UNSW Course Outline

PHSL3221 Endocrine, Reproductive and Developmental Physiology - 2024

Published on the 03 Sep 2024

General Course Information

Course Code : PHSL3221
Year : 2024
Term : Term 3
Teaching Period : T3
Is a multi-term course? : No
Faculty : Faculty of Medicine and Health
Academic Unit : School of Biomedical Sciences
Delivery Mode : In Person
Delivery Format : Standard
Delivery Location : Kensington
Campus : Sydney
Study Level : Undergraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

This course has been developed with the aim of stimulating your interest and expanding your

knowledge in the areas of endocrinology, reproduction, fertility and fetal development. The endocrine and reproductive physiology component builds on areas covered in Physiology 1B. The study of developmental physiology examines a wide range of organ systems and endocrine functions in the fetus, newborn and pregnant woman, and in this part of the course you will draw on your knowledge of these systems and processes from the relevant parts of Physiology 1A and 1B, and also your understanding of basic anatomy and biochemistry.

Course Aims

This course aims to develop your understanding of the structure, function, control and pathophysiology of endocrine systems; the mechanisms associated with male and female reproduction and fertility and an understanding of normal fetal growth and development, post-natal adaptation and survival, and maternal physiology. As well, the course aims to develop your skills in teamwork, problem solving, communicating with peers, making presentations, independent learning, data analysis and report writing; and to stimulate an interest in and appreciation of biomedical research.

Relationship to Other Courses

Assistance with progression checking:

If you are unsure how this course fits within your program, you can seek guidance on optimising your program structure, from staff at the Nucleus Student Hub.

- Progression plans for UNSW Medicine and Health programs can be found on the UNSW Medicine & Health website.
- Progression plans for UNSW Science programs can be found on the UNSW Science website.

Course Learning Outcomes

Course Learning Outcomes
CLO1 : Describe the underlying principles related to each of the three course themes: function and control of endocrine systems; male and female reproduction and fertility; fetal growth, development and adaptation to life after birth, and apply those principles to scientific or relevant clinical scenarios.
CLO2 : Contribute effectively in a group to discuss and offer solutions to a scientific or relevant clinical scenario
CLO3 : Identify areas in your knowledge of physiology that could be improved, and carry out the self-directed learning necessary to “fill the gaps”
CLO4 : Research scientific information and communicate it to your colleagues and academic staff in written and oral formats

Course Learning Outcomes	Assessment Item
CLO1 : Describe the underlying principles related to each of the three course themes: function and control of endocrine systems; male and female reproduction and fertility; fetal growth, development and adaptation to life after birth, and apply those principles to scientific or relevant clinical scenarios.	• Problem based learning • Mid-term test • Endocrine Assignment • Final exam
CLO2 : Contribute effectively in a group to discuss and offer solutions to a scientific or relevant clinical scenario	• Problem based learning
CLO3 : Identify areas in your knowledge of physiology that could be improved, and carry out the self-directed learning necessary to “fill the gaps”	• Endocrine Assignment • Problem based learning
CLO4 : Research scientific information and communicate it to your colleagues and academic staff in written and oral formats	• Endocrine Assignment • Problem based learning

Learning and Teaching Technologies

Moodle - Learning Management System | Microsoft Teams | Echo 360

Learning and Teaching in this course

All course materials and course announcements are provided on the course learning management system, Moodle (or Open Access).

Microsoft Teams will be used for online synchronous lectures (Seminars).

By accessing and using the ICT resources provided by UNSW, you are agreeing to abide by the 'Acceptable Use of UNSW ICT Resources' policy particularly on respect for intellectual property and copyright, legal and ethical use of ICT resources and security and privacy.

Additional Course Information

The Department of Physiology is part of the School of Biomedical Science, UNSW Medicine & Health, and is located in the Wallace Wurth Building. Professor Gary Housley is Head of Department and appointments to see him may be made via email (G.Housley@unsw.edu.au).

