COURSE OUTLINE

HLT221 Human Pathophysiology

School: School of Health - Biomedicine

2026 | Trimester 1

UniSC Sunshine Coast	BLENDED LEARNING	Most of your course is on campus but you may be able to do some components of this course online.

Please go to usc.edu.au for up to date information on the teaching sessions and campuses where this course is usually offered.

1. What is this course about?

1.1. Description

This course further develops the introductory knowledge you have gained in physiology, to develop an understanding of disease and dysfunction. Cellular adaptation and injury will be explored and expanded to investigate major disorders associated with the organ systems. This course focuses on exploring the major causes and clinical manifestations of disease and the use of diagnostic information to learn about and evaluate the disease process. It develops basic communication skills applicable to programs such as Medical Laboratory Science, Paramedic Science and Clinical Exercise Physiology.

1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
Learning materials – Pre-recorded e-Modules, H5P-embedded MCQ questions to check progress against learning outcomes, H5P-embedded drag-and-drop exercises to support practical classes	2hrs	Week 1	12 times
Tutorial/Workshop 1 – e-Lectorial (online via Zoom)	1hr	Week 1	12 times
Tutorial/Workshop 2 – On campus	2hrs	Week 1	12 times

1.3. Course Topics

- Basic pathophysiology of diseased states.
- Major diseases affecting the organ systems including: nervous, cardiovascular, reproductive, respiratory, immune, digestive, endocrine and renal.
- Introduction to diagnostic testing and management of diseased states.

2. What level is this course?

200 Level (Developing)

Building on and expanding the scope of introductory knowledge and skills, developing breadth or depth and applying knowledge and skills in a new context. May require pre-requisites where discipline specific introductory knowledge or skills is necessary. Normally, undertaken in the second or third full-time year of an undergraduate programs.

3. What is the unit value of this course?

12 units

4. How does this course contribute to my learning?

COURSE LEARNING OUTCOMES On successful completion of this course, you should be able to...	GRADUATE QUALITIES MAPPING Completing these tasks successfully will contribute to you becoming...	PROFESSIONAL STANDARD MAPPING * Competencies from multiple Professional Bodies (see below) *
1 Describe, explain and clearly communicate knowledge of disease and dysfunction from cellular to organ system levels.	Knowledgeable Empowered	2.1.1, 2.2.1, 2.2.2, 3.3.1, 6.2.4, 7.2.2, 7.3.2, 9.1.1, 10.4.2
2 To understand the use of common diagnostic tests in assessing health and disease.	Knowledgeable Engaged	1.6.6, 1.6.7, 1.2, 2.1.1, 2.2.1, 2.2.4, 2.3, 3.3.1, 6.2.4, 10.4.2, 10.4.3
3 Display knowledge of pathological processes involved in disease and dysfunction.	Knowledgeable Empowered	2.1.1, 2.1.2, 2.2.1, 2.2.4, 6.2.4, 9.1.1, 10.4.2
4 Critically analyse and solve pathophysiology problems by collecting, accurately recording, interpreting clinical results, and drawing conclusions.	Knowledgeable Creative and critical thinker	1.1.2, 2.1.1, 2.1.2, 2.2.1, 2.2.4, 3.3.1, 3.3.2, 6.2.4, 10.1.5, 10.3.2, 10.4.2

* Competencies by Professional Body

CODE	COMPETENCY
AUSTRALIAN INSTITUTE OF MEDICAL AND CLINICAL SCIENTISTS	
1.6.6	Read and validate results - Observation based testing: Available clinical information is reviewed.
1.6.7	Read and validate results - Observation based testing: Critical observations are made and recorded.
1.1.2	Ensure the appropriateness of sample collection procedures: Identification of patient and demographic information is established.
1.2	Collection, preparation and analysis of clinical material: Ensure the appropriateness of specimen reception procedures
2.1.1	Assess validity of data/results against possible range of outcomes: Initial observation and limited interpretation for significance of the raw data/results is undertaken.
2.1.2	Assess validity of data/results against possible range of outcomes: Implausible results, results inconsistent with clinical information or expected outcomes based on other test results or those outside defined criteria are investigated further using defined troubleshooting strategies.
2.3	Correlation and validation of results of investigations using knowledge of method(s) including analytical principles and clinical information: Make decisions about reporting results, repeating procedures, consulting senior staff and carrying out further tests within established guidelines
3.3.1	Ensure that results with important diagnostic or treatment implications are communicated as per established protocols: Significant results, as defined by the laboratory, are identified
3.3.2	Ensure that results with important diagnostic or treatment implications are communicated as per established protocols: Results are interpreted in the light of clinical information provided and knowledge of the test(s) and limitations.
6.2.4	Maintain and update scientific/technical knowledge and skills: Opportunities to enhance learning from investigation of unusual clinical cases and/or results are pursued.
7.2.2	Makes independent, professional judgements: Implications associated with various outcomes of decision-making are recognised and understood.
7.3.2	Demonstrates knowledge of contemporary ethical issues impinging on Medical Science: Rights of individuals/groups are recognised and protected.
9.1.1	Research, prepare and deliver appropriate presentations: Educational topics are researched, prepared and presented to health workers and others.

