3318_L5</small>
Wednesday 24-01-2024 12:05 to 12:55	Bute Building Lecture theatre A	Dr Andrew Blight -	Lecture L6: Seagrasses <small>2023-4_BL3318_L6</small>

Semester 2: Week 3

DATE & TIME	VENUE	STAFF	EVENT
Monday 29-01-2024 12:05 to 12:55	Bute Building Lecture theatre A	HarisZaimovic -	Lecture L7: The biology and business of algae <small>2023-4_BL3318_L7</small>
Tuesday 30-01-2024 12:05 to 12:55	Bute Building Lecture theatre A	Prof David M. Paterson -	Lecture L8: Algae III: Microphytobenthos <small>2023-4_BL3318_L8</small>
Wednesday 31-01-2024 12:05 to 12:55	Bute Building Lecture theatre A	Prof Graeme Ruxton -	Lecture L9: Sharks <small>2023-4_BL3318_L9</small>

Semester 2: Week 4

DATE & TIME	VENUE	STAFF	EVENT
Monday 05-02-2024 12:05 to 12:55	Bute Building Lecture theatre A	Prof Simon Northridge -	Lecture L10: Five things about a fish presentations <small>2023-4_BL3318_L10</small>
Tuesday 06-02-2024 12:05 to 12:55	Bute Building Lecture theatre A	Prof Simon Northridge -	Lecture L11: Five things about a fish presentations <small>2023-4_BL3318_L11</small>
Wednesday 07-02-2024 12:05 to 12:55	Bute Building Lecture theatre A	Prof Simon Northridge -	Lecture L12: Five things about a fish presentations <small>2023-4_BL3318_L12</small>
Thursday 08-02-2024 14:00 to 17:00	Medical and Biological Sciences Building Small biology teaching lab	Dr Julie Oswald -	Practical P1: Fish body shape and feeding <small>2023-4_BL3318_P1</small>
Friday 09-02-2024 14:00 to 17:00	Medical and Biological Sciences Building Small biology teaching lab	Dr Julie Oswald -	Practical P2: Fish body shape and feeding <small>2023-4_BL3318_P2</small>

Semester 2: Week 5

DATE & TIME	VENUE	STAFF	EVENT
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Monday 12-02-2024 12:05 to 12:55	Bute Building Lecture theatre A	Ms Nora Von Xylander -	Lecture L13: Corals 2023-4_BL3318_L13
Tuesday 13-02-2024 12:05 to 12:55	Bute Building Lecture theatre A	Dr Julie Hope -	Lecture L14: Benthic organisms 2023-4_BL3318_L14
Wednesday 14-02-2024 12:05 to 12:55	Bute Building Lecture theatre A	Dr Julie Hope -	Lecture L15: Benthic organisms 2023-4_BL3318_L15
Thursday 15-02-2024 14:00 to 17:00	Scottish Oceans Institute Teaching lab	Dr Julie Hope -	Practical P3: Burrowing invertebrates 2023-4_BL3318_P3
Friday 16-02-2024 14:00 to 17:00	Scottish Oceans Institute Teaching lab	Dr Julie Hope -	Practical P4: Burrowing invertebrates 2023-4_BL3318_P4

Semester 2: Week 6

DATE & TIME	VENUE	STAFF	EVENT
Monday 19-02-2024 12:05 to 12:55	Bute Building Lecture theatre A	Dr Andrew Blight -	Lecture L16: Macrobenthic rocky subtidal organisms 2023-4_BL3318_L16
Tuesday 20-02-2024 12:05 to 12:55	Bute Building Lecture theatre A	Prof Graeme Ruxton -	Lecture L17: Seabirds 2023-4_BL3318_L17
Wednesday 21-02-2024 12:05 to 12:55	Bute Building Lecture theatre A	Prof Graeme Ruxton -	Lecture L18: Marine reptiles 2023-4_BL3318_L18

Spring Break: 26-Feb-2024 to 01-Mar-2024

Semester 2: Week 7

DATE & TIME	VENUE	STAFF	EVENT
Monday 04-03-2024 12:05 to 12:55	Bute Building Lecture theatre A	Dr Clarissa Czekster -	Lecture L19: Marine microbes I 2023-4_BL3318_L19
Tuesday 05-03-2024 12:05 to 12:55	Bute Building Lecture theatre A	Dr Clarissa Czekster -	Lecture L20: Marine microbes II 2023-4_BL3318_L20
Wednesday 06-03-2024 12:05 to 12:55	Bute Building Lecture theatre A	Prof David M. Paterson -	Lecture L21: Marine microbes III: Stromatolites 2023-4_BL3318_L21

Semester 2: Week 8

DATE & TIME	VENUE	STAFF	EVENT
Monday 11-03-2024 12:05 to 12:55	Bute Building Lecture theatre A	Dr Julie Hope -	Lecture L22: Hydrothermal vent communities 2023-4_BL3318_L22
Tuesday 12-03-2024 12:05 to 12:55	Bute Building Lecture theatre A	Dr J. Chris McKnight -	Lecture L23: Marine mammal diving adaptations I 2023-4_BL3318_L23
Wednesday 13-03-2024 12:05 to 12:55	Bute Building Lecture theatre A	Dr J. Chris McKnight -	Lecture L24: Marine mammal diving adaptations II 2023-4_BL3318_L24
Thursday 14-03-2024 09:00 to 12:00	Scottish Oceans Institute Teaching lab	Dr J. Chris McKnight -	Practical P5: Marine mammal diving adaptations 2023-4_BL3318_P5
Friday 15-03-2024 14:00 to 17:00	Scottish Oceans Institute Teaching lab	Dr J. Chris McKnight -	Practical P6: Marine mammal diving adaptations 2023-4_BL3318_P6