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
Problem based learning Assessment Format: Individual	15%	Start Date: Not Applicable Due Date: Various - in weeks 2-5 (See Moodle)
Mid-term test Assessment Format: Individual	30%	Start Date: Not Applicable Due Date: 22/10/2024 02:00 PM
Endocrine Assignment Assessment Format: Individual Short Extension: Yes (2 days)	15%	Start Date: Not Applicable Due Date: 28/10/2024 09:00 AM
Final exam Assessment Format: Individual	40%	Start Date: Not Applicable Due Date: During UNSW exam period

Assessment Details

Problem based learning

Assessment Overview

Your effective participation and individual presentations in three of the four problem-based learning (PBL) classes contributes 15% to your final mark. A marking scheme is available to students and tutors provide individual feedback.

Course Learning Outcomes

- CLO1 : Describe the underlying principles related to each of the three course themes: function and control of endocrine systems; male and female reproduction and fertility; fetal growth, development and adaptation to life after birth, and apply those principles to scientific or relevant clinical scenarios.
- CLO2 : Contribute effectively in a group to discuss and offer solutions to a scientific or relevant clinical scenario
- CLO3 : Identify areas in your knowledge of physiology that could be improved, and carry out the self-directed learning necessary to “fill the gaps”
- CLO4 : Research scientific information and communicate it to your colleagues and academic staff in written and oral formats

Detailed Assessment Description

Detailed information about this assessment will be provided on the course Moodle page.

Assessment Length

Each presentation is 5 min and handout limited to 1 page of text.

Submission notes

Refer to Moodle for submission information.

Assignment submission Turnitin type

Not Applicable

Generative AI Permission Level

Simple Editing Assistance

In completing this assessment, you are permitted to use standard editing and referencing functions in the software you use to complete your assessment. These functions are described below. You must not use any functions that generate or paraphrase passages of text or other media, whether based on your own work or not.
If your Convenor has concerns that your submission contains passages of AI-generated text or media, you may be asked to account for your work. If you are unable to satisfactorily demonstrate your understanding of your submission you may be referred to UNSW Conduct & Integrity Office for investigation for academic misconduct and possible penalties.
For more information on Generative AI and permitted use please see here.

Mid-term test

Assessment Overview

This test will consist of multiple choice questions and short answer questions. It will cover the Endocrine component of the course. Online formative questions, past short answer questions and a practice exam session are provided in the weeks prior to the exam to assist your study. Following the exam, individaul mark breakdown and cohort feedback are provided.

Course Learning Outcomes

- CLO1 : Describe the underlying principles related to each of the three course themes: function and control of endocrine systems; male and female reproduction and fertility; fetal growth, development and adaptation to life after birth, and apply those principles to scientific or relevant clinical scenarios.

Detailed Assessment Description

Detailed information about this assessment will be provided on the course Moodle page.

Assessment Length

2 hours

Submission notes

Refer to Moodle for submission information

Assignment submission Turnitin type

Not Applicable

Generative AI Permission Level

No Assistance

This assessment is designed for you to complete without the use of any generative AI. You are not permitted to use any generative AI tools, software or service to search for or generate information or answers.
For more information on Generative AI and permitted use please see here.

Endocrine Assignment

Assessment Overview

This written report is based on a case study in endocrinology and contributes 15% of your final mark. A marking scheme is provided and each student is given specific written feedback.

Course Learning Outcomes

- CLO1 : Describe the underlying principles related to each of the three course themes: function and control of endocrine systems; male and female reproduction and fertility; fetal growth, development and adaptation to life after birth, and apply those principles to scientific or relevant clinical scenarios.
- CLO3 : Identify areas in your knowledge of physiology that could be improved, and carry out the self-directed learning necessary to “fill the gaps”
- CLO4 : Research scientific information and communicate it to your colleagues and academic staff in written and oral formats

Detailed Assessment Description

Detailed information about this asssessment will be provided on the course Moodle page.

Assessment Length

2000 words

Submission notes

Refer to Moodle for submission information

Assignment submission Turnitin type

This assignment is submitted through Turnitin and students can see Turnitin similarity reports.

