

Course Syllabus

1	Course title	Upper Extremity Prosthetics I	
2	Course number	1833311	
3	Credit hours	2 hours	
	Contact hours (theory, practical)	2 hours per week	
4	Prerequisites/corequisites	0502107+0501108	
5	Program title	Bachelor of Science Degree In Orthotics and Prosthetics	
6	Program code	1803	
7	Awarding institution	University of Jordan	
8	School	Rehabilitation science	
9	Department	Orthotics and Prosthetics	
10	Course level	Undergraduate, First year	
11	Year of study and semester (s)	2022/2023, Summer semester	
12	Other department (s) involved in teaching the course	N/A	
13	Main teaching language	English	
14	Delivery method	<input checked="" type="checkbox"/> Face to face learning <input type="checkbox"/> Blended <input type="checkbox"/> Fully online	
15	Online platforms(s)	<input type="checkbox"/> Moodle <input type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....	
16	Issuing/Revision Date		

17 Course Coordinator:

Name: Dr Mahmoud Alfatafta

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**18 Other instructors:**

Name:

Office number:

Phone number:

Email:

Contact hours:

Name:

Office number:

Phone number:

Email:

Contact hours:

19 Course Description:

As stated in the approved study plan.

This course covers the pathologies leading to upper extremity amputations, amputation levels, and the prostheses used for wrist disarticulation, trans-radial, elbow disarticulation, trans-humeral (above the elbow), shoulder disarticulation prostheses and their components, control systems, and the biomechanical principles related to them.

20 Course aims and outcomes:

A- Aims:

1. To understand the functional anatomy of upper extremity.
2. To recognize functional and cosmetic consequences of upper limb amputation.
3. To be able to describe different upper limb prosthetic components and understand their basic functions.
4. To understand the design and the biomechanical principles of upper limb prosthetic sockets.

Upon successful completion of this course, students will be able to:

SLOs	SLO (1)	SLO (2)	SLO (3)	SLO (4)
SLOs of the course				
1. Understand the anatomy of the Upper limb.	X			
2. Understand the functional anatomy of the upper limb.		X		
3. Identify the disorders, diseases and injuries which affect the normal function of upper limbs that can be managed by prosthesis.		X		
4. Classify different levels of upper limb amputation and recognize the procedure of the amputation and the related management.			X	
5. Recognize the causes of upper limb amputations including the congenital and pathological			X	

disorders that lead to upper limb amputation.				
6. Determine proper prosthetic components of different lower and upper limb prostheses and orthoses and demonstrate skills required to fabricate lower and upper limb prostheses and orthoses.				X

21. Topic Outline and Schedule:

Week	Lecture	Topic	Student Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
1	1.1	Upper limb anatomy	1	Face to face			Written exam	1
	1.2							
	1.3							
2	2.1	Amputation of upper limb	2	Face to face			Written exam	1

Week	Lecture	Topic	Student Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous / Lecturing	Evaluation Methods	Resources
	2.2	Prosthetic user rates		Face to face			Written exam	1&2
	2.3			Face to face				
3	3.1	The process of prescribing, training and evaluating different upper limb prostheses	2	Face to face			Written exam	2
	3.2							
	3.3							
4	4.1	The process of pre and post prosthetic rehabilitation process and the role of the rehabilitation team.	3	Face to face			Written exam	2
	4.2						Written exam	2
	4.3							
5	5.1	Upper limb prosthetic sockets	3	Face to face			Written exam	2
	5.2			Face to face				2
	5.3		3	Face to face			2	
6	6.1	Prosthetic sockets and its biomedical aspects	3	Face to face			Written exam	2
	6.2							
	6.3							
7	7.1	Mid exam						

	7.2							
	7.3							
8	8.1	Prosthetic hands and wrist units	3	Face to face			Written exam	2
	8.2							
	8.3							
9	9.1	Elbow units for above elbow prostheses	4&5	Face to face			Written exam	4
	9.2							
	9.3							
10	10.1	Shoulder units	4&5	Face to face			Written exam	4
	10.2		4&5	Face to face			Written exam	4
	10.3		4&5	Face to face			Written exam	4
Week	Lecture	Topic	Student Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
11	11.1	The harnessing systems and Control	6	Face to face			Written exam	3
	11.2		6	Face to face			Written exam	3
	11.3							
12	12.1	Stability outcome measures	6	Face to face			Written exam	3
	12.2							
	12.3							

