COURSE OUTLINE

# LFS112 Human Physiology

**School:** School of Health - Biomedicine

2023 | Semester 2

UniSC Sunshine Coast
UniSC Moreton Bay

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

Human Physiology covers the normal physiology of the human body. It includes topics on metabolism, digestion, osmoregulation, excretion, respiration, circulation, muscles, neurophysiology, sense organs, immunology, endocrinology and reproduction. Emphasis in the course will be on normal structure and function of the human body and the approach will be to develop an understanding of the integrative nature of physiological systems.

### 1.2. How will this course be delivered?

| ACTIVITY | HOURS | BEGINNING WEEK | FREQUENCY |
|---|---|---|---|
| **BLENDED LEARNING** | | | |
| **Learning materials** – Self-directed eModule completion | 2hrs | Week 1 | 12 times |
| **Tutorial/Workshop 1** – Online Tutorial | 2hrs | Week 1 | 13 times |
| **Tutorial/Workshop 2** – On campus workshop - Weeks 1, 3, 5, 7, 9, 11 | 2hrs | Week 1 | 6 times |
| **Laboratory 1** – On campus laboratories - Weeks 2, 4, 6, 8, 10, 12 | 2hrs | Week 2 | 6 times |

### 1.3. Course Topics

- Thermoregulation and the Integumentary system
- Neurophysiology
- Muscle physiology
- Endocrine system
- Cellular Metabolism
- Blood physiology and the Immune System
- Digestive physiology
- Cardiac and Vascular physiology
- Renal physiology
- Respiratory physiology
- Reproductive physiology
- Sensory physiology

## 2. What level is this course?

100 Level (Introductory)

Engaging with discipline knowledge and skills at foundational level, broad application of knowledge and skills in familiar contexts and with support. Limited or no prerequisites. Normally, associated with the first full-time study year of an undergraduate program.

## 3. What is the unit value of this course?

12 units

## 4. How does this course contribute to my learning?

| COURSE LEARNING OUTCOMES<br>On successful completion of this course, you should be able to... | | GRADUATE QUALITIES<br>Completing these tasks successfully will contribute to you becoming... |
|---|---|---|
| 1 | Describe and apply theory to explain the physiology of:individual systems and/oran integrated system response. | Knowledgeable<br>Creative and critical thinker |
| 2 | Demonstrate knowledge of practical procedures in physiology, including presentation and interpretation of data. | Knowledgeable<br>Empowered |
| 3 | Apply human physiology theory, knowledge and applications. | Knowledgeable<br>Creative and critical thinker |

## 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

Not applicable

### 5.2. Co-requisites

Not applicable

### 5.3. Anti-requisites

LFS201 or LFS202 or LFS203

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

An understanding of: cell biology including structure and function of cell membranes and cellular transport; basic anatomy of human tissues, organs and systems; basic chemistry of molecules important in biological systems. Understanding of principles of data presentation and interpretation. Therefore, it is recommended that you successfully complete courses in cell biology or introduction to bioscience.

## 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

Formative feedback will be provided throughout the course. This involves provision of:
Model answers provided for workshop questions.
Analysis and discussion of data with tutors in the e-workshops.
Multiple attempts for online quizzes.
Revision questions that students can discuss with academic staff.

## 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 | Portfolio | Individual | 10% | approximately 1 - 2 hours weekly | Refer to Format | Online Publisher Assessment |
| All | 1b | Portfolio | Individual | 30% | Approximately 30 min each | Refer to Format | Online Test (Quiz) |
| All | 2 | Examination - not Centrally Scheduled | Individual | 20% | 60 min | Week 6 | Online Test (Quiz) |
| All | 3 | Examination - Centrally Scheduled | Individual | 40% | 120 min | Exam Period | Exam Venue |

**All - Assessment Task 1a:** Portfolio: Preparation and Participation

| | |
|---|---|
| **GOAL:** | To provide ongoing opportunities to practice and apply the principles of the theoretical content covered in eModules, online and on-campus classes which will facilitate and consolidate learning. |
| **PRODUCT:** | Portfolio |
| **FORMAT:** | Weeks 3 - 12<br>This task requires the completion of the eModules for each week and provides you with the opportunity to develop your understanding of the theoretical components of the course and receive timely feedback on your learning. You are able to attempt the eModule multiple times and are required to take a screenshot of your completion certificate. Further information is available on Canvas. The questions and activities are associated with each theory topic and are completed weekly from Week 3-12 (1% per week = 10% of final grade) and are submitted at the end of Week 12. Weeks 1 and 2 do not contribute to your grade and are an opportunity to receive formative feedback. |
| **CRITERIA:** | **No.** — **Learning Outcome assessed**<br>1 — Level of successful completion of e-workshop exercises — 1 3<br>2 — Completion of pre- and/or post-class activities associated with eModules and online/on-campus classes — 1 3<br>3 — Active participation in workshops — 3<br>4 — Correct responses to questions in the quizzes — 1 2 3<br>5 — Accurate interpretation of physiological data — 2 3 |
| **GENERIC SKILLS:** | Problem solving, Organisation, Applying technologies, Information literacy |