Semester 2: Week 9

DATE & TIME	VENUE	STAFF	EVENT
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Monday 18-03-2024 12:05 to 12:55	Bute Building Lecture theatre A	Dr Julie Oswald -	Lecture L25: Marine mammal feeding I 2023-4_BL3318_L25
Tuesday 19-03-2024 12:05 to 12:55	Bute Building Lecture theatre A	Dr Julie Oswald -	Lecture L26: Marine mammal feeding II 2023-4_BL3318_L26
Wednesday 20-03-2024 12:05 to 12:55	Bute Building Lecture theatre A	Dr Julie Oswald -	Lecture L27: Polar organisms 2023-4_BL3318_L27

Semester 2: Week 10

DATE & TIME	VENUE	STAFF	EVENT
Monday 25-03-2024 12:05 to 12:55	Bute Building Lecture theatre A	Dr Julie Oswald -	Lecture L28: Deep sea organisms 2023-4_BL3318_L28
Tuesday 26-03-2024 12:05 to 12:55	Bute Building Lecture theatre A	cnr4 -	Lecture L29: Zooplankton 2023-4_BL3318_L29
Wednesday 27-03-2024 12:05 to 12:55	Bute Building Lecture theatre A	cnr4 -	Lecture L30: Krill 2023-4_BL3318_L30

Semester 2: Week 11

DATE & TIME	VENUE	STAFF	EVENT
Monday 01-04-2024 12:05 to 12:55	Bute Building Lecture theatre A	cnr4 -	Lecture L31: Cephalopods 2023-4_BL3318_L31
Tuesday 02-04-2024 12:05 to 12:55	Bute Building Lecture theatre A	Dr Charles Paxton -	Lecture L32: The kraken and the giant squid 2023-4_BL3318_L32
Wednesday 03-04-2024 12:05 to 12:55	Bute Building Lecture theatre A	Prof Andrew Brierley -	Lecture L33: Jellyfish 2023-4_BL3318_L33

BL3318: Reading List

[BL3318Click for BL3318 reading list](#)

BL3318: Assessment

3-hour Written Examination = 50%, Coursework = 50%

[BL3318View coursework assessment details for BL3318 \(2023/4\) 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 Julie Oswald jno@st-andrews.ac.uk](mailto:Dr%20Julie%20Oswald%20jno@st-andrews.ac.uk))
The Demonstrator or Module Organiser ([Dr Julie Oswald jno@st-andrews.ac.uk](mailto:Dr%20Julie%20Oswald%20jno@st-andrews.ac.uk))
Module Organiser ([Dr Julie Oswald jno@st-andrews.ac.uk](mailto:Dr%20Julie%20Oswald%20jno@st-andrews.ac.uk))
Module Organiser ([Dr Julie Oswald jno@st-andrews.ac.uk](mailto:Dr%20Julie%20Oswald%20jno@st-andrews.ac.uk))
Module Organiser ([Dr Julie Oswald jno@st-andrews.ac.uk](mailto:Dr%20Julie%20Oswald%20jno@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 \(st-andrews.ac.uk\)](http://www.st-andrews.ac.uk/jh-booklet-info)
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

BL3318: Contributing Staff

Dr Julie Oswald
(Module Organiser)

Senior Lecturer

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Dr Andrew Blight

Lecturer

ajb34@st-andrews.ac.uk

Prof Andrew Brierley

Professor in Biology

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Dr Clarissa Czekster

Wellcome Trust Sir Henry Dale
Fellow and Lecturer

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Lecturer in Marine Biology

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Prof Vincent Janik

Professor of Biology

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Dr J. Chris McKnight

Research Fellow

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Prof Simon Northridge

Head of School

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Dr Julie Oswald

(Module Organiser)

Senior Lecturer

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Prof David M. Paterson

Executive Director of MASTS:
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and Technology for Scotland

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Dr Charles Paxton

Research Fellow

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Prof Graeme Ruxton

Professor

gr41@st-andrews.ac.uk

Ms Nora Von XYlander

Assistant Demonstrator

nshvx1@st-andrews.ac.uk

BL3318: Learning Outcomes

Students completing module BL3318 successfully should be able to:

- 1. Demonstrate a sound grounding of the biology of the wide variety of organisms that live in, or in close association with, the marine environment.
- 2. Compare and contrast the diving adaptations and feeding strategies across the diversity of marine mammal species.
- 3. Describe the diversity of non-mammalian large vertebrates in marine ecosystems.
- 4. Understand the significance of diet, growth and body size for fish ecology, appreciate the key features of fish mating systems
- 6. Understand the dynamics of intertidal and subtidal communities
- 7. Describe and compare adaptations of marine organisms to pelagic, polar, tropical and deep sea environments
- 8. Describe adaptations of marine organisms in hydrothermal vent communities

BL3318: Acquired Skills

Practical Skills

- Measuring specimens using calipers
- Purpose and practice of dissection

Transferable Skills

- Group discussion - participating
- Journal club
- Short individual presentation on given topic (up to 15 min)
- Short informal presentation (using PowerPoint or not)
- "Full" practical write-up (Intro, Methods, Results, Discussion)
- "Short" practical write-up (e.g. completed worksheet)
- Research proposal
- Critically evaluating sources/information
- Finding information on the web
- Finding literature
- Referencing
- Sourcing figures/tables
- Generating questions
- Online learning
- Peer assessment
- Problem-solving questions
- Calculations/equations
- Data analysis
- Data presentation
- Produce graphs/figures
- Produce tables
- Use other data analysis software
- Critiquing experimental design
- Generate class dataset
- Managing a team
- Organising group work
- 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/>