Generative AI Permission Level

Simple Editing Assistance

In completing this assessment, you are permitted to use standard editing and referencing functions in the software you use to complete your assessment. These functions are described below. You must not use any functions that generate or paraphrase passages of text or other media, whether based on your own work or not.
If your Convenor has concerns that your submission contains passages of AI-generated text or media, you may be asked to account for your work. If you are unable to satisfactorily demonstrate your understanding of your submission you may be referred to UNSW Conduct & Integrity Office for investigation for academic misconduct and possible penalties.
For more information on Generative AI and permitted use please see here.

Final exam

Assessment Overview

This exam will consist of multiple choice questions and short answer questions. It will be held in the official examination period and assess the Reproduction, Fetal and Developmental Physiology components of the course. Online formative questions, past short answer questions and a practice exam session are provided in the weeks prior to the exam to assist your study. Following the exam, individual mark breakdown and cohort feedback are provided.

Course Learning Outcomes

- CLO1 : Describe the underlying principles related to each of the three course themes: function and control of endocrine systems; male and female reproduction and fertility; fetal growth, development and adaptation to life after birth, and apply those principles to scientific or relevant clinical scenarios.

Detailed Assessment Description

Detailed information about this assessment will be provided on the course Moodle page.

Assessment Length

2 hours

Submission notes

Refer to Moodle for submission information.

Assignment submission Turnitin type

Not Applicable

Generative AI Permission Level

No Assistance

This assessment is designed for you to complete without the use of any generative AI. You are not permitted to use any generative AI tools, software or service to search for or generate information or answers.
For more information on Generative AI and permitted use please see here.

General Assessment Information

Detailed instructions regarding assessments for this course are provided on the course Moodle page.

For student information on results, grades, and guides to assessment see: https://student.unsw.edu.au/assessment

Grading Basis

Standard

Requirements to pass course

In order to pass this course students must:

- Achieve a compoisite grade of at least 50 out of 100
- Meet any additional requirements specified in the assessment details section and on Moodle

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 9 September - 15 September	Other	Endocrine - Pre-recorded and live synchronous seminars. Content includes – Introduction to the course. Basic concepts in Endocrinology, Hormones involved in metabolism (insulin and glucagon). Problem Based Leaning session 1.1.
Week 2 : 16 September - 22 September	Other	Endocrine - Pre-recorded and live synchronous seminars. Content includes – Gut hormones, Growth, Regulation of body weight, Hypersecretion: catecholamines and serotonin. Problem Based Leaning session 1.2 and 2.1.
Week 3 : 23 September - 29 September	Other	Endocrine - Pre-recorded and live synchronous seminars. Content includes – Calcium metabolism, Renin-angiotensin system, Water Immersion, Hormones of white adipose tissue. Problem Based Leaning session 2.2 and 3.1.
Week 4 : 30 September - 6 October	Other	Endocrine/Reproduction - Pre-recorded and live synchronous seminars. Content includes – Androgens and anabolic steroids, Menopause, Puberty, Biological Sex and Variation. Problem Based Leaning session 3.2 and 4.1.
Week 5 : 7 October - 13 October	Other	Reproduction - Pre-recorded and live synchronous seminars. Content includes – Regulation of Fertility, Assisted Reproductive Technology, Sexual Reproduction. Practice exam session. Problem Based Leaning session 4.2.
Week 6 : 14 October - 20 October	Other	Flexibility week – no classes except optional Q & A
Week 7 : 21 October - 27 October	Other	Developmental Physiology - Pre-recorded and live synchronous seminars. Content includes – Introduction to Fetal Physiology, Fetal circulation, Maternal physiology, Regulation of fetal fluids. Midterm exam in laboratory slot.
Week 8 : 28 October - 3 November	Other	Developmental Physiology - Pre-recorded and live synchronous seminars. Content includes Placenta, Neonatal Intensive Care, Parturition, Virtual Neonatal Nursery visit. Laboratory session – Gestational Diabetes and Screening in Pregnancy.
Week 9 : 4 November - 10 November	Other	Developmental Physiology - Pre-recorded and live synchronous seminars. Content includes Fetal endocrinology, fetal breathing, Adaption to life after birth. Video – Ghost in your genes; Laboratory session – Two Peas in a Pod.
Week 10 : 11 November - 17 November	Other	Developmental Physiology - Pre-recorded and live synchronous seminars. Content includes Lactation, Developmental Origins of Health and Disease, Epigenetics. Laboratory session – Practice exam questions and feedback.

