



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

1.	Course Title	Research Methods in Rehabilitation Sciences
2.	Course Number	1804340
3.	Credit Hours (Theory, Practical)	3 (theory)
	Contact Hours (Theory, Practical)	3 (theory)
4.	Prerequisites/Corequisites	1804331
5.	Program Title	B.S. in hearing and speech
6.	Program Code	1804
7.	School/Center	The University of Jordan
8.	Academic Department	Hearing & Speech Sciences
9.	Course Level	Third & Fourth Year
10.	Year of Study/Semester	2024-2025, Second semester
11.	Program Degree	Undergraduate
12.	Other Departments involved in Teaching the course	NA
13.	Main Teaching Instruction	English
14.	Learning Types	<input type="checkbox"/> Face to Face <input type="checkbox"/> Blended <input checked="" type="checkbox"/> Fully Online
15.	Online Platform(s)	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams
16.	Issuing Date	24/10/2024
17.	Revision Date	24/10/2024

18. Course Coordinator

Name: Contact hours: Office number: Phone number: Email:
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19. Other Instructors

NA

20. Course Description

This course introduces undergraduate students to rehabilitation research principles and methodologies, emphasizing evidence-based practice. Students will learn about different research paradigms and designs, how to find, evaluate, and analyze research literature, and understand research articles. The course also covers ethical considerations, validity, and participant selection, equipping students with the skills to critically appraise research for future academic and professional work in rehabilitation sciences. Experienced guest speakers will give lectures or a variety of interactive activities

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 knowledge of the role of audiologists and speech therapists in working with patients with communication and hearing disorders.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Demonstrate knowledge of the basic principles and methods of prevention, assessment, and intervention for individuals with communication and hearing disorders	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Apply and integrate evidence-based clinical skills (diagnosis, assessment, and intervention) in working with individuals with communication and hearing disorders.	<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 checked="" 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. Analyze the needs of clients and develop comprehensive individualized rehabilitation plan and apply ethical principles to promote inclusion, participation, safety, and wellbeing for all clients.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

*Choose only on descriptor for each PLO; either knowledge, or skills, or competencies.

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

1. **Formulate** clear, researchable questions in clinical research. (*Bloom's level: Apply*)
2. **Demonstrate** an understanding of the principles of evidence-based practice. (*Bloom's level: Understand*)
3. **Evaluate** ethical considerations and decision-making processes in clinical research, including institutional review boards (IRBs) and participant protection protocols at the University of Jordan. (*Bloom's level: Evaluate*)
4. **Analyze** research literature to identify key concepts such as reliability, validity, and different types of measurement scales. (*Bloom's level: Analyze*)
5. **Compare** between experimental, quasi-experimental, and single-subject research studies for clinical applications, and how threats to validity are minimized. (*Bloom's level: Understand*)
6. **Interpret** qualitative research methods and epidemiological approaches in relation to clinical research in healthcare settings. (*Bloom's level: Understand*)
7. **Recognize** measurement principles and appropriate measurement scales used in developing surveys and questionnaires. (*Bloom's level: Understand*)
8. **Critique** the various sections of a research journal article, summarizing key findings and identifying research gaps. (*Bloom's level: Evaluate*)

Matrix of Course Learning Outcomes according to National Qualification Framework Descriptors

CLO Number	Knowledge		Skills				Competencies
	Remember	Understand	Apply	Analyze	Evaluate	Create	
1			*				
2		*					
3					*		
4				*			
5		*					
6		*					
7		*					
8					*		



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

1. **Formulate** clear, researchable questions in clinical research. (*Bloom's level: Apply*)
2. **Demonstrate** an understanding of the principles of evidence-based practice. (*Bloom's level: Understand*)
3. **Evaluate** ethical considerations and decision-making processes in clinical research, including institutional review boards (IRBs) and participant protection protocols at the University of Jordan. (*Bloom's level: Evaluate*)
4. **Analyze** research literature to identify key concepts such as reliability, validity, and different types of measurement scales. (*Bloom's level: Analyze*)
5. **Compare** between experimental, quasi-experimental, and single-subject research studies for clinical applications, and how threats to validity are minimized. (*Bloom's level: Understand*)
6. **Interpret** qualitative research methods and epidemiological approaches in relation to clinical research in healthcare settings. (*Bloom's level: Understand*)
7. **Recognize** measurement principles and appropriate measurement scales used in developing surveys and questionnaires. (*Bloom's level: Understand*)
8. **Critique** the various sections of a research journal article, summarizing key findings and identifying research gaps. (*Bloom's level: Evaluate*)

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

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

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



23. 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	Introduction & Defining the research question	1	Online	Modl e & Te am s	S	Group discussion	Course syllabus + Course handouts+ textbook+ online material
	1.2	Defining the research question	1	Online	Modl e & Te am s	S	Group discussion	Course handouts+ textbook+ online material
	1.3	Defining the research question	1	Online		A/S	Group discussion	Course handouts+ textbook+ online material
2	2.1	Understanding evidence-based practice	2	Online	Modl e & Te am s	S	Group discussion	Course handouts+ textbook
	2.2	Understanding evidence-based practice	2	Online	Modl e & Te am s	A/S	Group discussion	Course handouts+ textbook
	2.3	Understanding evidence-based practice	2	Online	Modl e & Te am s	A/S	Group discussion	Course handouts+ textbook+ online material
3	3.1	Ethical Issues in Clinical Research	3	Online	Modl e & Te am s	S	Group discussion	Course handouts+ textbook



