

1	Course title	Advanced spinal orthoses
2	Course number	1803407
3	Credit hours (theory, practical)	2,0
	Contact hours (theory, practical)	2,0
4	Prerequisites/corequisites	1803311
5	Program title	Prosthetics and orthotics
6	Program code	03
7	Awarding institution	University of Jordan
8	Faculty	Rehabilitation sciences
9	Department	Prosthetics and orthotics
10	Level of course	4
11	Year of study and semester (s)	4-1
12	Final Qualification	BSc
13	Other department (s) involved in teaching the course	None
14	Language of Instruction	English
15	Date of production/revision	09-2019

16. Course Coordinator:

Name	Dr. Bashar Al Qaroot	
Rank	Associate professor	
Office number	206	
Office hours	Sun & Tue 11-12 & 1-2	
Phone number	----	
Email addresses	b.qaroot@ju.edu.jo	

17. Other instructors:

Name	
Rank	
Office number	
Office hours	
Phone number	
Email addresses	

	Name	
	Rank	
	Office number	
	Office hours	
	Phone number	
	Email addresses	

18. Course Description:

This course covers, in details, scoliosis deformity including aetiology, prognosis, reading different parameters related to scoliosis, diagnose, assessment and treatment. The focus will be on conservative treatment using a spinal orthoses. Different types of spinal orthoses (e.g. Boston, Chenaue and Charleston), their biomechanics, fabrication techniques and indication of use will be covered. Students will be encouraged to raise their level of thinking in which they will be challenged to use such information in hypothetical situation of patients with different needs.

1. 19. Course aims and outcomes:

A- Aims:

At the end of the course the students should:

1. Understand what is scoliosis
2. Understand how to diagnose scoliosis accurately
3. Know the etiology, prognoses and management of scoliosis
4. Know how to measure different parameters related to scoliosis
5. Know how to read an X-ray images for scoliotic patient
6. Know the different types and designs of spinal orthoses that are used to treat scoliotic patients
7. Understand the biomechanics behind the orthotic intervention for the treatment of scoliosis

B- Students Learning Outcomes (SLOs):

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

SLOs SLOs of the course	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Understand scoliosis	*	*											
2. Know how to measure different parameters related to scoliosis clinically and on the X-ray				*	*	*							
3. Know how to diagnose and assess scoliosis				*	*	*							
4. Know the different types and designs of spinal orthoses that are used to treat scoliotic patients	*	*		*									*
5. understand the biomechanical principles of scoliosis	*	*		*							*		*
6. understand the biomechanical principles of spinal orthoses	*	*		*							*		*

for the treatment of scoliosis													
7. employ the best biomechanical concepts in the treatment of scoliotic patient				*	*	*	*		*				*
8. understand the prognosis of scoliosis	*	*											
9. demonstrate the competency to develop a comprehensive treatment plan								*	*				*

Program SLOs:

Knowledge

1. Develop and integrate knowledge from foundational courses to reflect on rehabilitation sciences practice.
2. Demonstrate knowledge of skills, techniques, therapeutic modalities, and contemporary trends in orthotic and prosthetic practice.

Skills

3. Demonstrate proficiency in communication skills with patients and other healthcare staff.
4. Apply the skills of managing health practice (i.e. prosthetics and orthotics) in different environments and for different patients.
5. Perform appropriate examinations and evaluations of patients, taking into account personal and environmental factors across diverse clinical settings.
6. Develop constructive methods for utilizing the appropriate equipment, materials, components, and technologies in constructing prosthetic and orthotic devices
7. Plan, develop, and implement treatment plans appropriate for each patient according to their age and needs within a broad and continuous series of necessary healthcare treatment plans.

Competency

8. Compose oral and written communication outputs for clinical and professional purposes and communicate effectively and professionally, both oral and written, with patients, caregivers, and other health professionals within the team.
9. Operate within interprofessional teams of healthcare providers, clients, communities, and organizations in traditional and emerging practices.

