



<b>Form: Course Syllabus</b>	<b>Form Number</b>	EXC-01-02-02A
	<b>Issue Number and Date</b>	2/3/24/2022/2963 05/12/2022
	<b>Number and Date of Revision or Modification</b>	
	<b>Deans Council Approval Decision Number</b>	2/3/24/2023
	<b>The Date of the Deans Council Approval Decision</b>	23/01/2023
	<b>Number of Pages</b>	06

1.	<b>Course Title</b>	<b>Introduction to prosthetics and orthotics</b>
2.	<b>Course Number</b>	<b>1803170</b>
3.	<b>Credit Hours (Theory, Practical)</b>	<b>2 (Theory)</b>
	<b>Contact Hours (Theory, Practical)</b>	<b>2 hours/week</b>
4.	<b>Prerequisites/Corequisites</b>	1.0301101/ Calculus(1) <b>2.0303101 / General Chemistry (1)</b>
5.	<b>Program Title</b>	Bachelor's in Orthotics and Prosthetics
6.	<b>Program Code</b>	1803
7.	<b>School/Center</b>	School of Rehabilitation Sciences
8.	<b>Academic Department</b>	Orthotics and Prosthetics
9.	<b>Course Level</b>	Undergraduate
10.	<b>Year of Study/Semester</b>	<b>1st year, first semester</b>
11.	<b>Program Degree</b>	BSc in Orthotics and Prosthetics
12.	<b>Other Departments involved in Teaching the course</b>	None
13.	<b>Main Teaching Instruction language</b>	English
14.	<b>Learning Types</b>	<input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Blended <input type="checkbox"/> Fully Online
15.	<b>Online Platform(s)</b>	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams
16.	<b>Issuing Date</b>	<b>December 27, 2024</b>
17.	<b>Revision Date</b>	<b>January 5, 2025</b>



### 18. Course Coordinator

**Name:** Dr. Bashar Al Qaroot

**Contact hours:** Wednesdays (9:00am – 11:00am)

**Office number:** 241

**Phone number:** +962-6-5355000 - 23241

**Email:** [A.alshawabka@ju.edu.jo](mailto:A.alshawabka@ju.edu.jo)

### 19. Other Instructors

Name:

Office number:

### 20. Course Description

Through this course, students will gain a comprehensive understanding of the field of prosthetics and orthotics, with a focus on the fundamentals of prosthetics and orthotics sciences as a key component of medical rehabilitation sciences. The course covers the theoretical and historical background of the prosthetics and orthotics field, emphasizing scientific principles, modern technologies, and their role in improving patients' lives. Additionally, the course aims to provide in-depth knowledge on general safety procedures, an overview of prosthetic and assistive device design, their mechanisms of action, and the materials used in their manufacturing.



## 21. Program Learning Outcomes

### Program Learning Outcomes Descriptors (PLOD)

PLO	National Qualification Framework Descriptors*		
	Knowledge (A)	Skills (B)	Competency (C)
1. Develop and integrate knowledge from foundational courses; including basic sciences, medical sciences, and research methods to reflect on rehabilitation sciences practice.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Demonstrate comprehensive knowledge and practical application of orthotics and prosthetics principles, including biomechanics, material science, device design, clinical application, emerging technologies, and evidence-based practices to support patient care and innovation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Apply orthotic and prosthetic skills and techniques in accordance with professional standards, integrating the effective use of equipment, materials, components, and emerging technologies to design and fabricate devices.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Perform comprehensive patient evaluations and develop individualized, evidence-based treatment plans, considering personal and environmental factors across diverse clinical settings.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Compose effective oral and written communication for clinical and professional purposes including the use of information technology resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Operate within interprofessional teams of healthcare providers, clients, communities, and organizations in traditional and emerging practices and illustrate the qualities of a lifelong learner	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Apply leadership and management skills to advance Jordan and the global community scientifically, socially, and technologically in rehabilitation sciences.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Generate scientific research that advances rehabilitation practices locally and globally.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Employ critical thinking, clinical reasoning, and ethical principles to assess complex clinical situations, formulate informed decisions, and deliver patient-centered orthotic and prosthetic interventions.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. Exhibit autonomy in clinical decision-making while identifying and overcoming the challenges in delivering patient-centered orthotic and prosthetic interventions, including managing complex cases and addressing resource limitations.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

\*Choose only one descriptor for each PLO: knowledge, skills, or competencies.