	3.2	Ethical Issues in Clinical Research	3	Online	Module & Teams	S	Group discussion	Course handouts+ textbook
	3.3	Ethical Issues in Clinical Research	3			A/S	forum/ assignment/ Activity/ recording/ video	Course handouts+ textbook+ online material
4	4.1	Searching the literature	3	Online	Module & Teams	S	Group discussion	Course handouts+ textbook+ online material Cr
	4.2	Searching the literature	3	Online	Module & Teams	S	Group discussion	Course handouts+ textbook+ online material
	4.3	Searching the literature	3	Online		A/S	forum/ assignment/ Activity/ recording/ video	Course handouts+ textbook+ online material
5	5.1	Principles of Measurement	4	Online	Module & Teams	S	Group discussion	Course handouts+ textbook+ online material
	5.2	Principles of Measurement	4	Online	Module & Teams	S	Group discussion	Course handouts+ textbook+ online material+
	5.3	Concepts of measurement (reliability and validity) * 2	4	Online		A/S	forum/ assignment/ Activity/ recording/ video	Course handouts+ textbook+ online material
6	6.1	Concepts of measurement (reliability and validity) * 2	4	Online	Module & Teams	S	Group discussion	Course handouts+ textbook+ online material
	6.2	Concepts of measurement (reliability and validity) * 2	4	Online	Module & Teams	S	Group discussion	Course handouts+ textbook+ online material



	6.3	Concepts of measurement (reliability and validity) *	4			A/S	forum/ assignment/ Activity/ recording/ video	Course handouts+ textbook+ online material
7	7.1	Designing surveys and questionnaires	7	Online	Module & Team	S	Group discussion	Course handouts+ textbook+ online material
	7.2	Designing surveys and questionnaires	7	Online	Module & Team	S	Group discussion	Course handouts+ textbook+ online material+
	7.3	Designing surveys and questionnaires	7	Online		A/S	forum/ assignment/ Activity/ recording/ video	Course handouts+ textbook+ online material
8	8.1	Understanding measurement scales	7	Online	Module & Team	S	Group discussion	Course handouts+ textbook+ online material
	8.2	Understanding measurement scales	7	Online	Module & Team	S	Group discussion	Course handouts+ textbook+ online material
	8.3	Midterm Exam		Final			On campus Exam	
9	9.1	Threats to design	5	Online	Module & Team	S	Group discussion	Course handouts+ textbook+ online material
	9.2	Threats to design	5	Online		S	Group discussion	Course handouts+ textbook+ online material
	9.3	Experimental Designs		Online		A/S	forum/ assignment/ Activity/ recording/ video	Course handouts+ textbook+ online material
10	10.1	Experimental Designs	5	Online	Module & Teams	S	Group discussion	Course handouts+ textbook+ online material
	10.2	Experimental Designs	5	Online	Module & Teams	S	Group discussion	Course handouts+ textbook+ online material



	10.3	Quasi-Experimental Designs	5	Online		A/S	forum/ assignment/ Activity/ recording/ video	Course handouts+ textbook+ online material
11	1.1.1	Single subject Designs	5	Online		S	Group discussion	Course handouts+ textbook+ online material
	1.1.2	Single subject Designs	5	Online	Module & Teams	/S	Group discussion	Course handouts+ textbook+ online material
	1.1.3	Single subject Designs	5	Online	Module & Teams	A/S	forum/ assignment/ Activity/ recording/ video	Course handouts+ textbook+ online material
12	1.2.1	Exploratory Research: Observational Designs	5	Online	Module & Teams	S	Group discussion	Course handouts+ textbook+ online material
	1.2.2	Exploratory Research: Observational Designs	5	Online		S	Group discussion	Course handouts+ textbook+ online material
	1.2.3	Qualitative research	6	Online		A/S	forum/ assignment/ Activity/ recording/ video	Course handouts+ textbook+ online material
13	1.2.1	Qualitative research	6	Online	Module & Teams	S	Group discussion	Course handouts+ textbook+ online material
	1.3.2	Qualitative research	6	Online	Module & Teams	S	Group discussion	Course handouts+ textbook+ online material
	1.2.3	Epidemiology	6	Online		A/S	forum/ assignment/ Activity/ recording/ video	Course handouts+ textbook+ online material
14	1.4.1	Epidemiology	6	Online	Module & Teams	S	Group discussion	Course handouts+ textbook+ online material



14.2	1	Critical appraisal (Evaluating Research Report)	8	Online	Module & Teams	S	Group discussion	Course handouts+ textbook+ online material
	14.3	Critical appraisal (Evaluating Research Report)	8	Online		A/S	forum/ assignment/ Activity/ recording/ video	Course handouts+ textbook+ online material
15	15.1	Putting it all together (analyzing journal article sections)	7	Online	Module & Teams	S	Group discussion	Readings+ Handouts+ online material
	15.2	Putting it all together (analyzing journal article sections)	7	Online	Module & Teams	S	Group discussion	Readings+ Handouts+ online material
	15.3	Conducting research in Jordan and the University of Jordan (IRBs and sources of funding)	3	Online	Module & Teams	S	Group discussion	Course handouts+ textbook+ online material

25. