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The published on-line version of the Course Profile is the authoritative version and by the publication of the Course Profile on-line the University deems the student has been notified of and read the course requirements.

1. General Course Information

1.1 Course Details

COURSE CODE	1041SCG
COURSE TITLE	Biological Systems
ACADEMIC ORGANISATION	ESC School of Environment and Science
TRIMESTER	Trimester 1 2021
MODE	Blended
LEVEL	Undergraduate
LOCATION	Nathan, On Campus
CREDIT POINT VALUE	10

Course Description:

Biological Systems is an introductory course that provides an appreciation of the main concepts of modern biology. Students will gain an understanding of the origin, function and structure of living organisms by examining life at increasing levels of biological complexity, from the molecular and cellular level to whole organisms and ecosystems. Course content will be delivered through a combination of lectures, workshops, laboratory sessions and online material. Incompatible: 1601ENV Biological Systems; 1

Assumed Background:

Students in this course will be assumed to have fulfilled the entry requirements for Griffith Science Programs that include this as a core course.

1.2 Course Introduction

This course provides an introduction to the biology of organisms. It is a basic biology course that can be used as a foundation for those not wishing to study biology further but is essential background for students wishing to undertake further study in the biological, ecological, biomedical and biomolecular sciences. It includes an understanding of the classification of biological organisms, the underlying differences in cell structure and function of prokaryotes and eukaryotes, mechanisms of evolution, and plant and animal biology and diversity with particular emphasis on how the structure of organisms influences how they function in different environments.

Contact summary

Teaching materials are provided on the course website that can be accessed via the Learning@Griffith link on the university homepage. Students are expected to spend a total of ten hours per week on this course during the trimester.

In terms of contact with the teaching team:

- Students are encouraged to ask questions in the lectures and workshops;
- Students should contact their lab/workshop demonstrator in class, if they have a problem; and, if the problem cannot be resolved, students should email the lecturer or convenor.

Previous Student Feedback

This course in 2020 change in content, and minor modifications have been made to 1041SCG in 2021.

Student feedback indicated a high level of satisfaction with this course, with students particularly enjoying the hands-on activities in the laboratory sessions.

"Wide variety of information, topics are interesting and information covered is progressive which allows a gradual build up and layering of information. Laboratories were the best part of the subject". "I enjoyed the lectures as all of the staff were passionate about their field, this then made me become more interested in things I thought I didn't care about..."

The most difficult aspect of this course is that it covers a lot of content (in other words, it is "content heavy"). Students should be

aware of this from the start and understand that they will likely need to dedicate a significant amount of time to assimilate the material of the course.

1.3 Course Staff

Primary Convenor **Assoc Prof Deanne Skelly**

EMAIL	d.skelly@griffith.edu.au
CAMPUS	Nathan Campus
CONSULTATION	Please contact Dr Skelly via email on d.skelly@griffith.edu.au to arrange a consultation.
Lecturer Dr Shahla Hosseini Bai	
EMAIL	s.hosseini-bai@griffith.edu.au
Lecturer Dr Paul Oliver	
EMAIL	p.oliver@griffith.edu.au
CAMPUS	Nathan Campus
Lecturer Prof Helen Wallace	
EMAIL	helen.wallace@griffith.edu.au

1.4 Timetable

Timetables are available on [the Programs and Courses website](#).

NB: Details contained in this Section of the course profile and Section 4.1 Learning Activities are to be read in conjunction with the official class timetable. The published class timetable which is the authoritative source for timetabling information for all campuses can be located by clicking on the above link.

Additional Timetable Information

The course consists of lectures, tutorial, labs and workshops.

There will be **3-4h of lectures every week**. Students are very strongly encouraged to listen to lectures and engage with the lecturers. Academic data for first year courses has conclusively shown that students who attend classes score 10% higher on their assessments.

There will be a **2h of lab in weeks 2, 4, 6, 10 and 12**. Attendance to the labs is compulsory, and all labs will be assessed.

