This module introduces the ecology of aquatic systems beginning with a description of the problems of life in a fluid medium. The module then considers the contrasting conditions that are inherent in freshwater, estuarine and marine systems. The influence of global climate variation and the close coupling between land and sea will be emphasised. Case studies will then be used to introduce the ecology of a variety of aquatic systems including tropical, temperate and polar systems.
Contents:

- Cover
- Contents
- Timetable
- Reading List
- Assessment
- Who To Ask
- Contributing Staff
- Learning Outcomes
- Acquired Skills
- Policies
# BL3308: Timetable

**Legend** (not all modules have every event type):
- **lecture**
- **tutorial**
- **workshop**
- **practical**
- **other**

## Semester 1: Week 1

<table>
<thead>
<tr>
<th>DATE &amp; TIME</th>
<th>VENUE</th>
<th>STAFF</th>
<th>EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday 14-09-2020</td>
<td>Online</td>
<td>Dr Iain Matthews</td>
<td>Tutorial T1: Introduction</td>
</tr>
<tr>
<td>10:00 to 11:00</td>
<td>Teams</td>
<td></td>
<td><a href="#">2020-1_BL3308_T1</a></td>
</tr>
<tr>
<td>Tuesday 15-09-2020</td>
<td>Online</td>
<td>Dr Andrew Blight</td>
<td>Lecture L1: The physical properties of water</td>
</tr>
<tr>
<td>10:00 to 11:00</td>
<td>Panopto</td>
<td></td>
<td><a href="#">2020-1_BL3308_L1</a></td>
</tr>
<tr>
<td>Wednesday 16-09-20</td>
<td>Online</td>
<td>Dr Andrew Blight</td>
<td>Lecture L2: Dynamics of aquatic systems: drag and stress</td>
</tr>
<tr>
<td>10:00 to 11:00</td>
<td>Panopto</td>
<td></td>
<td><a href="#">2020-1_BL3308_L2</a></td>
</tr>
</tbody>
</table>

## Semester 1: Week 2

<table>
<thead>
<tr>
<th>DATE &amp; TIME</th>
<th>VENUE</th>
<th>STAFF</th>
<th>EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday 21-09-2020</td>
<td>Online</td>
<td>Dr Iain Matthews</td>
<td>Lecture L3: Lotic systems I</td>
</tr>
<tr>
<td>10:00 to 11:00</td>
<td>Panopto</td>
<td></td>
<td><a href="#">2020-1_BL3308_L3</a></td>
</tr>
<tr>
<td>Tuesday 22-09-2020</td>
<td>Online</td>
<td>Dr Iain Matthews</td>
<td>Lecture L4: Lotic systems II</td>
</tr>
<tr>
<td>10:00 to 11:00</td>
<td>Panopto</td>
<td></td>
<td><a href="#">2020-1_BL3308_L4</a></td>
</tr>
<tr>
<td>Wednesday 23-09-20</td>
<td>Online</td>
<td>Dr Iain Matthews</td>
<td>Tutorial T2: Lotic systems III</td>
</tr>
<tr>
<td>10:00 to 11:00</td>
<td>Teams</td>
<td></td>
<td><a href="#">2020-1_BL3308_T2</a></td>
</tr>
</tbody>
</table>

## Semester 1: Week 3

<table>
<thead>
<tr>
<th>DATE &amp; TIME</th>
<th>VENUE</th>
<th>STAFF</th>
<th>EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday 28-09-2020</td>
<td>Online</td>
<td>Dr Iain Matthews</td>
<td>Lecture L5: Lentic Systems I: The abiotic environment in lakes</td>
</tr>
<tr>
<td>10:00 to 11:00</td>
<td>Panopto</td>
<td></td>
<td><a href="#">2020-1_BL3308_L5</a></td>
</tr>
<tr>
<td>Tuesday 29-09-2020</td>
<td>Online</td>
<td>Dr Iain Matthews</td>
<td>Lecture L6: Lentic Systems II: Physiological adaptation in lakes</td>
</tr>
<tr>
<td>10:00 to 11:00</td>
<td>Panopto</td>
<td></td>
<td><a href="#">2020-1_BL3308_L6</a></td>
</tr>
<tr>
<td>Wednesday 30-09-20</td>
<td>Online</td>
<td>Dr Iain Matthews</td>
<td>Tutorial T3: Lentic Systems III: Eutrophication impacts and management</td>
</tr>
<tr>
<td>10:00 to 11:00</td>
<td>Panopto</td>
<td></td>
<td><a href="#">2020-1_BL3308_T3</a></td>
</tr>
</tbody>
</table>

## Semester 1: Week 4

<table>
<thead>
<tr>
<th>DATE &amp; TIME</th>
<th>VENUE</th>
<th>STAFF</th>
<th>EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday 05-10-2020</td>
<td>Online</td>
<td>Dr Iain Matthews</td>
<td>Lecture L7: Field sampling</td>
</tr>
<tr>
<td>10:00 to 11:00</td>
<td>Panopto</td>
<td></td>
<td><a href="#">2020-1_BL3308_L7</a></td>
</tr>
<tr>
<td>Tuesday 06-10-2020</td>
<td>Online</td>
<td>Dr Iain Matthews</td>
<td>Lecture L8: Indicator species</td>
</tr>
<tr>
<td>10:00 to 11:00</td>
<td>Panopto</td>
<td></td>
<td><a href="#">2020-1_BL3308_L8</a></td>
</tr>
<tr>
<td>Wednesday 07-10-20</td>
<td>Online</td>
<td>Dr Iain Matthews</td>
<td>Tutorial T4: Anthropogenic impacts on FW systems</td>
</tr>
<tr>
<td>10:00 to 11:00</td>
<td>Teams</td>
<td></td>
<td><a href="#">2020-1_BL3308_T4</a></td>
</tr>
</tbody>
</table>

## Semester 1: Week 5

<table>
<thead>
<tr>
<th>DATE &amp; TIME</th>
<th>VENUE</th>
<th>STAFF</th>
<th>EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday 12-10-2020</td>
<td>Online</td>
<td>TBC</td>
<td>Lecture L9: Visiting Speaker</td>
</tr>
<tr>
<td>10:00 to 11:00</td>
<td>Panopto</td>
<td></td>
<td><a href="#">2020-1_BL3308_L9</a></td>
</tr>
<tr>
<td>Wednesday</td>
<td>Online</td>
<td><strong>Dr Iain Matthews</strong></td>
<td>Other 03: <strong>Student seminar talks</strong></td>
</tr>
<tr>
<td>---------------</td>
<td>--------</td>
<td>----------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>25-11-2020</td>
<td></td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>14:00 to 17:00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
BL3308: Reading List

Click for BL3308 reading list

BL3308: Assessment

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

View coursework assessment details for BL3308 (2020/1) in MMS

The following related information applies to all Biology modules:

- **School of Biology Marking Criteria:** See School of Biology Undergraduate Handbook
- **Late submission of continuous assessment work:** All late submissions of coursework that do not require electronic submission should be made via the late submissions box in the Biology Study Space, St Andrews New Technology Centre Building (beside the Teaching Office)
- **Exam details:** See School of Biology Undergraduate Handbook
- **Exam timetable:** see http://www.st-andrews.ac.uk/students/academic/examinations/examtimetables/current/
- **Expected attendance:** See School of Biology Undergraduate Handbook for detailed attendance requirements.
- **Good Academic Practice & Avoiding Academic Misconduct:** See School of Biology Undergraduate Handbook
- **University Student Handbook:** University Student Handbook
  - School of Biology Undergraduate Handbook
  - University Student Handbook
Who to ask

(Information in this section applies to all Biology Modules)

Questions about different aspects of the module should be directed to different people:

**Questions about** | **Contact**
--- | ---
General teaching matters | Biology Teaching Office (bioteach@st-andrews.ac.uk)
Rescheduled or cancelled events | Check your University email
Lecture or practical content | The lecture who presented the material
Completing assessed practical assignments | The lecturer who set the assignment
Completing assessments | Module Organiser (Dr Iain Matthews imm7@st-andrews.ac.uk)
Marking on continuous assessment | The Demonstrator or Module Organiser (Dr Iain Matthews imm7@st-andrews.ac.uk)
Marking on exams | Module Organiser (Dr Iain Matthews imm7@st-andrews.ac.uk)
Rearranging practical days | James Price
Absence and/or extensions | Module Organiser (Dr Iain Matthews imm7@st-andrews.ac.uk) and the Biology Teaching Office (bioteach@st-andrews.ac.uk)
Difficulties with academic progress which impact more than one module: Year Coordinator See School of Biology Undergraduate student handbook for list: http://biology.st-andrews.ac.uk/documents/UndergraduateHandbook.pdf
Difficulties with academic progress which impact more than one module: Advisor of Studies
Overall performance, progress or future directions: Disability Coordinator (Dr Jacqueline Nairn jn37@st-andrews.ac.uk)
Disability: Advice & Support Centre
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: Address: 79 North Street, St Andrews
Email: theasc@st-andrews.ac.uk
Web: https://www.standrews.ac.uk/ask-a-question/
Tel: 01334 462020
University assistance with urgent matters out of office hours:
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, The Biology Hive, New Technology Centre, University of St Andrews, North Haugh, St Andrews, Fife KY16 9SR

Email: bioteach@st-andrews.ac.uk

Tel: 01334 463602/3566
<table>
<thead>
<tr>
<th><strong>Name</strong></th>
<th><strong>Position</strong></th>
<th><strong>Email</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Iain Matthews</td>
<td>(Module Organiser) Senior Teaching Fellow &amp; Pro-Dean for the Faculty of Science</td>
<td><a href="mailto:IMM7@st-andrews.ac.uk">IMM7@st-andrews.ac.uk</a></td>
</tr>
<tr>
<td>Dr Andrew Blight</td>
<td>Laboratory Manager/Research Fellow</td>
<td><a href="mailto:AJB34@st-andrews.ac.uk">AJB34@st-andrews.ac.uk</a></td>
</tr>
<tr>
<td>Dr Lars Boehme</td>
<td>Reader</td>
<td><a href="mailto:LB284@st-andrews.ac.uk">LB284@st-andrews.ac.uk</a></td>
</tr>
<tr>
<td>Dr Iain Matthews</td>
<td>(Module Organiser) Senior Teaching Fellow &amp; Pro-Dean for the Faculty of Science</td>
<td><a href="mailto:IMM7@st-andrews.ac.uk">IMM7@st-andrews.ac.uk</a></td>
</tr>
<tr>
<td>Dr Julie Oswald</td>
<td>Lecturer (Education Focused)</td>
<td><a href="mailto:jno@st-andrews.ac.uk">jno@st-andrews.ac.uk</a></td>
</tr>
</tbody>
</table>
BL3308: Learning Outcomes

No details are currently available for Learning Outcomes
BL3308: Acquired Skills

Practical Skills

- Collecting animals and plants
- Field sampling methods (Botanics)
- Field sampling methods (Invertebrates)
- Fieldwork safety awareness
- Labelling specimens and managing collections
- Measuring structures using microscopes
- Species identification (Botany)
- Species identification (Invertebrates)
- Using dichotomous keys

Transferable Skills

- Group discussion - leading
- Group discussion - participating
- Short individual presentation on given topic (up to 15 min)
- Handout (for presentation or poster)
- Long essay (>2000 words)
- Critically evaluating sources/information
- Finding information on the web
- Finding literature
- Referencing
- Sourcing figures/tables
- Ethical considerations
- Generating questions
- Role play
- Biodiversity analysis
- Data analysis
- Data analysis (depending on project)
- Descriptive statistics
- Produce graphs/figures
- Significant figures
- Use Excel
- Use R or R Studio
- Lab or field notebook
- Critiquing experimental design
- Designing experiments
- Generate class dataset
- Managing a team
- Organising group work
- Working in large groups
- 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 Undergraduate Handbook (https://synergy.st-andrews.ac.uk/biocurrentstudent/files/2017/09/UndergraduateHandbook.pdf).
- 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 Undergraduate Handbook 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/