CODE	COMPETENCY
10.4.2	Prepare and deliver report: Preparation of verbal and/or written reports or article (including for publication) is undertaken.
10.4.3	Prepare and deliver report: Report is presented for peer review.
10.1.5	Contribute to planning and design of research and development projects: Relevant information is accessed online, from libraries and other sources.
10.3.2	Evaluate results and the need for further experimental work: Contributions are made to the interpretation of results and conclusions.
EXERCISE AND SPORTS SCIENCE AUSTRALIA	
2.2.1	Integrate knowledge of anatomy, physiology, pathophysiology, and other determinants of health and function and apply these to inform safe and effective movement, physical activity, and exercise-based interventions for individuals and population groups throughout all stages of their life.
2.2.2	Examine principles of biopsychosocial care, value-based care, person-centred care and social and cultural determinants of health and apply this to promote health and well-being for individual clients and population groups.
2.2.4	Evaluate the effect of commonly prescribed medications, diagnostic procedures, medical, surgical, and other interventions on both resting and exercise-related physiological responses across the full health spectrum.

5. Am I eligible to enrol in this course?

Refer to the UniSC Glossary of terms for definitions of "pre-requisites, co-requisites and anti-requisites".

5.1. Pre-requisites

LFS112 or HLT100 and enrolled in Program SC211, SC304, SC367, SC391, SC392, SC394, SC395, SC346, SC306, UB001

5.2. Co-requisites

Not applicable

5.3. Anti-requisites

LFS303 or NUR221 or PAR221

5.4. Specific assumed prior knowledge and skills (where applicable)

Students will be able to demonstrate understanding in human physiology as evidenced through the successful completion of pre-requisite courses or equivalent credit courses

6. How am I going to be assessed?

6.1. Grading Scale

Standard Grading (GRD)

High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL).

6.2. Details of early feedback on progress

Early feedback will be provided through formative quizzes available in Canvas. Additional formative assessment activities (exemplar multiple choice questions and/or short answer questions) will also be completed during weekly e-Lectorials and/or Workshops.

6.3. Assessment tasks

DELIVERY MODE	TASK NO.	ASSESSMENT PRODUCT	INDIVIDUAL OR GROUP	WEIGHTING %	WHAT IS THE DURATION / LENGTH?	WHEN SHOULD I SUBMIT?	WHERE SHOULD I SUBMIT IT?
All	1a	Written Piece	Individual	5%	500 words	Week 3	Online Assignment Submission with plagiarism check
All	1b	Oral and Written Piece	Individual	25%	6-minute MP4 video and an ~800 word script	Week 11	Online Assignment Submission with plagiarism check
All	2	Examination - not Centrally Scheduled	Individual	30%	90 minutes	Week 6	In Class
All	3	Examination - Centrally Scheduled	Individual	40%	120 minutes	Exam Period	Exam Venue

All - Assessment Task 1a: Topic Proposal

GOAL:	This task is designed to encourage students to independently select and justify a pathophysiology topic (from the provided topic list available on Canvas) relevant to their professional discipline. This task is designed to develop early research, critical thinking, and planning skills in preparation for your Task 1b submission.
PRODUCT:	Written Piece
FORMAT:	Online via Canvas. Please refer to the course Canvas site for further details.
CRITERIA:	

No.		Learning Outcome assessed
1	Demonstration of knowledge and understanding of pathophysiological processes and diagnostic tests	1 2 3
2	Ability to critically analyse and solve pathophysiological problems.	4
3	Understanding of correct pathophysiology terminology	1 2 3 4