Attendance Requirements

Undergraduate

Students are expected to attend all scheduled teaching activities, including laboratory and tutorial classes. Some courses have specific attendance requirements, and an Unsatisfactory Fail (UF) may be recorded as the final grade for the course if they fail to meet the requirements, as specified in the course and assessment information provided on the course Moodle page.

Where a student is unable to attend, they are advised to inform the course convenor, according to the instructions outlined on your course Moodle page.

Postgraduate

It is highly recommended that students attend and participate in all scheduled activities, whether in-person or online, and review class recordings for comprehensive learning. See: https://

www.student.unsw.edu.au/attendance

General Schedule Information

The times and locations of classes can be found on myUNSW under Class Timetable.

The expected engagement for all UNSW 6UOC courses is 150 hours per term. This includes lectures, tutorials, readings, and completion of assessments and exam preparation (if relevant).

Course Resources

Prescribed Resources

Learning resources for this course consist of the following and are available on Moodle - lecture slides, lecture recordings, course related materials, supplementary articles.

There are no prescribed texts for this course. '*Ganong's Review of Medical Physiology*' provides a very good coverage for the endocrine component of the course, while Harding & Bocking '*Fetal Growth and Development*' is an excellent reference for developmental physiology. Blackburn's *Maternal, Fetal & Neonatal Physiology*' is useful for the reproduction and developmental components of the course. These resources are held in print in the UNSW library or can be accessed online through the UNSW library catalogue or via the course Leganto page.

Recommended Resources

Recommended resources for this course are provided on the course Moodle page. They can be accessed online through the UNSW library catalogue or via the course Leganto page.

Additional Costs

There are no additional costs associated with this course.

Course Evaluation and Development

Student feedback is taken seriously, and continual improvements are made to the course based, in part, on such feedback.

We use student feedback from myExperience surveys to develop and make improvements to the course each year. We do this by identifying areas of the course that require development from both the rating responses and written comments. Please spare a few minutes to complete the myExperience surveys for this course posted at the top of the Moodle page at the end of term.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Karen Gibson		Level 3 North West, Wallace Wurth Building, Room 315.	9065 5166	By appointment, requests via email.	Yes	Yes
	Vita Birzniece		Level 3 North West, Wallace Wurth Building, Room 315.	9065 1628	By appointment, requests via email.	No	No

Other Useful Information

Academic Information

As a student of UNSW Medicine & Health you are expected to familiarise yourself with the contents of this course outline and the UNSW Student Code and policies and procedures related to your studies.

Student Code of Conduct

Throughout your time studying at UNSW Medicine & Health, you share a responsibility with us for maintaining a safe, harmonious and tolerant University environment. This includes within the courses you undertake during your degree and your interactions with the UNSW community, both on campus and online.

The UNSW Student Code of Conduct website provides a framework for the standard of conduct expected of UNSW students with respect to both academic integrity and your responsibility as a UNSW citizen.

Where the University believes a student may have breached the code, the University may take disciplinary action in accordance with the Student Misconduct Procedure.

The Student Conduct and Integrity Office provides further resources to assist you to understand your conduct obligations as a student at UNSW.

Academic Honesty and Plagarism

Academic integrity

UNSW has an ongoing commitment to fostering a culture of learning informed by academic integrity. All UNSW staff and students have a responsibility to adhere to the principle of

academic integrity, and ethical scholarship of learning is fundamental to your success at UNSW Medicine & Health.