13	13.1	Destabilizing forces	6	Face to face			Written exam	4
	13.2		6	Face to face			Written exam	4
	13.3		6	Face to face			Written exam	4
14	14.1	Modern sockets	6	Face to face			Written exam	3
	14.2							
	14.3							
15	15.1	Solving case problems	6	Face to face			Written exam	3
	15.2							
	15.3							

22 Evaluation Methods:

Opportunities to demonstrate achievement of the SLOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	SLOs	Period (Week)	Platform
Midterm	30	1-6	1-3	Week 7	Face to face
Assignment	20	4	3&4	Week 9	Online
Final	50	all	all		Face to face

23 Course Requirements



(e.g: students should have a computer, internet connection, webcam, account on a specific software/platform...etc):

- **Computer**
- **Internet**

24 Course Policies:

A- Attendance policies:

- 1- Attendance will be taken periodically throughout the semester.
- 2- Students are expected to attend and actively participate in all classes
- 3- Students are expected to be on time
- 4- When the student is unable to attend class, it is a courtesy to notify the instructor in advance using either e-mail
- 5- Repeated tardiness or leaving early will not be accepted.
- 6- 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).
- 7- An absence of more than 15% of all the number of classes, which is equivalent of (3) classes, requires that the student provides an official excuse to the instructor and the dean.
- 8- If the excuse was accepted the student is required to withdraw from the module.
- 9- If the excuse was rejected the student will fail the module and mark of zero will be assigned as suggested by the laws and regulations of the University of Jordan. Please refer to pages 133, 134 of the student handbook.

B- Absences from exams and submitting assignments on time:

- 1- The instructor will not do any make-up exams.
- 2- 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).
- 3- 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.



- 4- Late assignments will not be accepted and submission of assignments (due to unjustified absence from class) by other students will not be accepted regardless of how much work the student put into its preparation

C- Health and safety procedures: NA

D- Honesty policy regarding cheating, plagiarism, misbehavior:

- 1- Students are expected to observe all University guidelines pertaining to academic misconduct.
- 2- 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.
- 3- 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.
- 4- 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.
- 5- 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.

25 References:



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

1. Smith D.G., Michael J.W. and Bowker J.H. Atlas of amputations and limb deficiencies: Surgical, prosthetic, and rehabilitation principles. 3 ed. 2004. Rosemont: American Academy of Orthopaedic Surgeons. 75%
2. Meier R.H. and Atkins D.J. Functional restoration of adults and children with upper extremity amputation. 1 ed. 2004. New York: Demos. 5%
3. Pamela K Levangie, Cynthia C Norkin. Joint Structure and Function: A Comprehensive Analysis. 4th ed. 2005. Philadelphia: F.A. Davis. 20%

B- Recommended books, materials, and media:

26 Additional information:

Assignment Title:

Summary of published articles in the field of upper limb prosthesis:

The students will be working to summarize and present newly published articles in the field of upper limb prosthesis.

Assignment Rubric

Over all of the 20 marks

Aim 1	Fully included (2)	Half included (1)	Not included (zero)
Introduction A clear inclusive introduction of the article.			
Aim 2	Fully included (12)	Half included (2 marks for each point)	Not included (zero)

1- The aim of the article.			
2- The Methods that the researchers.			
3- The clinical benefits of the article.			
4- Limitation of the article.			
Aim 3	Fully included (2)	Half included (1)	Not included (zero)
The conclusion and the suggestion			
The overall language used (4 marks)			
1- Short sentences			
2- Spelling			
3- Grammar			
4- Meaning			
Copy and paste means <u>ZERO</u>			

Name of Course Coordinator: Dr Mahmoud Alfatafta	Signature: MA	Date: 04/10/2023
Head of Curriculum Committee/Department: -----	Signature: -----	---
Head of Department: Dr Amneh Alshawbka	Signature: -----	
Head of Curriculum Committee/Faculty: -----	Signature: -----	-
Dean: -----	Signature: -----	