There will be a **1h workshop in weeks 1, 3, 5, 7, 9 and 11** (possibly labelled as "tutorial" on your timetable). Attendance to the tutorials is compulsory.

There will be a **1h PASS session in all weeks** of the trimester.

See the L@G course site for further details.

1.5 Lecture Capture

It is standard practice at Griffith University that lectures timetabled in lecture capture-enabled venues are recorded and made available to students on the relevant course site, in accordance with the University's [Lecture Capture Policy](#).

The lecture series delivered as part of this course will be recorded and accessible via the Learning@Griffith course site.

2. Aims, Outcomes & Graduate Attributes

2.1 Course Aims

This course provides an introduction to cell biology and biological systems, including cell structure and introductory animal and plant biology. The aim is to provide the essential understanding of cells and biological systems necessary for further study in the biological, ecological, biomedical and biomolecular sciences.

During the course, you will also learn to work with other scientists as a team in the laboratory.

2.2 Learning Outcomes

After successfully completing this course you should be able to:

- 1 Explain biological organisms at both the cellular and whole organism level.
- 2 Acquire and apply lab skills to examine the form and function of biological systems.
- 3 Analyse and communicate results from scientific methodology in a professional scientific format.
- 4 Synthesise and apply knowledge gained towards contemporary global challenges.
- 5 Develop the professional skills required for a career in science

2.3. Graduate Attributes

For further details on the Griffith Graduate please [click here](#)

Griffith University prepares influential graduates to be:

- [Knowledgeable and skilled, with critical judgement](#)
- [Effective communicators and collaborators](#)
- [Innovative, creative and entrepreneurial](#)
- [Socially responsible and engaged in their communities](#)
- [Culturally capable when working with First Australians](#)
- [Effective in culturally diverse and international environments](#)

This table demonstrates where each of the Griffith Graduate Attributes is taught, practised and assessed in this course.

For further details on the Griffith Graduate Attributes please refer to [The Griffith Graduate policy](#).

University wide attributes

GRADUATE ATTRIBUTE	TAUGHT	PRACTISED	ASSESSED
Knowledgeable and skilled, with critical judgement	•	•	•
Effective communicators and collaborators	•	•	•
Innovative, creative and entrepreneurial		•	
Socially responsible and engaged in their communities	•		
Effective in culturally diverse and international environments	•	•	

ALTC Threshold Learning Outcomes (Science) Upon completion of a Bachelor of Science, graduates will:

GRADUATE ATTRIBUTE	LEARNING OUTCOMES
1.DEMONSTRATE A COHERENT UNDERSTANDING OF SCIENCE BY:	
1.1. articulating the methods of science and explaining why current scientific knowledge is both contestable and testable by further inquiry	1, 2, 3, 5
1.2. explaining the role and relevance of science in society	1, 4, 5
2.EXHIBIT DEPTH AND BREADTH OF SCIENTIFIC KNOWLEDGE BY:	
2.1. demonstrating well-developed knowledge in at least one disciplinary area	1, 2, 3
2.2. demonstrating knowledge in at least one other disciplinary area	
3.INQUIRY & PROBLEM SOLVING SKILLS ALIGNED WITH CRITICAL ANALYSIS & SOLVING SCIENTIFIC PROBLEMS BY:	
3.1. gathering, synthesising and critically evaluating information from a range of sources	2, 3, 5
3.2. designing and planning an investigation	1, 3, 4
3.3. selecting and applying practical and/or theoretical techniques or tools in order to conduct an investigation	2, 5
3.4. collecting, accurately recording, interpreting and drawing conclusions from scientific data	2, 3, 5
4.BE EFFECTIVE COMMUNICATORS OF SCIENCE BY:	
4.1. communicating scientific results, information, or arguments, to a range of audiences, for a range of purposes, and using a variety of modes	4, 5
5.EXHIBIT PERSONAL & PROFESSIONAL RESPONSIBILITY FOR LEARNING & SCIENTIFIC WORK THROUGH:	
5.1. being independent and self-directed learners	4, 5
5.2. working effectively, responsibly and safely in an individual or team context	2, 4
5.3. demonstrating knowledge of the regulatory frameworks relevant to their disciplinary area and personally practising ethical conduct.	5

3. Learning Resources

3.1 Required Resources

Details of your Required Learning Resources are available from the [Reading List](#).

3.2 Recommended Resources

Details of your Recommended Learning Resources are available from the [Reading List](#).

3.3 University Learning Resources

The University provides many facilities and support services to assist students in their studies. Links to information about University support resources that are available to students are included below for easy reference.

[Readings](#) - New online service enabling students to access Required and Recommended Learning resources. It connects to the library catalogue to assist with quickly locating material held in Griffith libraries and enables students to manage and prioritise their readings, add personal study notes and export citations.

[Learning@Griffith](#) - there is a dedicated website for this course via the Learning@Griffith at myGriffith.

[Academic Integrity Tutorial](#) - this tutorial helps students to understand what academic integrity is and why it matters. You will be able to identify types of academic misconduct, understand what skills you will need in order to maintain academic integrity, and learn about the processes of referencing styles.

[Student Support](#) - provides a range of services to support students throughout their studies including personal support such as Counselling and Health Services; Academic support; and Financial and Welfare support.

The [Careers and Employment Team](#) provides: Career Wellbeing, Career Planning and Decision Making, Finding Jobs, Skills Identification and Development, Graduate Employment Information, LinkedIn Profile Review, Interview Preparation, Online Psychometric and Aptitude Test Preparation, International Student Support, Disability Disclosure Strategies and Higher Degree Research (HDR) Career Consultations.

[Library and Learning Services](#): Library and Learning Services provides a wide range of quality client-focused services and programs to students, researchers and staff of the University. Library and Learning Services works in collaboration with the academic community to achieve academic and research outcomes.

[Support for learning](#) - the University provides access to common use computing facilities for educational purposes.

[Code of Practice](#) - Griffith Information Technology Resources.

4. Teaching & Learning Activities

4.1 Learning Activities

Week Commencing	Activity	Learning Outcomes
8 Mar 21	Cellular and Molecular Biology (Module):	1, 2, 3, 4
22 Mar 21	Homeostasis (Module):	1, 2, 3, 4
12 Apr 21	Diversity of life and animal biology (Module):	1, 2, 3, 4
10 May 21	Plant Biology (Module):	1, 2, 3, 4
31 May 21	Global Ecology (Module):	1, 2, 3, 4

4.2 Other Teaching and Learning Activities Information

If any student has a disability and/or health condition that may impact on their ability to successfully undertake required learning activities in this course, they are encouraged to complete the Griffith University Disclosure Statement and advise their Course Convenor.

If a class is usually scheduled on a day that falls on a public holiday, or is cancelled for any reason, the content will be delivered online or integrated across other classes, as appropriate.

Students Repeating a Course: Normally, students repeating a course should not 'carry forward' marks from a previous attempt. Assessment items are usually offered to provide formative experience as well as a summative assessment. Therefore, NO MARK for any assessment item from a previous attempt will be carried forward.

During Trimester 1 there are a number of public holidays, when this happens the University can deem days. For Trimester 1, 2021 the following will apply:

Monday 5th April - Easter Monday - during mid trimester break Monday 26th April - ANZAC day

Monday 3rd May - Labour Day - no classes (classes for this Monday will be held on Tuesday 4th May, therefore Tuesday classes will not be held. This has led to the removal of laboratory classes in week 8)

For all other public holidays were a lecture or tutorial class is scheduled (or is cancelled for any unexpected reason), this class will normally not be repeated

5. Assessment Plan

5.1 Assessment Summary

This is a summary of the assessment in the course. For detailed information on each assessment, see [5.2 Assessment Detail](#) below.