Plagiarism, contract cheating, and inappropriate use of generative AI undermine academic integrity and are not tolerated at UNSW. For more information see the Academic Integrity and Plagiarism toolkit.

In addition to the information you are required to review in your ELISE training, UNSW Medicine & Health strongly recommends that you complete the Working with Academic Integrity module before submitting your first assessment task.

Referencing

Referencing is a way of acknowledging the sources of information that you use to research your assignments. Preferred referencing styles vary among UNSW Medicine & Health disciplines, so check your course Learning Management System (e.g. Moodle or Open Learning) page for information on preferred referencing styles.

For further information on referencing support and styles, see the Current Student Referencing page.

Academic misconduct and plagiarism

At UNSW, academic misconduct is managed in accordance with the Student Misconduct Procedure. Allegations of plagiarism are generally handled according to the UNSW Plagiarism Management Procedure. Plagiarism is defined in the UNSW Plagiarism Policy and is not tolerated at UNSW.

Use of Generative AI and other tools in your assessment

UNSW has provided guiding statements for the use of Generative AI in assessments. This will differ, depending on the individual assessment task, your course requirements, and the course stage within your program.

Your course convenor will outline if and how you can use Generative AI in each of your assessment tasks. Inappropriate use of generative AI is considered academic misconduct.

Options for the use of generative AI include: (1) no assistance (for invigilated assessments); (2) simple editing assistance; (3) drafting assistance; and (4) full assistance with attribution; and (5)

Generative AI software-based assessments. See your individual assessment descriptions for the level of permitted use of generative AI for each task and see your course Moodle (or Open Learning) page for the full instructions on permitted use of generative AI in your assessment tasks for this course.

Instructions may include a requirement to submit the original generative AI responses, or drafts of your original work, or provide on request.

Submission of Assessment Tasks

Short extensions and special consideration

Short extension

UNSW has a short extension procedure for submission of assessment tasks. Not all tasks are eligible, and eligible tasks have a predetermined extension length. UNSW Medicine and Health have set School-level extension lengths for eligible assessment tasks. See your course assessment descriptions for more information.

Students must check the availability of a short extension in the individual assessment task information for their courses.

Short extensions do not require supporting documentation. They must be submitted through Special Consideration before the assessment task deadline. No late applications will be accepted.

Late penalties apply to submission of assessment tasks without approved extension.

Special consideration

In cases where illness, misadventure or other circumstances beyond your control will prevent you from submitting your assessment by the due date and you require an extension, you need to formally apply for Special Consideration through myUNSW.

UNSW has a **Fit to Sit/Submit rule**, which means that by sitting or submitting an assessment on the scheduled assessment date, you are declaring that you are fit to do so and cannot later apply for Special Consideration. Examinations include centrally timetabled examinations and scheduled, timed examinations and tests managed by your School.

Important information relating to Short Extension and Special Consideration is available here, including eligibility for Special Consideration, circumstances where students with Equitable Learning Plans can apply for Short Extensions and Special Consideration, and the appeals process.

Examinations

Information about the conduct of examinations in your course is provided on your course Moodle page.

Timed online assessment tasks

If you experience a technical or connection problem during a timed online assessment, such as a timed quiz, you can apply for Special Consideration. To be eligible to apply you need to contact the Course Convenor and advise them of the issue immediately. You will need to submit an application for Special Consideration immediately, and upload screenshots, error messages or other evidence of the technical issue as supporting documentation. Additional information can be found on: https://student.unsw.edu.au/special-consideration

Other assessment tasks

Late submission of assessment tasks

UNSW has standard late submission penalties as outlined in the UNSW Assessment Implementation Procedure, with no permitted variation. All late assignments (unless extension or exemption previously agreed) will be penalised by 5% of the maximum mark per calendar day (including Saturday, Sunday and public holidays).

Late submissions penalties are capped at five calendar days (120 hours). This means that a student is not permitted to submit an assessment more than 5 calendar days (120 hours) after the due date for that assessment (unless extension or exemption previously agreed).

