

BASIC ORTHOTICS SCIENCE

FOOT6001

Course Outline

Description:

New progressive theories that push the boundaries of our mechanistic understanding of foot orthotics are presented on a backdrop of traditional orthotic paradigms. Building on this discussion is exploring the evidence-based landscape for the use of custom orthotics for selected lower extremity conditions. The course concludes with a review of contemporary fabrication concepts.

Course Goals:

- Review of orthotic theory expanding beyond Unified Theory to Comfort Paradigms and Neurophysiology with implications on orthosis design.
- Reinforce evidence-based practice in orthotic design through contemporary research
- Examine current concepts in the foot impression and fabrication process

Course Objectives:

At the completion of this course, the student will be able to:

- Identify contemporary principles of orthotic theory that can be applied to clinical design
- Assess and review evidence for orthosis effectiveness of common conditions
- Differentiate and apply contemporary orthotic fabrication techniques

Texts/Readings:

No textbook is required. Readings for this course will be a selection of contemporary peer-reviewed journal articles curated to support concepts in the course.

Evaluation:

Participation	20%
Quiz #1	10%
Quiz #2	10%
Quiz #3	10%
Assignment	25%
Final Exam	<u>25%</u>
	100%

Participation: Participation marks are earned in forum discussions on OWL, and in any Zoom Group Meetings, by taking part in and encouraging discussions with your online classmates throughout the course. For information on how marks are allotted for your participation see the section below titled “**Online Participation Grading Chart**”.

Quiz #1: A quiz on the material from Units 1 & 2. The format of the exam will be multiple choice and short answers. Once you begin, you will have one hour to complete the quiz.

Quiz #2: A quiz on the material from Units 3 & 4. The format of the exam will be multiple choice and short answers. Once you begin, you will have one hour to complete the quiz.

Quiz #3: A quiz on the material from Units 5 & 6. The format of the exam will be multiple choice and short answers. Once you begin, you will have one hour to complete the quiz.

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Assignment: Each student will develop and present a detailed Case Report to the class during Week 7. Presentations will be posted as a voice recorded PowerPoint presentation attachment on the assignment submission window.

Final Exam: This exam will test you on information from Units 1 through 6. The format of the exam will be multiple choice, short answers, and case studies. The exam is scheduled synchronously.

Notes on Assignment:

- Must be professional and academic in style and content
- Must present ideas in a logical and well thought out flow
- Arguments, analysis, and conclusions must be based on clearly identified research and sources
- Must cite all references from other sources at the end of the presentation

Grading:

A+	90-100	One could scarcely expect better from a student at this level
A	80-89	Superior work which is clearly above average
B	70-79	Good work, meeting all requirements, and eminently satisfactory
C	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable
F	below 50	Fail

Please note: a minimum overall grade average of 70% is required. Students must obtain an average of 70% in all micro-credential courses to successfully complete any certificate.

Online Participation Grading Chart:

Participation marks will be awarded to students based on their level of participation in group discussion. The following chart will act as a guide for assessing student participation in this online course.

Grade	Criteria
5	<p>The student participates in classroom discussion providing relevant responses more than 5 times during the week.</p> <p>Replies to discussion questions, instructor comments, and the responses of other students is presented in a positive and critical manner.</p> <p>The student responds in a timely manner (allowing enough time for fellow students to respond, and not posting on the last days of the unit).</p> <p>Responses are of a high quality showing that an obvious effort has been made to research the answer. Responses offer new perspectives on course material and spark discussion amongst the class.</p>
4	<p>The student participates with relevant responses 4-5 times during the week.</p> <p>Responses are positive and critical in manner.</p> <p>The student responds in a timely manner (allowing enough time for fellow students to respond, and not posting on the last days of the unit).</p> <p>The student offers new ideas and responds to the contributions of others.</p>
3	<p>The student provides relevant contributions 3-5 times during the week.</p> <p>The student responds before the end of the unit.</p> <p>The student <i>occasionally</i> offers new ideas and responds to others.</p>

- 2 The student's contributions are weaker in quality and less than 3 responses per week.
 The student's responses are late in the week or not always on time.
 The student does not offer any new ideas, and responses to fellow students are few.
- 1 The student rarely provides contributions to the class discussion.
 The student does not respond on time.
 The student does not respond to the contributions of the other students.
- 0 The student provides little or no discussion.
 Information is contributed only when asked to by the instructor, and responses are negative or disagreeable to the instructor/fellow students.
 Responses show little in the way of comprehension of course material. The responses are usually limited to "I agree", "Me too" or the like.

