

Course Outline

Code: LFS112 Title: Human Physiology

School of:	Health & Sport Science
Teaching Session:	Semester 2
Year:	2019
Course Coordinators:	Drs Shaun Sandow and Mia Schaumberg. Email: LFS112@usc.edu.au
Course Moderator:	Dr Fraser Russell
Lead Tutor:	Drs Shelley Cavezza. Email: LFS112@usc.edu.au

Please go to the USC website 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 Course topics

- Introduction and Homeostasis
- Integumentary System and Thermoregulation
- Neurophysiology
- Endocrine System
- Cellular Metabolism
- Muscle Physiology
- Blood
- Immunity
- Cardiac and Vascular
- Respiratory
- Digestive System
- Renal System
- Sensory
- Reproductive

2. What level is this course?

100 level Introductory - Discipline knowledge and skills at foundational level, broad application of knowledge and skills in familiar contexts and with support. Normally associated with the first full-time 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?

Specific Learning Outcomes On successful completion of this course you should be able to:	Assessment Tasks You will be assessed on the learning outcome in task/s:	Graduate Qualities or Professional Standards mapping Completing these tasks successfully will contribute to you becoming:
Describe and apply theory to explain the physiology of: a. individual systems and/or b. an integrated system response	Task 1: Theory and application portfolio Task 2 & 3: Mid-semester and final examination	Knowledgeable. Creative and critical thinkers.
Demonstrate knowledge of practical procedures in physiology, including presentation and interpretation of data.	Task 1B: Laboratory assessment	Empowered. Knowledgeable.
Apply human physiology theory, knowledge and applications	Task 2 & 3: Mid-semester and final examination	Knowledgeable. Creative and critical thinkers.

5. Am I eligible to enrol in this course?

Refer to the [USC Glossary of terms](#) for definitions of “pre-requisites, co-requisites and anti-requisites”.

5.1 Enrolment restrictions

Nil

5.2 Pre-requisites

Nil

5.3 Co-requisites

Nil

5.4 Anti-requisites

LFS201 or LFS202

5.5 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. At USC these courses are LFS100 and LFS103.

6. How am I going to be assessed?

6.1 Grading scale

Standard – 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 pre-tutorial questions.
- Analysis and discussion of data with tutors in the lab classes.
- Multiple attempts for online quizzes.
- Revision questions that students can discuss with tutors.

6.3 Assessment tasks

Task No.	Assessment Tasks	Individual or Group	Weighting %	Duration / Length	When should I submit?	Where should I submit it?
1A	Portfolio: Preparation and Participation	Individual	15%	Approximately 1000 words (cumulative)	Weeks 3 - 12	In practical and tutorial class
1B	Portfolio: Laboratory and Practical Skills Assessment	Individual	20%	30 min each	Weeks 5, 9 & 13	Online through Blackboard
2	Mid-semester examination	Individual	25%	50 min	Week 6	In practical class
3	End of semester examination of theory	Individual	40%	120 min	Centrally scheduled	Examination venue
			100%			

Assessment Tasks 1A and 1B: Portfolio: 35%

Goal:	To provide ongoing opportunities to practice and apply the principles of the theoretical and practical content covered in lectures, tutorials and lab classes which will facilitate and consolidate learning.
Product:	1A: Preparation and participation activities 1B: 3 x online quizzes covering practical and theoretical components.
Format:	Preparation and participation activities are questions and activities that are associated with the tutorial and laboratory classes and will provide you the opportunity to receive feedback to assist you in completing the other portfolio tasks. The online quizzes will assist in consolidating skills related to calculations, data interpretation, and the comprehension and application of physiology knowledge. Each quiz will cover topics covered in laboratories, tutorials and lectures and will require synthesis and application of knowledge. 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. Students will be able to attempt the quiz twice, with the highest score contributing to their grade. 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:	You will be assessed on your: <ol style="list-style-type: none"> 1. level of successful completion of tutorial and practical exercises 2. completion of pre- and/or post-class activities associated with the tutorials and laboratory classes 3. active participation in class 4. correct responses to questions in the quizzes 5. accurate interpretation of physiological data 6. quality and clarity of written work

Assessment Task 2: Mid-semester examination: 25%

Goal:	You will demonstrate your knowledge and understanding of the theoretical and practical components of the course.
Product:	Written invigilated examination on the theoretical and practical content covered in Weeks 1-6.
Format:	50 minute in-class written examination consisting of multiple choice and short answer questions. This is a closed-book examination conducted in your regular practical class. 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:	You will be assessed on the following: <ol style="list-style-type: none"> 1. ability to demonstrate accurate discipline knowledge

