BIOL2210
Life Processes
Session 2, Infrequent attendance, North Ryde 2021

Department of Biological Sciences

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Session 2 Learning and Teaching Update

The decision has been made to conduct study online for the remainder of Session 2 for all units WITHOUT mandatory on-campus learning activities. Exams for Session 2 will also be online where possible to do so.

This is due to the extension of the lockdown orders and to provide certainty around arrangements for the remainder of Session 2. We hope to return to campus beyond Session 2 as soon as it is safe and appropriate to do so.

Some classes/teaching activities cannot be moved online and must be taught on campus. You should already know if you are in one of these classes/teaching activities and your unit convenor will provide you with more information via iLearn. If you want to confirm, see the list of units with mandatory on-campus classes/teaching activities.

Visit the MQ COVID-19 information page for more detail.
General Information

Unit convenor and teaching staff
Convenor
Simon Griffith
simon.griffith@mq.edu.au

Credit points
10

Prerequisites
(40cp at 1000 level or above) including (BIOL1310 or BIOL114) or (BIOL1110 or BIOL115)

Corequisites

Co-badged status
BIOL6210, BIOX2210

Unit description
This unit will compare and contrast a range of physiological processes in microbes, plants and animals. It will highlight common features and their evolutionary origins, with particular reference to prokaryotic genes which have been conserved in multicellular organisms. Topics to be explored include metabolism (e.g. respiration, photosynthesis and transport), environmental responses (e.g. abiotic stress response, immune reactions, behaviour), morphogenesis (e.g. cell division, homeotic genes, embryogenesis and symmetry) and phenology (e.g. sexual maturation, fertilisation, life cycles). The unit will draw the common threads of evolution together in complex multicellular organisms, as well as contrasting those processes unique to each Kingdom, such as photosynthesis and locomotion.

Important Academic Dates
Information about important academic dates including deadlines for withdrawing from units are available at https://students.mq.edu.au/important-dates

Learning Outcomes
On successful completion of this unit, you will be able to:

ULO1: Describe the co-ordination of physiological processes in organisms, including transport systems and responses to stimuli
ULO2: Apply detailed knowledge to explain the processes by which organisms gain energy, grow, and develop
ULO3: Compare and contrast physiological processes, and their evolution, in microbes,
plants, and animals

ULO4: Demonstrate critical thinking and writing skills to appraise scientific literature on a major physiological theme

ULO5: Analyse and interpret complex experimental data and critically evaluate these data in the context of physiological phenomena

ULO6: Apply broad and coherent knowledge of physiology to applications in the fields of biotechnology and medicine

Assessment Tasks

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Hurdle</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Exam</td>
<td>40%</td>
<td>Yes</td>
<td>Exam Period</td>
</tr>
<tr>
<td>Practical quizzes</td>
<td>20%</td>
<td>No</td>
<td>After on campus sessions in August and September</td>
</tr>
<tr>
<td>Written assessment</td>
<td>20%</td>
<td>No</td>
<td>Week 12 Monday 25th October</td>
</tr>
<tr>
<td>Weekly quizzes</td>
<td>20%</td>
<td>No</td>
<td>After each lecture (Week 1-13)</td>
</tr>
</tbody>
</table>

Final Exam

Assessment Type 1: Examination
Indicative Time on Task 2: 20 hours
Due: Exam Period
Weighting: 40%

This is a hurdle assessment task (see assessment policy for more information on hurdle assessment tasks)

An analytical set of questions assembled in graded order of difficulty designed to test understanding rather than factual recall

On successful completion you will be able to:

- Describe the co-ordination of physiological processes in organisms, including transport systems and responses to stimuli
- Apply detailed knowledge to explain the processes by which organisms gain energy, grow, and develop
- Compare and contrast physiological processes, and their evolution, in microbes, plants,
and animals
• Analyse and interpret complex experimental data and critically evaluate these data in the context of physiological phenomena
• Apply broad and coherent knowledge of physiology to applications in the fields of biotechnology and medicine

Practical quizzes
Assessment Type 1: Quiz/Test
Indicative Time on Task 2: 10 hours
Due: After on campus sessions in August and September
Weighting: 20%

Students complete a set of prac-specific questions embedded in each practical with answers registered in iLearn

On successful completion you will be able to:
• Describe the co-ordination of physiological processes in organisms, including transport systems and responses to stimuli
• Apply detailed knowledge to explain the processes by which organisms gain energy, grow, and develop
• Demonstrate critical thinking and writing skills to appraise scientific literature on a major physiological theme

Written assessment
Assessment Type 1: Report
Indicative Time on Task 2: 15 hours
Due: Week 12 Monday 25th October
Weighting: 20%

A critical analysis of two recent publications on one of a set of topics chosen by the student

On successful completion you will be able to:
• Demonstrate critical thinking and writing skills to appraise scientific literature on a major physiological theme
• Analyse and interpret complex experimental data and critically evaluate these data in the
context of physiological phenomena
• Apply broad and coherent knowledge of physiology to applications in the fields of biotechnology and medicine

Weekly quizzes
Assessment Type ¹: Quiz/Test
Indicative Time on Task ²: 12 hours
Due: After each lecture (Week 1-13)
Weighting: 20%

Students complete a set of lecture-specific questions embedded in each lecture with answers registered in iLearn

On successful completion you will be able to:
• Describe the co-ordination of physiological processes in organisms, including transport systems and responses to stimuli
• Apply detailed knowledge to explain the processes by which organisms gain energy, grow, and develop
• Compare and contrast physiological processes, and their evolution, in microbes, plants, and animals

¹ If you need help with your assignment, please contact:
• the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
• the Learning Skills Unit for academic skills support.

² Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources
All lectures will be online in this unit in 2021, and posted on ilearn and echo.

All practicals will be conducted live and will require attendance during the five on campus sessions (28th and 29th August, and 13th, 14th and 15th September).

Policies and Procedures
Macquarie University policies and procedures are accessible from Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-centr
Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy (Note: The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.)

Students seeking more policy resources can visit the Student Policy Gateway (https://students.mq.edu.au/support/study/student-policy-gateway). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).

**Student Code of Conduct**

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/admin/other-resources/student-conduct

**Results**

Results published on platform other than eStudent, (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

**Student Support**

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

**Learning Skills**

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- Getting help with your assignment
- Workshops
- StudyWise
- Academic Integrity Module

https://unitguides.mq.edu.au/unit_offerings/136509/unit_guide/print
The Library provides online and face to face support to help you find and use relevant information resources.

- Subject and Research Guides
- Ask a Librarian

Student Enquiry Service
For all student enquiries, visit Student Connect at ask.mq.edu.au

If you are a Global MBA student contact globalmba.support@mq.edu.au

Equity Support
Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

IT Help
For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University’s IT, you must adhere to the Acceptable Use of IT Resources Policy. The policy applies to all who connect to the MQ network including students.

Changes since First Published

<table>
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<tr>
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<th>Description</th>
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<tr>
<td>13/08/2021</td>
<td>Removed <a href="mailto:BIOL2210@mq.edu.au">BIOL2210@mq.edu.au</a> mailbox at request of convenor.</td>
</tr>
<tr>
<td>13/08/2021</td>
<td>Added <a href="mailto:BIOL2210@mq.edu.au">BIOL2210@mq.edu.au</a> mailbox as contact, as directed by Sharyon O’Donnell.</td>
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