Policy on Cheating and Academic Misconduct:

Academic honesty is a cornerstone of conduct at Western University. We cannot have freedom of expression without integrity. Students are responsible for understanding the nature of and avoiding the occurrence of plagiarism and other academic offences; please refer to the section on "Scholastic Offences" in the current University Academic Calendar, or on the web at <http://www.westerncalendar.uwo.ca>. Such offences include plagiarism, cheating on an examination, submitting false or fraudulent assignments or credentials, impersonating a candidate, or submitting for credit in any course any academic work for which credit has previously been obtained or is being sought in another course in this University or elsewhere (without the knowledge and approval of the instructor to whom the work is submitted). Students enrolled in non-degree courses are expected to abide by the University's code of conduct.

Plagiarism:

All required papers **will** be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between Western University and Turnitin.com (<http://www.turnitin.com>).

Statement on Professionalism:

Students enrolled in this program are expected to maintain standards of professionalism consistent with those in the workplace. This includes absenteeism and lateness, appropriate attire, use of technology during class, and your overall demeanour, especially when giving presentations, going on site visits, or hearing from guest speakers. Please consult your instructor if you require clarification on these standards and their interpretation for a specific course.

Code of Student Conduct:

The purpose of the Code of Student Conduct is to define the general standard of conduct expected of students registered at Western University, provide examples of behaviour that constitutes a breach of this standard of conduct, provide examples of sanctions that may be imposed, and set out the disciplinary procedures that the University will follow. For the complete Code of Student Conduct: <http://www.uwo.ca/univsec/pdf/board/code.pdf>.

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How often will the instructor communicate with me?

The instructor will be monitoring the Forum discussions a minimum of 5 days of the week. The instructor will only interject if they feel input is necessary (for example, to correct an incorrect response or redirect the discussion), but will refrain from interfering with healthy and productive student discussion. Messages and emails directed to the instructor will be responded to within 24 hours Monday through Friday.

Policy on Late Assignments:

All deadlines for lesson discussion postings, midterm and final exams will be strictly enforced. A late discussion posting in the Forum will not be marked without prior consent.

A late assignment will result in a 10% per day deduction, including weekends, up to a maximum of 5 days, after which assignments will not be accepted and a grade of zero will be assigned, unless documentation of accommodation has been provided in advance.

When will I receive my grades?

Midterm Exam and Assignments will be marked and the grades available within 10 days of submission. Final grades will be available within two weeks after the last scheduled day of the course. A grade report can be printed from myWCS.

How do I hand in assignments?

All assignments will be submitted electronically through OWL using the assignment tool. Failure to meet deadlines without the instructor's written permission will be subject to the late assignment policy. It is the student's responsibility to ensure that all assignments forwarded to the instructor arrive before the due date. If you experience difficulty in submitting assignments through OWL, you are responsible for contacting the instructor.

Course Schedule:

Each week a new unit will be introduced. Each unit will consist of independent readings, lecture notes, and interactive learning applications. FOOT6001 also features forum discussions throughout the course and a case-report assignment.

Week 1:	Unit 1 – Introduction to FOOT6001 and Traditional orthotic theory review
Week 2:	Unit 2 – Progressive orthotic theories (Quiz)
Week 3:	Unit 3 – Current evidence: orthotic therapy for foot & ankle pathologies
Week 4:	Unit 4 – Current evidence: orthotic therapy for knee & proximal pathologies (Quiz)
Week 5:	Unit 5 – Fabrication science: foot capture methodology
Week 6:	Unit 6 – Fabrication science: contemporary fabrication techniques (Quiz)
Week 7:	Case Report Presentations
Week 8:	Final Exam