GENERIC SKILLS:	Communication, Organisation, Information literacy

All - Assessment Task 1b: Narrated Powerpoint

GOAL:	This task builds on your Topic Proposal (Task 1a) and develops your ability to communicate complex pathophysiological concepts clearly and professionally. You will create a narrated PowerPoint presentation explaining the pathophysiology of your chosen topic and its relevance to your professional discipline.
PRODUCT:	Oral and Written Piece
FORMAT:	A 6-minute narrated PowerPoint presentation saved as an MP4 file, including clear audio and video of the student presenting, with an accompanying written script including in-text citations and a full Harvard-style reference list. Please refer to the course Canvas site for further details.
CRITERIA:	

No.		Learning Outcome assessed
1	Demonstration of knowledge and understanding of pathophysiological processes and diagnostic tests	1 2 3
2	Ability to critically analyse and solve pathophysiological problems.	4
3	Understanding of correct pathophysiology terminology	1 2 3 4

GENERIC SKILLS:	Communication, Problem solving, Organisation, Applying technologies, Information literacy

All - Assessment Task 2: Mid-trimester Exam

GOAL:	This examination is a check-point where you can demonstrate your knowledge and understanding of pathophysiological processes, diagnostic tests and to practice the use of key pathophysiology terminology acquired to date.
PRODUCT:	Examination - not Centrally Scheduled
FORMAT:	An in-person, invigilated exam based on all course learning materials from Week 1 to 5. Please refer to the course Canvas site for further details.
CRITERIA:	

No.		Learning Outcome assessed
1	Demonstration of knowledge and understanding of cellular physiology, pathophysiological processes and diagnostic tests.	1 2 3
2	Ability to utilise information from e-Lectorials, Workshops and practicals to critically analyse and solve pathophysiological problems	4
3	Use of correct pathophysiology terminology	1 2 3

GENERIC SKILLS:	Communication, Problem solving, Organisation, Applying technologies, Information literacy

All - Assessment Task 3: End-of-Trimester Exam

GOAL:	This examination is a comprehensive end-of-trimester exam based on all course learning materials from Week 1 to 12, where you can demonstrate the theoretical and practical applications of pathophysiology that you have mastered to date.
PRODUCT:	Examination - Centrally Scheduled
FORMAT:	An in-person, invigilated exam based on all course learning materials from Week 1 to 12. Please refer to the course Canvas site for further details.
CRITERIA:	

No.		Learning Outcome assessed
1	Demonstration of knowledge and understanding of pathophysiological processes and diagnostic tests	1 2 3
2	Application of knowledge from e-Lectorials, e-Workshops and laboratory classes to pathophysiological problems	4
3	Clear communication of knowledge and correct use of pathophysiology terminology	1 2 3 4

GENERIC SKILLS:	Communication, Problem solving, Organisation, Applying technologies, Information literacy

7. Directed study hours

A 12-unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Student workload is calculated at 12.5 learning hours per one unit.

7.1. Schedule

PERIOD AND TOPIC	ACTIVITIES
Week 1: Introduction to pathophysiology and cellular adaptation	e-Module, e-Lectorial, Workshop
Week 2: Cellular injury and Neoplasia	e-Module, e-Lectorial, Workshop
Week 3: Endocrine disorders	e-Module, e-Lectorial, Workshop
Week 4: Renal and electrolyte disorders	e-Module, e-Lectorial, Workshop
Week 5: Inflammation and immunological disorders	e-Module, e-Lectorial, Workshop
Week 6: Haematological disorders	e-Module, e-Lectorial, Workshop
Week 7: Disorders of the special senses and reproductive disorders	e-Module, e-Lectorial, Workshop
Week 8: Digestive and hepatic disorders	e-Module, e-Lectorial, Workshop
Week 9: Vascular disease and hypertension	e-Module, e-Lectorial, Workshop
Week 10: Cardiac disease	e-Module, e-Lectorial, Workshop
Week 11: Pain and neurological disorders	e-Module, e-Lectorial, Workshop
Week 12: Respiratory disorders	e-Module, e-Lectorial, Workshop

8. What resources do I need to undertake this course?

Please note: Course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Canvas site– Please log in as soon as possible.

8.1. Prescribed text(s) or course reader

Please note that you need to have regular access to the resource(s) listed below. Resources may be required or recommended.

REQUIRED?	AUTHOR	YEAR	TITLE	EDITION	PUBLISHER
Required	Judy Craft, Christopher Gordon et al	2022	Understanding Pathophysiology Australia and New Zealand Edition	4th edition	Elsevier

8.2. Specific requirements

For UB001 Bachelor of Medical Laboratory Science (Pathology) to meet AIMS accreditation requirements all final theory assessments will be invigilated.