ASSESSMENT TASK	DUE DATE	WEIGHTING	MARKED OUT OF	LEARNING OUTCOMES	MAXIMUM EXTENSION PERIOD
<i>Test or quiz</i> Fortnightly quiz x 6	8 Mar 21 - 4 Jun 21	18%	18 marks	1, 4	
<i>Assignment - Laboratory/</i> <i>Laboratory Report</i> In-Lab Assessment (5x)	15 Mar 21 - 4 Jun 21	15%	15 marks	2, 3, 5	
<i>Assignment - Planning</i> <i>Document</i> Employability Skills	14 Apr 21 17:00 - 26 May 21 17:00	10%	10 marks	5	
<i>Assignment - Written</i> <i>Assignment</i> Lab report #1	12 May 21 17:00 Submit via turnitin	17%	100 marks	1, 2, 4	
<i>Exam - selected and</i> <i>constructed responses</i> Exam	Examination Period	40%	100 marks	1, 4	

5.2 Assessment Detail

Title: Fortnightly quiz x 6

Type: Test or quiz

Learning Outcomes Assessed: 1, 4

Due Date:

8 Mar 21 - 4 Jun 21

Weight: 18%

Marked out of: 18

Task Description:

Quizzes must be submitted by 12pm on the Friday of each second week (ie weeks 2,4,6,8,10 and 12) where they are identified.

The quiz mark will be the best of 3 attempts.

All 6 quizzes will count towards your final mark.

Each of the 6 quizzes is worth 3%.

Quizzes will each cover 2 weeks material. For example the quiz due to be completed by 12pm Friday of week 2 (19/3/21) will cover weeks 1 and 2 of course material.

Criteria & Marking:

Test will be conducted on line.

Submission: Via the 'Assignments' tool in Learning@Griffith.

This assessment item:

- is a school based activity
- is an individual activity
- does not include a self assessment activity
- does not have a re-attempt provision

Title: In-Lab Assessment (5x)

Type: Assignment - Laboratory/Laboratory Report

Learning Outcomes Assessed: 2, 3, 5

Due Date:

15 Mar 21 - 4 Jun 21

Weight: 15%

Marked out of: 15

Task Description:

Small in-lab assessment to be **completed during all labs**. Each is worth 3%

Criteria & Marking:

Students have to complete an activity in the lab, and hand-in a small assessment at the end of the lab. **Each of the five in-lab assessments is worth 2% of your final mark.**

Submission: In Person at the School Department. Handed in at the end of the lab.

This assessment item:

- is a school based activity
- is an individual activity
- does not include a self assessment activity
- does not have a re-attempt provision

Title: Employability Skills

Type: Assignment - Planning Document

Learning Outcomes Assessed: 5

Due Date:

14 Apr 21 17:00 - 26 May 21 17:00

Weight: 10%

Marked out of: 10

Task Description:

Title: Professional Development Portfolio

Stage 1: Skills for Success - Wednesday 14 April, 2021, 5pm

Stage 2: SMART Goals and Timeline - Wednesday 26 May, 5pm

Weight: 10% Marked out of: 10

Criteria & Marking:

Task Rationale

Planning for your future career is not something you can leave until you graduate. There are many steps you can take while you are at university to have a positive impact on your professional development, and to help you achieve your short and long-term goals. In this task you will identify the skills and capabilities required for success at university and in the future workplace. You will also identify opportunities to build your professional network so you are well-positioned to secure work placements, internships, volunteer roles and jobs that may not advertised in expected or traditional ways. You will propose goals / priorities that are important for your professional development and you will propose specific actions you can take to implement your ideas.

Task Description

Stage 1: Skills for Success

Weighting: 4%, Marked out of 4

Due Date: Wednesday 14 April, 2021, 5pm

Submission: Via PebblePad workbook.

Identify the transferable skills and capabilities that are essential for success at university and in the workplace - complete the "Skills for Professionals" worksheet (1 mark maximum)

Identify the personal attributes that will contribute to your success as a Science student and to your career development - complete the "Personal Goals" worksheet. (1 mark maximum)

Write one (1) SMART Goal / Priority (and associated action steps) that align with either

o the development of your skills (as per the "Skills for Scientists" worksheet) OR

o the development of strategies for success at university (as per the "Personal Goals" worksheet).

