



COURSE OUTLINE

HLT102

Introduction to Prosthetic and Orthotic Practice

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2021 | Semester 2

USC Sunshine Coast

ON CAMPUS

Most of your course is on campus but you may be able to do some components of this course online.

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

This introductory course will build your awareness prosthetic and orthotic practice through topics ranging from terminology, scope of practice, and material science concepts related to prosthetic and orthotic design. Practical exposure to the technical skills is done through a series of projects that will familiarise you to the tools and methods used in practice that will be used in future coursework. This course will start to develop your sense of professionalism and understanding of the scope of practice of a prosthetist/orthotist.

1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
ON CAMPUS			
Laboratory 1	3hrs	Week 1	13 times
Lecture – Lecture/tutorial	2hrs	Week 1	13 times

1.3. Course Topics

Module 1: The profession of Prosthetics and Orthotics

Module 2: Materials and Work Health Safety

Module 3: Orthotic management of the foot and ankle

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	GRADUATE QUALITIES MAPPING	PROFESSIONAL STANDARD MAPPING
On successful completion of this course, you should be able to...	Completing these tasks successfully will contribute to you becoming...	The Australian Orthotic Prosthetic Association
<p>1 Identify safety procedures and demonstrate technical skills through the safe use of hand tools, power tool, and personal protective equipment (PPE) within the discipline workplace.</p>	<p>Knowledgeable Empowered</p>	<p>2.4.2 - Uses appropriate techniques to ensure optimal fit and function of the orthosis/prosthesis 3.1.1 - Utilises appropriate casting, measuring and/or cast modification techniques to facilitate fabrication 3.1.2 - Fabricates and/or coordinates the optimal fabrication of orthoses/prostheses 3.1.3 - Performs and/or coordinates requires modifications of orthoses/prostheses 4.3.2 - Participates in audit processes and quality improvement initiative 5.1.1 - Adheres to legislation and workplace guidelines relating to safety 5.1.2 - Identifies workplace hazards and acts to eliminate or reduce risks 5.2.2 - Complies with relevant laws, regulations, policies and guidelines 5.3.2 - Seeks assistance or refers on when beyond own level of competence</p>
<p>2 Describe characteristics of common musculoskeletal aetiologies and discuss common orthotic and related treatment strategies.</p>	<p>Knowledgeable Empowered</p>	<p>2.1.1 - Identifies subjective and objective information to enable development of an appropriate orthotic/prosthetic care plan 2.2.1 - Accesses and utilises evidence to guide clinical decisions 2.4.1 - Considers all relevant characteristics of the client during orthosis/prosthesis fitting and review processes 6.1.1 - Undertakes independent learning to further own knowledge and skills on a continuous basis 6.2.2 - Demonstrates a systematic approach to analysis and decision making 6.2.3 - Integrates evidence and new learning into practice to improve health outcomes for clients</p>
<p>3 Discuss, using evidence and examples, the fundamental principles and components in prosthetics and orthotics.</p>	<p>Knowledgeable</p>	<p>1.3.2 - Provides relevant information in order to facilitate client access to care 2.3.6 - Determines and justifies the design details of the orthosis/prosthesis prescription 3.1.2 - Fabricates and/or coordinates the optimal fabrication of orthoses/prostheses</p>
<p>4 Explain the main properties of materials, both basic engineering principles (stress, strain, deformation, etc.) and properties of common materials used in prosthetics and orthotics and their impact on clinical care.</p>	<p>Knowledgeable Empowered</p>	<p>2.3.6 - Determines and justifies the design details of the orthosis/prosthesis prescription 3.1.2 - Fabricates and/or coordinates the optimal fabrication of orthoses/prostheses 3.2.1 - Assesses the orthosis/prosthesis for structural safety at appropriate intervals 3.2.2 - Ensures the orthosis/prosthesis is compliant with manufacturer guidelines and standards</p>

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On successful completion of this course, you should be able to...	Completing these tasks successfully will contribute to you becoming...	The Australian Orthotic Prosthetic Association
<p>5 Critically reflect on the AOPA professional scope of practice and competency standards and how you may apply this scope to develop clients, providers, and your own understanding of the profession and its role in healthcare.</p>	Empowered	<p>1.1.7 - Provides prompt, accurate and comprehensive information in clear terms to enable the client and/or carer to make an informed decision</p> <p>1.2.2 - Respects, acknowledges and utilises the expertise of other health professionals</p> <p>1.2.3 - Establishes and maintains effective working relationships with other health professionals to enhance collaborative practice and client access to care</p> <p>1.2.4 - Actively participates within the health professional team and seeks opportunities to demonstrate professional excellence</p> <p>2.3.5 - Identifies clients who require collaborative care and liaises with the health professional team to ensure integrates care planning</p> <p>5.2.1 - Recognises the responsibility to do no harm</p> <p>5.2.2 - Complies with relevant laws, regulations, policies and guidelines</p> <p>5.3.1 - Works within professional scope of practice, consent of client and/or carer and authority of employer</p> <p>5.3.2 - Seeks assistance or refers on when beyond own level of competence</p> <p>5.3.3 - Recognises where further training is required to conduct competent practice</p>