9. How are risks managed in this course?

Risk assessments have been performed for all laboratory classes and a moderate level of health and safety risk exists. Moderate risks are those associated with laboratory work such as working with chemicals and hazardous substances. You will be required to undertake laboratory induction training and it is also your responsibility to review course material, search online, discuss with lecturers and peers and understand the health and safety risks associated with your specific course of study and to familiarise yourself with the University's general health and safety principles by reviewing the online induction training for students, and following the instructions of the University staff

10. What administrative information is relevant to this course?

10.1. Assessment: Academic Integrity

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Canvas, are electronically checked through Turnitin. This software allows for text comparisons to be made between your submitted assessment item and all other work to which Turnitin has access.

10.2. Assessment: Additional Requirements

Eligibility for Supplementary Assessment

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:
(a) The final mark is in the percentage range 47% to 49.4%; and
(b) The course is graded using the Standard Grading scale

10.3. Assessment: Submission penalties

Late submissions may be penalised up to and including the following maximum percentage of the assessment task's identified value, with weekdays and weekends included in the calculation of days late:
(a) One day: deduct 5%;
(b) Two days: deduct 10%;
(c) Three days: deduct 20%;
(d) Four days: deduct 40%;
(e) Five days: deduct 60%;
(f) Six days: deduct 80%;
(g) Seven days: A result of zero is awarded for the assessment task.

The following penalties will apply for a late submission for an online examination:
Less than 15 minutes: No penalty
From 15 minutes to 30 minutes: 20% penalty
More than 30 minutes: 100% penalty

10.4. SafeUniSC

UniSC is committed to a culture of respect and providing a safe and supportive environment for all members of our community. For immediate assistance on campus contact SafeUniSC by phone: 07 5430 1168 or using the SafeZone app. For general enquires contact the SafeUniSC team by phone 07 5456 3864 or email safe@usc.edu.au.

The SafeUniSC Specialist Service is a Student Wellbeing service that provides free and confidential support to students who may have experienced or observed behaviour that could cause fear, offence or trauma. To contact the service call 07 5430 1226 or email studentwellbeing@usc.edu.au.

10.5. Study help

For help with course-specific advice, for example what information to include in your assessment, you should first contact your tutor, then your course coordinator, if needed.

If you require additional assistance, the Learning Advisers are trained professionals who are ready to help you develop a wide range of academic skills. Visit the Learning Advisers web page for more information, or contact Student Central for further assistance: +61 7 5430 2890 or studentcentral@usc.edu.au.

10.6. Wellbeing Services

Student Wellbeing provide free and confidential counselling on a wide range of personal, academic, social and psychological matters, to foster positive mental health and wellbeing for your academic success.

To book a confidential appointment go to Student Hub, email studentwellbeing@usc.edu.au or call 07 5430 1226.

10.7. AccessAbility Services

Ability Advisers ensure equal access to all aspects of university life. If your studies are affected by a disability, learning disorder mental health issue, injury or illness, or you are a primary carer for someone with a disability or who is considered frail and aged, AccessAbility Services can provide access to appropriate reasonable adjustments and practical advice about the support and facilities available to you throughout the University.

To book a confidential appointment go to Student Hub, email AccessAbility@usc.edu.au or call 07 5430 2890.

10.8. Links to relevant University policy and procedures

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- Review of Assessment and Final Grades
- Supplementary Assessment
- Central Examinations
- Deferred Examinations
- Student Conduct
- Students with a Disability

For more information, visit https://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching

10.9. Student Charter

UniSC is committed to excellence in teaching, research and engagement in an environment that is inclusive, inspiring, safe and respectful. The Student Charter sets out what students can expect from the University, and what in turn is expected of students, to achieve these outcomes.

10.10. General Enquiries

In person:

- **UniSC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **UniSC Moreton Bay** - Service Centre, Ground Floor, Foundation Building, Gympie Road, Petrie
- **UniSC SouthBank** - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- **UniSC Gympie** - Student Central, 71 Cartwright Road, Gympie
- **UniSC Fraser Coast** - Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- **UniSC Caboolture** - Student Central, Level 1 Building J, Cnr Manley and Tallon Street, Caboolture

Tel: +61 7 5430 2890

Email: studentcentral@usc.edu.au