(Minimum 120 words) (2 marks maximum)

Use the SMART goal framework (Specific, Measurable, Achievable, Relevant, Time-bound) to plan how you will implement your action steps and state what you hope to achieve. See the "SMART Goal" tab for more detail.

Stage 2: Action Plan and Timeline

Task Description

Identify your personal and professional development goals for the next four to six months. Create a Professional Development Portfolio to document opportunities you have identified and tangible actions you will take to contribute to your learning and career development goals, including opportunities to build your professional network.

Weighting: 6%

Due Date: Wednesday 26 May, 5pm

Submission: Via PebblePad workbook "Submit for Assessment" tab.

In this task you will:

Identify three (3) goals or priorities you have identified as important for your learning goals and/or career development. Ensure your goals/priorities cover a diverse range of personal and professional development activities. Focus on goals you can achieve in the next four to six months.

In this part of the task you will write three new goals (do not reuse the goal you wrote in Stage 1 of the task). You will, however, apply any feedback you received in Stage 1 to ensure you write your SMART goals in the appropriate format. (Minimum 120 words / goal)

Include at least one goal/priority (and associated action steps) that involve engagement with your industry and/or a relevant, discipline-based student association (as per the "Getting Connected" worksheet).

Justify the inclusion of each goal/priority and explain why it is important to you and what you hope to achieve.

Use the SMART goal framework (Specific, Measurable, Achievable, Relevant, Time-bound) to plan how you will implement your action steps and state what you hope to achieve. See the "SMART Goal" tab for more detail.

Provide a detailed timeline in the appropriate format to demonstrate when you plan to enact your action items, and when you plan to 'complete' them. In your timeline ensure you include rich detail about what you are actually going to do to achieve your goal. Include relevant websites where you can find out about opportunities. Include names of people you might contact and dates of specific seminars you plan to attend (if known). To upload your timeline, take a photograph or screen shot of your work (you can divide this into two images if required) and add your image(s) in the appropriate space on the "Submit for Assessment" tab. See the "Timeline Exemplar" in the "Assignment Info" tab.

Resources

The activities and resources in this workbook, and links to external support modules, will help you develop your Professional Development Portfolio (PDP). You will also complete activities within workshop classes throughout the trimester that will allow you to develop your PDP.

Your progress towards Stage 2 will be verified at the Week 11 Due Date. It is highly recommended you submit your workbook and complete the "Skills for Scientists" and "Personal Goals" worksheets by this date. You will receive feedback on your progress from the teaching team.

While in Stage 2 we will only mark the work submitted on the "Submit for Assessment" tab, experience shows that students produce better quality work (and get better marks!) if they have worked through the resources in each of the other tabs.

Submission: Via the 'Assignments' tool in Learning@Griffith.

This assessment item:

- is a school based activity
 - is an individual activity
 - does not include a self assessment activity
 - does not have a resubmission provision
-

Title: Lab report #1

Type: Assignment - Written Assignment

Learning Outcomes Assessed: 1, 2, 4

Due Date:

12 May 21 17:00 Submit via turnitin

Weight: 17%

Marked out of: 100

Task Description:

A lab report fwill include:

- Cover page
- Abstract
- Introduction
- Materials and Methods
- Results
- Discussion
- Conclusions
- References

Precise instructions on the marking scheme will be given in the lab.

Criteria & Marking:

Students have completed all required aspects of the report.

Marks will be awarded for correct labelling of graphs and figures, correct referencing, proper grammar and spelling, and logical argumentation.

A rubric detailed the mark breakdown will be uploaded on the course website, and more details will be given during the workshops, tutorials and labs.

Submission: Text Matching Tool - Turnitin.