Failure to complete an assessment task

You are expected to complete all assessment tasks for your courses. In some courses, there will be a minimum pass mark required on a specific assessment task (a “hurdle task”) due to the need to assure clinical competency.

Where a hurdle task is applicable, additional information is provided in the assessment

information on your course Moodle page.

Feedback on assessments

Feedback on your performance in assessment tasks will be provided to you in a timely manner. For assessment tasks completed within the teaching period of a course, other than a final assessment, feedback will be provided within 10 working days of submission, under normal circumstances.

Feedback on continuous assessment tasks (e.g. laboratory and studio-based, workplace-based, weekly quizzes) will be provided prior to the midpoint of the course.

Any variation from the above information that is specific to an assessment task will be clearly indicated in the course and assessment information provided to you on your course Moodle (or Open Learning) page.

Faculty-specific Information

Additional support for students

The university offers a wide range of support services that are available for students. Here are some links for you to explore.

- The Current Students Gateway: https://student.unsw.edu.au
- Academic Skills and Support: https://student.unsw.edu.au/academic-skills
- Student support: https://www.student.unsw.edu.au/support
- Student Wellbeing, Health and Safety: https://student.unsw.edu.au/wellbeing

Mind Smart Guides are a series of mental health self-help resources designed to give you the psychological flexibility, resilience and self-management skills you need to thrive at university and at work.

- Mind Smart Guides: https://student.unsw.edu.au/mindsmart
- Equitable Learning Services: https://student.unsw.edu.au/els

- Guide to studying online: https://www.student.unsw.edu.au/online-study

Most courses in UNSW Medicine & Health use Moodle as your Learning Management System. Guidance for using UNSW Moodle can be found on the Current Student page. Difficulties with Moodle should be logged with the IT Service Centre.

- Moodle Support: https://student.unsw.edu.au/moodle-support

The IT Service Desk is your central point of contact for assistance and support with remote and on-campus study.

- UNSW IT Service Centre: https://www.myit.unsw.edu.au/services/students

Course evaluation and development

At UNSW Medicine & Health, students take an active role in designing their courses and their overall student experience. We regularly seek feedback from students, and continuous improvements are made based on your input. Towards the end of the term, you will be asked to participate in the myExperience survey, which serves as a source of evaluative feedback from students. Your input to this quality enhancement process is valuable in helping us meet your learning needs and deliver an effective and enriching learning experience. Student responses are carefully considered, and the action taken to enhance educational quality is documented in the myFeedback Matters section of your Moodle (or Open Learning) course page.

School-specific Information

Laboratory or practical class safety.

For courses where there is a laboratory or practical-based component, students are required to wear the specified personal protective equipment (e.g., laboratory coat, covered shoes, safety glasses) indicated in the associated student risk assessments. The student risk assessments will be provided on the course Moodle page and must be read and acknowledged prior to the class.

Master of Science in Health Data Science courses

Courses in the Master of Science in Health Data Science are hosted through Open Learning.

Additional resources are available on the Health Data Science Student Hub.

School Contact Information

School guidelines on contacting staff:

Course questions

All questions related to course content should be posted on Moodle (or Open Learning) or as directed by your Course Convenor.

In cases where email communication with course convenors is necessary, we kindly request the following:

- Use your official email address for any correspondence with teaching staff.
- We expect a high standard of communication. All communication should avoid using short-hand or texting language.
- Include your full name, student ID, and your course code and name in all communication.

Our course convenors are expected to respond to emails during standard working hours of Monday to Friday, 9am-5pm.

Administrative questions

If you have an administrative question about your program of study at the School please submit your enquiry online at UNSW Ask Us.

Complaints and appeals

Student complaints and appeals: https://student.unsw.edu.au/complaints

If you have any grievances about your studies, we invite you to address these initially to the Course Convenor. If the response does not meet your expectations, you may then contact:

School Grievance Officer, Prof Nick Di Girolamo (n.digirolamo@unsw.edu.au)

Master of Science in Health Data Science programs: School Grievance Officer, Dr Sanja Lujic (s.lujic@unsw.edu.au)