**22. Course Learning Outcomes: By the end of this course, the student is expected to achieve the following Learning outcomes:**

**CLO 1.** Explain the fundamental principles of prosthetics and orthotics, including their role in rehabilitation and healthcare. **(knowledge/ Understand)**

**CLO 2.** Identify the basic anatomical, biomechanical, and pathological considerations relevant to prosthetics and orthotics. **(knowledge/ Understand)**

**CLO 3.** Demonstrate foundational skills necessary for safely operating machinery and tools as well as avoid hazards in the workshops **(Skills/ analyze)**

**CILO4.** Utilize appropriate tools in prosthetics and orthotics **(Skills/ analyze)**

**CILO5.** Evaluate the use of basic prosthetic and orthotic devices for specific functional needs **(Competencies)**

**Matrix of Course Learning Outcomes according to National Qualification Framework Descriptors**

CLO Number	Knowledge		Skills				Competencies
	Remember	Understand	Apply	Analyze	Evaluate	Create	
1		X					
2		X					
3				X			
4				X			
5							X

**23. Matrix linking Course Learning Outcomes (CLOs) with Program Learning Outcomes (PLOs)**

CLO \ PLO*	1	2	3	4	5	6	7	8	9	10	**Descriptors		
	A	B	C										
1.		X									X		
2.			X									X	
3.										X			X
4.									X				X
5.					X								X

\*Map each Course Learning Outcome to ONLY one Program Learning Outcome based on the Courses Matrix

\*\* Descriptors are assigned based on (PLO) that was chosen and specified in the program learning outcomes matrix in item (21)



**24. Topic Outline and Schedule:**

Week	Lecture	Topic	ILO/s Linked to the Topic	Learning Types (Face to Face/ Blended/ Fully Online)	Platform Used	Synchronous / Asynchronous Lecturing	Evaluation Methods	Learning Resources
1	1.1	Syllabus and General introduction	-	Face to face	Moodle	Sync	-	-
	1.2	Introduction to P&O	1	Face to face	Moodle	Sync	Exams	Refs.
2	2.1	Introduction to P&O	1,2	Face to face	Moodle	Sync	Exams	
	2.2	Introduction to P&O	1,2	Face to face	Moodle	Sync	Exams	
3	3.1	Visiting lecturer (the rule of P&O)	1-5	Face to face	Moodle	Sync	Exams	
	3.2	Visiting lecturer (NGO and P&O)	1-5	Face to face	Moodle	Sync	Exams	
4	4.1	Visiting lecturer (P&O in the world)	1-3	Face to face	Moodle	Sync	Exams	
	4.2	Visiting lecturer (P&O as a profession)	1-5	Face to face	Moodle	Sync	Exams	
5	5.1	Visiting lecturer (Advancements in P&O)	1-5	Face to face	Moodle	Sync	Exams	
	5.2	code of practice	1-5	Face to face	Moodle	Sync	Exams	
6	6.1	code of practice	1-5	Face to face	Moodle	Sync	Exams	
	6.2	code of practice	1-5	Face to face	Moodle	Sync	Exams	
7	7.1	code of practice	1-5	Face to face	Moodle	Sync	Exams	
	7.2	<b>Midterm Exam</b>	1-5	Face to face	Moodle	Sync	-	
8	8.1	Safety measures in P&O workplace	1-5	Face to face	Moodle	Sync	Exams	
	8.2	Safety measures in P&O workplace	1-5	Face to face	Moodle	Sync	Exams	
9	9.1	Safety measures in P&O workplace	1-5	Face to face	Moodle	Sync	Exams	
	9.2	Safety measures in P&O workplace	1-5	Face to face	Moodle	Sync	Exams	



10	10.1	Materials in P&O	1-5	Face to face	Moodle	Sync	Exams	
	10.2	Materials in P&O	1-5	Face to face	Moodle	Sync	Exams	
11	11.1	Materials in P&O	1-5	Face to face	Moodle	Sync	Exams	
	11.2	Materials in P&O	1-5	Face to face	Moodle	Sync	Exams	
12	12.1	Materials in P&O	1-5	Face to face	Moodle	Sync	Exams	
	12.2	Materials in P&O	1-5	Face to face	Moodle	Sync	Exams	
13	13.1	Materials in P&O	1-5	Face to face	Moodle	Sync	Exams	
	13.2	Materials in P&O	1-5	Face to face	Moodle	Sync	Exams	
14	14.1	Materials in P&O	1-5	Face to face	Moodle	Sync	Exams	
	14.2	Materials in P&O	1-5	Face to face	Moodle	Sync	Exams	
15		<b>Final Exam</b>	1-5	Face to face	-	Sync	-	

**25. Evaluation Methods:**

Course Evaluation Plan						
Evaluation Activity	Mark*	Course Learning Outcomes				
		1	2	3	4	5
First Exam (mid exam)	30	x	x	x	x	x
Second Exam						
Final Exam	50	x	x	x	x	x
Classwork						
Evaluation of Semester work	Projects\Reports	10	x	x	x	
	Research\Worksheets					
	Fieldwork visits	10			x	x
	Clinical and practical performance					
	Portfolio					
	Presentations					
	Simulation/Modeling					
	Discussion					
	Quizzes					
	Exercises					
Interviews						
Conferences						



	Any other evaluation activities approved by the faculty committee						
<b>Total Marks (100%)</b>		100					

\* According to the instructions for granting a bachelor's degree

[ju.edu.jo](http://ju.edu.jo) القوانين والأنظمة والتعليمات :: الجامعة الأردنية

\*\*According to the instructions of organizing semester work, tests, examinations, and grades for the bachelor's degree.

### Mid-term exam descriptions table\*

CLO no.	CLO Weight	Total no. of questions	Total exam mark	No. of questions per CLO	No. of questions/ cognitive level					
					Remember 30%	Understanding 20%	Applying 20%	Analyzing 10%	Evaluating 10%	Creating 10%
1		10	30							
2		10	30							
3		10	30							
4		0	30							
5		0	30							

\* A table of descriptions is added in the case of courses that require a second exam.

### Final exam descriptions table

CLO no.	CLO Weight	Total no. of questions	Total exam mark	No. of questions per CLO	No. of questions/ cognitive level					
					Remember 30%	Understanding 20%	Applying 20%	Analyzing 10%	Evaluating 10%	Creating 10%
1		7	50							
4		7	50							
3		15	50							
4		11	50							
5		10	50							

### 26. Course Requirements

Students should have internet connection, a computer and access to e-learning system. All lectures are face to face.



## 27. Course Policy

### A- Attendance policies:

- Attendance will be taken periodically throughout the semester.
- Students are expected to attend and actively participate in all classes.
- Students are expected to be on time.
- When the student is unable to attend class, it is a courtesy to notify the instructor in advance using either e-mail.
- Repeated tardiness or leaving early will not be accepted.
- Students who miss class (or any portion of class) are responsible for the content. Any student who misses a class has the responsibility for obtaining copies of notes, handouts, assignments, etc. from class members who were present. If additional assistance is still necessary, an appointment should be scheduled with the instructor. Class time is not to be used to go over material with students who missed class(es).
- An absence of more than 15% of all the number of classes, which is equivalent of 5 lectures, requires that the student provides an official excuse to the instructor and the dean.
- If the excuse was accepted the student is required to withdraw from the module.
- If the excuse was rejected the student will fail, and mark of zero will be assigned as suggested by the laws and regulations of the University of Jordan.

### B- Absences from exams and handing in assignments on time:

- The instructor will not do any make-up exams.
- Exceptions for make-up exams and late submission of class assignments will be made on a case-by-case basis for true personal emergencies that are described as accepted by the regulations of UJ (e.g., documented medical, personal, or family emergency).
- Make-up exams will be arranged if justifications for missing the exam satisfy the above. It is the student's responsibility to contact the instructor within 24 hours of the original exam to schedule a make-up session. A make-up exam should be taken within a week from the original exam date, unless the student can provide documentation that makes meeting that deadline impossible; otherwise, the recorded score for that exam for the student will be a zero.
- Late assignments will not be accepted and submission of assignments (due to unjustified absence from class) by other students

### C- Health and safety procedures:

- Students will not be in direct contact with patients during this course.
- Students are not expected to use any heavy tools or equipment that might impose health and safety issues during this course.



- Students should work safely, including being able to select appropriate hazard control and risk management, reduction or elimination techniques in a safe manner in accordance with health and safety legislation.
- Students should understand the importance of and be able to maintain confidentiality.
- Students should understand the importance of and be able to obtain informed consent.
- Students should know the limits of their practice and when to seek advice or refer to another professional

**D- Honesty policy regarding cheating, plagiarism, and misbehavior:**

- Students are expected to observe all University guidelines pertaining to academic misconduct.
- Any work submitted by a student for academic credit must be the student's own work. Submission of work taken directly from another source (e.g., book, journal, internet, clinic forms, or another student work) will be considered plagiarism and the student/group will get a zero grade for that work if part of an assignment. In addition, if copying occurred, both the student who copied the work and the student who gave material to be copied (if applicable) will receive a zero for the assignment.
- Students are expected to do work required for assignments on their own. Asking other instructors at the JU clinic or the staff, or other students to assist in or do any part of the assignment for them will negatively affect their grade on that assignment. The course instructor is the person the student needs to talk to if s/he has any difficulties pertaining to an assignment or project and is strongly encouraged to schedule an appointment with the instructor if such difficulties arise during the semester.
- Course materials prepared by the instructor, together with the content of all lectures and review sessions presented by the instructor are the property of the instructor. Video and audio recording of lectures and review sessions without the consent of the instructor is prohibited.
- Any forms of academic misconduct will be handled according to the University of Jordan guidelines.