**All - Assessment Task 1b:** Portfolio: Laboratory and Practical Skills Assessment

| | |
|---|---|
| **GOAL:** | To provide ongoing opportunities to practice and apply the principles of the theoretical and practical content covered in eModules, Laboratories, Workshops and Seminars which will facilitate and consolidate learning. |
| **PRODUCT:** | Portfolio |
| **FORMAT:** | Submit: Weeks 3, 5, 9 & 13<br>The online quizzes will assist in consolidating skills related to creating and interpreting graphs, calculations, data interpretation, and the comprehension and application of physiology knowledge. Each quiz will cover topics covered in laboratories, workshops, lectorials and seminars and will require synthesis and application of knowledge. Sub-tasks will be scheduled in Weeks 3, 5, 9 and 13 and further information will be available on Canvas. Quizzes will be open for 5 days (Monday 8am-Friday 5pm of the due week) and questions will be drawn from a large database of questions so that no two quizzes will be the same. NOTE: Following the closing of the quiz at the end of the due week, there will be NO OPPORTUNITY FOR LATE SUBMISSION. An extension will require an AAE and supporting documentation, and may take an alternative format. |
| **CRITERIA:** | |

| No. | | Learning Outcome assessed |
|---|---|---|
| 1 | Level of successful completion of e-workshop exercises | 2 |
| 2 | Completion of pre- and/or post-class activities associated with eModules, laboratories and workshops | 2 3 |
| 3 | Active participation in laboratories and workshops | 1 2 3 |
| 4 | Correct responses to questions in the quizzes | 2 3 |
| 5 | Accurate interpretation of physiological data | 2 3 |
| 6 | Quality and clarity of written work | 1 |

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| **GENERIC SKILLS:** | Problem solving, Organisation, Information literacy |

**All - Assessment Task 2:** Mid-semester examination

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|---|---|
| **GOAL:** | You will demonstrate your knowledge and understanding of the theoretical and practical components of the course. |
| **PRODUCT:** | Examination - not Centrally Scheduled |
| **FORMAT:** | 60 minute online examination consisting of multiple choice questions and/or short answer questions. This is an open-book knowledge-recall examination delivered via Canvas. The exam will be open for 5 days (Monday 8am-Friday 5pm of Week 6), however, once you start the exam, you will have 60 minutes to complete it, and only have one attempt. Questions will be based on the content covered in Weeks 1-5 of Semester and may require you to recall information, perform calculations, interpret data, analyse and synthesise information. |
| **CRITERIA:** | |

| No. | | Learning Outcome assessed |
|---|---|---|
| 1 | Ability to demonstrate accurate discipline knowledge | 1 2 3 |
| 2 | Ability to provide correct answers to multiple choice questions relating to the theoretical content sourced from the eModules, lectorials, practicals, workshops, readings and other prescribed activites | 1 2 3 |
| 3 | ability to apply theoretical knowledge to physiology problems | 3 |

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|---|---|
| **GENERIC SKILLS:** | Problem solving, Organisation, Information literacy |

**All - Assessment Task 3:** End of semester examination of theory

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|---|---|
| **GOAL:** | The goal of this task is to give you the opportunity to demonstrate your knowledge and understanding of the theory presented in the course. LFS112 is a foundation course for your degree and it is important to develop a sound understanding of the key physiological concepts and principles of different tissues and organ systems responsible for human life. |
| **PRODUCT:** | Examination - Centrally Scheduled |
| **FORMAT:** | Completion of the final comprehensive exam, two hours in length and may consist of multiple choice and/or short answer style questions. The final examination will be online, or centrally-invigilated, and closed book, depending on examination setting. |
| **CRITERIA:** | |

| No. | | Learning Outcome assessed |
|---|---|---|
| 1 | Ability to demonstrate accurate discipline knowledge | 1 2 3 |
| 2 | Ability to provide correct answers to multiple choice questions relating to the theoretical content sourced from the eModules, lectorials, laboratories, workshops, readings and other prescribed activities | 1 2 3 |
| 3 | Ability to apply knowledge to physiology problems | 3 |

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|---|---|
| **GENERIC SKILLS:** | Problem solving, Organisation, 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.

## 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 | Frederic H. Martini,Judi L. Nath,Edwin F. Bartholomew | 0 | Fundamentals of Anatomy & Physiology, Global Edition | 11th edition | n/a |

### 8.2. Specific requirements

To complete this course, students will require the LFS112 Human Physiology Course Manual and Lectorial Workbook (two separate resources). This is available for purchase from MaPS; with an electronic copy being available on Canvas. It is strongly recommended to have a hard copy of these manuals, as they are an invaluable resources to successfully complete the course. Students will requires personal protective equipment (PPE) for laboratory classes. This includes: a clean laboratory coat, fully-enclosed footwear and safety glasses. Students must present with this PPE in order to gain entry into the laboratory; no PPE is available for loan. Students are also required to complete the online Laboratory Induction on Canvas prior to gaining entry into the laboratory

## 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

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:

The final mark is in the percentage range 47% to 49.4%
The course is graded using the Standard Grading scale
You have not failed an assessment task in the course due to academic misconduct

## 10.3. Assessment: Submission penalties

Late submission of assessment tasks may be penalised at the following maximum rate (the rates are cumulative):
- 5% (of the assessment task's identified value) per day for the first two days from the date identified as the due date for the assessment task.
- 10% (of the assessment task's identified value) for the third day
- 20% (of the assessment task's identified value) for the fourth day and subsequent days up to and including seven days from the date identified as the due date for the assessment task.
- A result of zero is awarded for an assessment task submitted after seven days from the date identified as the due date for the assessment task.

Weekdays and weekends are included in the calculation of days late.
To request an extension you must contact your course coordinator to negotiate an outcome.

## 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