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. Pre-requisites

Enrolled in Program SC367 with a Prosthetics & Orthotics Extended Major

5.2. Co-requisites

Not applicable

5.3. Anti-requisites

Not applicable

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

Not applicable

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

In week 4, you will complete a summative component of Task 1

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	1	Quiz/zes	Individual	40%	3 quizzes, weeks 4, 9 & 13, 45 minutes each.	Week 4	Online Test (Quiz)
All	2	Portfolio	Individual	25%	1500 words, plus pictures	Week 7	Online ePortfolio Submission
All	3	Report	Individual	35%	1000 words (+/- 10% for headings and references)	Week 12	Online Assignment Submission with plagiarism check

All - Assessment Task 1: Online quizzes

GOAL:	The purpose of the quizzes is to provide feedback on the theoretical knowledge related to the prosthetic and orthotic profession, industry materials, profession work health and safety, and orthotic management of the foot and related theory.		
PRODUCT:	Quiz/zes		
FORMAT:	Three quizzes are to be completed individually on Blackboard. These quizzes will consist of 20-30 randomized questions per quiz. There will be a mixture of multiple choice and true/false questions.		
CRITERIA:	No.		Learning Outcome assessed
	1	Explanation of principles and concepts in P&O	2 3 4
	2	Explanation of proper principles, material science and materials	3 4
	3	Identification and description of hazards and correct safe work practices	1
	4	Application of prosthetic and orthotic treatment strategies	2 3
	5	Description of prosthetic and orthotic profession, consumers, industry, professional bodies, and interventions	5

All - Assessment Task 2: Technical Competency Portfolio

GOAL:	The goal of the portfolio to is assess your development of understanding of industry work health and safety practices, tools, techniques, materials and basic P&O components through main technical competency areas.
PRODUCT:	Portfolio
FORMAT:	The portfolio, completed in PebblePad, will consist of modules containing activities of knowledge-based questions, safe work practices, P&O principles, tutor-based assessments of skill, and reflection on performance. The activities required to complete the portfolio will be completed in the on-campus lab sessions each week. You will have to reflect on the performance of your skill/experience/AOPA competencies based on the 'capstone' piece that combines the competencies above into a final device.

CRITERIA:	No.	Learning Outcome assessed	
	1	Artefact presentation	3
	2	Technical competency	1
	3	Description of hazards, risk, and identification of safe use standards.	1
	4	Demonstration of safe tool use, PPE, and manufacturing techniques	1 4
	5	Reflection on performance in relation to AOPA competencies	5

All - Assessment Task 3: Lab Report

GOAL:	The lab report will further integrate the knowledge of material science and P&O principles by having you apply methods to evaluate these concepts using real-world applications.		
PRODUCT:	Report		
FORMAT:	This report will discuss the results of and implications of material selection, design, and alignment done using real-world applications in P&O completed during lab. The report will require you to discuss, using principles and methods discussed in class and primary literature, how these elements work together to inform P&O intervention and how you as a future clinician could incorporate these concepts to provide quality intervention of future practice. Format will be available on BlackBoard		
CRITERIA:	No.		Learning Outcome assessed
	1	Use of literature	3
	2	Application of P&O principles	3 4
	3	Comprehension of results to conclusion	3 4
	4	Implications to clinical care	4 5
	5	Professionalism	2 5

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. Directed study hours may vary by location. 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 Blackboard 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	PUBLISHER
Required	Kevin C. Chui, Sheng-Che Yen, Milagros Jorge, Michelle M. Lusardi	2019	Orthotics and Prosthetics in Rehabilitation	Saunders

8.2. Specific requirements

You will be required to purchase Personal Protective Equipment and may be required to purchase some personal tools to use during the workshop. The list will be provided to you at the beginning of the semester. These tools would be used throughout the program and can be used in clinical practice after graduation.

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 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

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:

- 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. 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.

10.5. 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.

10.6. 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.

10.7. 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>

10.8. General Enquiries

In person:

- **USC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **USC Moreton Bay** - Service Centre, Ground Floor, Foundation Building, Gympie Road, Petrie
- **USC SouthBank** - 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