This assessment item:

- is a school based activity
 - is an individual activity
 - does not include a self assessment activity
 - does not have a resubmission provision
-

Title: Exam

Type: Exam - selected and constructed responses

Learning Outcomes Assessed: 1, 4

Due Date:

Examination Period

Weight: 40%

Marked out of: 100

Perusal: 10 minutes

Duration: 120 minutes

Format: Closed Book, Online

Task Description:

Examination will be a mixture of multiple choice questions and short answer/labelling questions. Exam is closed book and no additional materials allowed. Scientific calculator permitted.

Criteria & Marking:

Examination will be a mixture of multiple choice questions and short answer/labelling questions.

This assessment item:

- is a centrally organised activity
 - is an individual activity
 - does not include a self assessment activity
-

5.3 Late Submission

For all non-Honours Dissertation courses: An assessment item submitted after the due date, without an approved extension, will be penalised. The standard penalty is the reduction of the mark allocated to the assessment item by 5% of the total weighted mark for the assessment item, for each working day that the item is late. A working day will be defined as Monday to Friday. Assessment items submitted more than five working days after the due date will be awarded zero marks. To understand how the mark is reduced please refer to [Assessment Procedures for Students](#).

For all Honours Dissertation courses: Enrolment in an Honours degree shall be cancelled and the candidature terminated if the candidate fails to lodge their Honours dissertation by the prescribed date including any approved extensions.

5.4 Other Assessment Information

Supplementary Assessment is available in this course in accordance with Section 8 of the University Assessment Policy. To

achieve a Pass grade for the course a pass mark for the supplementary assessment item must be achieved.

Final Grades

A student's final grade for this course will be based on the aggregation and weighting of marks across assessment, any mandatory pass components and grade cut-offs. Grade cut-offs can vary, so you will need to wait for the official release of grades to be sure of your grade for this course.

- This course is a graded course (i.e 7, 6, 5, 4, 3, 2, 1).

6. Policies & Guidelines

This section contains the details of and links to the most relevant policies and course guidelines. For further details on University Policies please visit the [Policy Library](#)

6.1 Assessment Related Policies and Guidelines

University Policies & Guidelines

The University's assessment-related policies can be found in the [Griffith Policy Library](#).

Please refer to the following specific policies:

- [Assessment Policy](#)
- [Assessment Procedure for Students](#)

6.2 Other Policies and Guidelines

University Policies and Guidelines

Students are responsible for ensuring that they have read all sections of the Course Profile for the course/s in which they are enrolled in any enrolment period. The published online version of the Course Profile is the authoritative version and by the publication of the Course Profile online, the University deems the student has been notified of and read the course requirements. Variations to the Course Profile during the trimester of offer are not permitted except in exceptional circumstances and will be advised in writing to all enrolled students and via the [Learning@Griffith](#) website. Additional information regarding the content of this course may be published on the [Learning@Griffith](#) website.

Copyright matters

Copyright applies to all teaching materials and materials generated by students which substantially relate to Griffith University courses. *Students are warned against selling Griffith University teaching materials and their student notes online through commercial websites during and after their studies.* You will almost certainly be in breach of copyright law and Griffith's IT Code of Practice if you post these materials on the internet and commercial websites. Please refer to the [Copyright Guide for Students](#) for further information.

Health and Safety

Griffith University is committed to providing a safe work and study environment. However, all students, staff and visitors have an obligation to ensure the safety of themselves and those whose safety may be affected by their actions. Staff in control of learning activities will ensure as far as reasonably practical, that those activities are safe and that all safety obligations are being met. Students are required to comply with all safety instructions and are requested to report safety concerns to the University.

General health and safety information is available on the [Health, Safety and Wellbeing](#) website.

Other Key Student-Related Policies

All University policy documents are accessible to students via the [Griffith Policy Library](#) and links to key policy documents, in addition to those listed in 6.1 above, are included below for easy reference:

- [Student Communications Policy](#)
- [Health and Safety Policy](#)
- [Student Administration Policy](#)
- [Student Charter](#)
- [Student Review and Appeals Policy](#)
- [Student Review and Appeals Procedures](#)
- [Student Complaints Policy](#)

Other Course Guidelines

It is essential that students refer to the course's Learning@Griffith site for further information about this course.