- 10.** Apply leadership and management skills to advance Jordan and the global community scientifically, socially, and technologically in orthotics and prosthetic.
- 11.** Illustrate the qualities of a lifelong learner.
- 12.** Apply ethical principles to promote inclusion, participation, safety, and wellbeing for all clients.
- 13.** Demonstrate appropriate competencies in research and evidence-based practice.

20. Topic Outline and Schedule:

instructor	week	Topic	Achieved ILOs	Evaluation method	reference
Dr. Bashr Al Qaroot	1	Syllabus and history taking principles	4.1 6.1	Exam	
	2	Introduction to Scoliosis & scoliosis screening	8.2 4.1	Exam	
	3	Scoliosis diagnose	9.1 4.3	Exam	
	4	Assessing scoliosis parameters and progression	6.1 6.2 9.1	Exam	
	5	Scoliosis classification	9.2 8.2	Exam	
	6	Spinal orthoses for scoliosis	4.4 9.3 6.4	Exam	
	7	Midterm exam Spinal orthoses for scoliosis	9.7 6.6 4.5	Exam	
	8	Consideration in orthotic treatment	4.5 8.3 8.4 8.5	Exam	
	9	Cheneau orthoses	8.5 9.4	Exam	
	10	Boston orthosis	9.1 9.2	Exam	
	11	Charleston orthoses	8.1 6.6	Exam	
	12	Up to date innovation	6.3 6.4 4.6	Exam	
	13	Presentation	All	Case report and	

				presentation	
	14	Presentation	All	Case report and presentation	
	15	Presentation		Case report and presentation	
3.					
4.					

21. Teaching Methods and Assignments:

Please pick the approaches that will be used to achieve course and clinical objectives related to the ILOs:

select if applied	Instructional Methods	Learning Activities (Examples
×	Direct Instruction	<ul style="list-style-type: none"> Structured orientation lectures Skills and procedures demonstrations
×	Interactive Instruction	<ul style="list-style-type: none"> Clinical conferences and case presentations Seminars and discussions
×	Experiential Learning	<ul style="list-style-type: none"> Experiential learning in clinical setting Simulation Hands-on learning
×	Independent Study	<ul style="list-style-type: none"> Self-directed literature review and synthesis to address problems in a specific case study Reflective Journaling
	Blended Learning	<ul style="list-style-type: none"> Combined face-to-face classroom practices with computer-mediated activities regarding content and delivery of course topics
	Other (please specify)	

22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following <u>assessment methods and requirements</u> :		
Exams		
Exam	Date	Grade
Midterm exam	TBC	30
Final	TBC	50
presentation	See above	20
Assignments		
Assignment 1:		
<u>Assignment description:</u>		
<u>Assignment objective:</u>		

<u>Assignment due date:</u>	
<u>Grade:</u>	
<u>Rubric:</u>	(see attached)

23. Course Policies:

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 (2) classes, 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 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 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 will not be accepted regardless of how much work the student put into its preparation.

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, 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.

24. Required equipment:

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25. References:

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| 1. Section 2 (P 124 - 141) of “Hsu J., Michael J., Fisk J. AAOS atlas of orthoses and assistive devices. 4 ed. Philadelphia: Mosby, Inc.; 2008.” |
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26. Additional information:

Students will not be allowed to enter the workshop without being well equipped and wearing their lab coats!

Name of Course Coordinator: -----Dr bashar-Signature: -bashar- Date: -----

Head of curriculum committee/Department: - - Signature: - -

Head of Department: - - Signature: -

Head of curriculum committee/Faculty: Signature: - Z.H Dean: Signature:

Copy to:Head of Department
Assistant Dean for Quality Assurance
Course File

	Below Standard (mark 0)	Approaching Standard (2.5 marks)	At Standard (5 marks)
Explanation of Ideas & Information (knowledge)	<ul style="list-style-type: none"> • does not present information, arguments, ideas, or findings clearly, concisely, and logically; argument lacks supporting evidence; audience cannot follow the line of reasoning • selects information, develops ideas and uses a style inappropriate to the purpose, task, and audience (may be too much or too little information, or the wrong approach) • does not address alternative or opposing perspectives 	<ul style="list-style-type: none"> • presents information, findings, arguments and supporting evidence in a way that is not always clear, concise, and logical; line of reasoning is sometimes hard to follow • attempts to select information, develop ideas and use a style appropriate to the purpose, task, and audience but does not fully succeed • attempts to address alternative or opposing perspectives, but not clearly or completely 	<ul style="list-style-type: none"> • presents information, findings, arguments and supporting evidence clearly, concisely, and logically; audience can easily follow the line of reasoning • selects information, develops ideas and uses a style appropriate to the purpose, task, and audience • clearly and completely addresses alternative or opposing perspectives
	Below Standard (mark 0)	Approaching Standard (3 marks)	At Standard (6 marks)
Questions (individually)	<ul style="list-style-type: none"> • Wrong answer 	<ul style="list-style-type: none"> • Incomplete answer 	<ul style="list-style-type: none"> • Fully correct answer

	Below Standard (mark 0)	Approaching Standard (1.5 marks)	At Standard (3 marks)
Participation in Team Presentations	<ul style="list-style-type: none"> • Not all team members participate; only one or two speak 	<ul style="list-style-type: none"> • All team members participate, but not equally 	<ul style="list-style-type: none"> • All team members participate for about the same length of time
Self confidences and presentation	<ul style="list-style-type: none"> • does not look at audience; reads notes or slides • does not use gestures or movements • lacks poise and confidence (fidgets, slouches, appears nervous) • wears clothing inappropriate for the occasion • mumbles or speaks too quickly or slowly • speaks too softly to be understood • frequently uses “filler” words (“uh, um, so, and, like, etc.”) • does not adapt speech for the context and task 	<ul style="list-style-type: none"> • makes infrequent eye contact; reads notes or slides most of the time • uses a few gestures or movements but they do not look natural • shows some poise and confidence, (only a little fidgeting or nervous movement) • makes some attempt to wear clothing appropriate for the occasion • speaks clearly most of the time • speaks loudly enough for the audience to hear most of the time, but may speak in a monotone • occasionally uses filler words • attempts to adapt speech for the context and task but is unsuccessful or inconsistent 	<ul style="list-style-type: none"> • keeps eye contact with audience most of the time; only glances at notes or slides • uses natural gestures and movements • looks poised and confident • wears clothing appropriate for the occasion • speaks clearly; not too quickly or slowly • speaks loudly enough for everyone to hear; changes tone and pace to maintain interest • rarely uses filler words • adapts speech for the context and task, demonstrating command of formal English when appropriate
Organization & layout	<ul style="list-style-type: none"> • does not meet requirements for what should be included in the presentation • does not have an introduction and/or conclusion • uses time poorly; the whole presentation, or a part of it, is too 	<ul style="list-style-type: none"> • meets most requirements for what should be included in the presentation • has an introduction and conclusion, but they are not clear or interesting • generally times presentation well, but may spend too much or too little 	<ul style="list-style-type: none"> • meets all requirements for what should be included in the presentation • has a clear and interesting introduction and conclusion • organizes time well; no part of the presentation is too short or too

	short or too long	time on a topic, a/v aid, or idea	long
Bonus			
Presentation Aids	<ul style="list-style-type: none"> • does not use audio/visual aids or media • attempts to use one or a few audio/visual aids or media, but they do not add to or may distract from the presentation 	<ul style="list-style-type: none"> • uses audio/visual aids or media, but they may sometimes distract from or not add to the presentation • sometimes has trouble bringing audio/visual aids or media smoothly into the presentation 	<ul style="list-style-type: none"> • uses well-produced audio/visual aids or media to enhance understanding of findings, reasoning, and evidence, and to add interest • smoothly brings audio/visual aids or media into the presentation