	<ol style="list-style-type: none"> 2. ability to provide correct answers to multiple choice questions relating to the theoretical content sourced from the course lectures, tutorials, laboratory classes, readings and other prescribed activities 3. ability to apply theoretical knowledge to physiology problems
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Assessment Task 3: End of semester examination of theory: 40%

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:	Written examination in the final examination period covering content covered throughout the semester.
Format:	Completion of the final comprehensive exam, two hours in length and consisting of multiple choice and short answer style questions. The final examination is closed book.
Criteria:	<p>You will be assessed on the following:</p> <ol style="list-style-type: none"> 1. ability to demonstrate accurate discipline knowledge 2. ability to provide correct answers to multiple choice questions relating to the theoretical content sourced from the course lectures, tutorials, laboratory classes, readings and other prescribed activities 3. ability to apply knowledge to physiology problems

7. What are the course activities?

7.1 Directed study hours

The directed study hours listed here are a portion of the workload for this course. 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. Directed study hours may vary by location. Student workload is calculated at 12.5 learning hours per one unit.

Location: Specific Campus(es) or online:	Directed study hours for location:
USC Sunshine Coast	2 x 1-hour lecture per week 1 x 2-hour practical per fortnight 1 x 2-hour workshop per fortnight Online activities as directed

7.2 Course content

Week # / Module #	What key concepts/content will I learn?
1	Thermoregulation and the Integumentary system
2	Neurophysiology
3	Muscle physiology
4	Endocrine System
5	Cellular Metabolism
6	Blood Physiology and the Immune System
7	Digestive physiology
8	Cardiac and Vascular physiology
9	Renal physiology
10	Respiratory physiology
11	Reproductive physiology

12	Sensory physiology
13	Revision and exam preparation

Please note that the course content may be subject to variation.

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

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

8.1 Prescribed text(s)

Please note that you need to have regular access to the resource(s) listed below as they are required:

Author	Year	Title	Publisher
Martini, FH, Nath JL & Bartholomew EF	2018 (11 th edition)	Fundamentals of Human Anatomy & Physiology* *Mastering A&P available with purchase of the text; see link through Blackboard	Pearson

8.3 Specific requirements

To complete this course, students will require the LFS112 Human Physiology Practical and Tutorial Manual. This is available for purchase from MaPS; with an electronic copy is available on Blackboard, which must be printed out (electronic devices are not permitted in the laboratory). Additionally, students will need personal protective equipment (PPE) to be used within the lab classes. This includes: a clean laboratory coat, fully-enclosed footwear and safety glasses. Students must present with this PPE in order to gain entry to laboratory classes and assessments. Students are required to complete the online Laboratory Induction on Blackboard prior to gaining entry to the laboratory.

9. Risk management

Risks in this course are associated with that of a PC1 laboratory. Risk assessments have been performed for each experiment. There is a moderate level of health and safety risk. Each student must be familiarise themselves with any safety instructions given in the LFS112 laboratory notes or verbally given in class, in addition to any policies and procedures relating to general campus areas. During laboratory classes, students are required to wear personal protective equipment (PPE; laboratory coat, covered footwear and safety glasses) and long hair must be tied back. Safety data sheets (SDSs) for reagents used in laboratories will be available in the relevant laboratory class.

It is your responsibility as a student 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. It is also your responsibility to familiarise yourself with the University's general health and safety principles by reviewing the [online Health Safety and Wellbeing training module 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 Blackboard, are electronically checked through SafeAssign. This software allows for text comparisons to be made between your submitted assessment item and all other work that SafeAssign has access to.

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%
- b) The course is graded using the Standard Grading scale
- c) You have not failed an assessment task in the course due to academic misconduct

10.3 Assessment: Submission penalties

Late submission of assessment tasks will be penalised at the following maximum rate:

- 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 and supply the required documentation to negotiate an outcome. Item 10.3 does NOT apply to Assessment Task 1B, where alternative assessment will be available with AAE.

10.4 Study help

In the first instance, you should contact your tutor, then the Course Coordinator. Additional assistance is provided to all students through Academic Skills Advisers. To book an appointment or find a drop-in session go to [Student Hub](#).

Contact Student Central for further assistance: +61 7 5430 2890 or studentcentral@usc.edu.au

10.5 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
- Administration of Central Examinations
- Deferred Examinations
- Student Academic Misconduct
- Students with a Disability

Visit the USC website:

<http://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching>

10.6 General Enquiries

In person:

- **USC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **USC South Bank** - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane

- **USC Gympie** - Student Central, 71 Cartwright Road, Gympie
- **USC Fraser Coast** - Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- **USC Caboolture** - Student Central, Level 1 Building J, Cnr Manley and Tallon Street, Caboolture

Tel: +61 7 5430 2890

Email: studentcentral@usc.edu.au