**E- Grading policy:**

- Grading for this course will be determined based upon the accumulation of points for variety of assignments and exams.
- All work will be evaluated on completeness, organization, clarity of information, and the integration and application of the material

**F-Available university services that support achievement in the course:**



- The University of Jordan provides many services to support social, health, and mental well-being of students in general and students with disabilities in specific. Students are advised to visit the Faculty of Students Affairs to learn more about those services.
- If you are a student with a disability for which you may request accommodations, please notify the staff of Services for Student with Disabilities (Faculty of Students Affairs) as soon as possible. Please also contact the instructor as soon as possible (email is acceptable) so the appropriate accommodations for this course can be made.

## 28. References

### A- Required book(s), assigned reading and audio-visuals:

#### 1. "Prosthetics and Orthotics: Lower Limb and Spine" by Ron Seymour

- A comprehensive guide that covers the foundational principles of prosthetics and orthotics, with a focus on lower limb and spinal devices.

#### 2. "Introduction to Orthotics: A Clinical Reasoning and Problem-Solving Approach" by Brenda M. Coppard and Helene Lohman

- Offers an accessible introduction to orthotics with practical applications, case studies, and problem-solving exercises.

### - Recommended books, materials, and media:

- Students should have internet connection, a computer and access to Microsoft Teams and the Moodle (e-learning system). All theory lectures will be given face to face and will be provided at the dashboard of the e-learning system.
- Articles and teaching materials provided by lecturer through the e-learning website
- Videos of practical content uploaded on Microsoft Stream, E-learning and YouTube

## 29. Additional Information

- This course builds on the knowledge that you have obtained in the Physics, anatomy, Orthopedics, Gait analysis and biomechanics so make sure that you prepare and revise the necessary information.
- This course is highly dependent on the e-learning website so make sure you have access to this platform and you can download the materials and access the lectures.



Name of the Instructor or the Course

Coordinator:

Dr. Bahsar Al Qaroot

Name of the Head of Quality Assurance  
Committee/ Department

Dr. Mahmoud Fataftah

Name of the Head of Department

Dr. Mahmoud Fataftah

Name of the Head of Quality Assurance  
Committee/ School or Center

Dr. Lara Al-khlaifat .....

Name of the Dean or the Director

..... Dr. Lara Al-khlaifat .....

Signature:

*Bashar Al Qaroot*

Signature:

*MF*

Signature:

*Mf*

Signature:

...LK.....

Signature:

... LK .....

Date:

October 13, 2025

Date:

.....

Date:

.....

Date:

2/11/2025.....

Date:

2/11/2025.....

- If you require any further information, make sure to e-mail the instructor and arrange for a meeting during the announced office hours



### Rubric for Evaluating a Report

Category	Criteria	Excellent (4)	Good (3)	Fair (2)	Poor (1)
Content and Analysis	Depth of content, relevance, and critical analysis of the topic	Comprehensive, insightful, and highly relevant; excellent critical analysis	Relevant and mostly well-analyzed	Some relevance, with limited depth	Irrelevant or superficial analysis
Structure and Organization	Logical flow, coherence, and adherence to the required format	Exceptionally well-organized, follows format perfectly	Generally well-organized, minor formatting issues	Adequately structured, but lacks coherence	Poor organization, confusing or missing structure
Research and Evidence	Use of credible sources, integration of evidence, and citation accuracy	Excellent use of credible sources, seamlessly integrated, perfect citations	Good use of sources, minor citation issues	Limited sources, inconsistently cited	Minimal or no use of credible sources, citations missing
Clarity and Presentation	Writing style, grammar, and clarity	Clear, concise, and error-free writing	Mostly clear, with minor errors	Some clarity, but frequent errors	Unclear or poorly written, significant errors
Originality and Creativity	Innovation and originality in ideas or approach	Highly original and creative; fresh perspective	Some originality or creativity	Limited originality, derivative ideas	No originality, completely derivative
Conclusions and Recommendations	Quality and practicality of conclusions and recommendations	Conclusions are well-supported and insightful; actionable recommendations	Logical conclusions, with some practicality	Vague conclusions, limited recommendations	Weak or unsupported conclusions
Engagement with Objectives	Alignment with the report's	Fully addresses all objectives or requirements	Addresses most objectives well	Partially addresses objectives	Fails to address objectives

The University of Jordan



الجامعة الاردنية

---

	purpose or objectives				
--	-----------------------	--	--	--	--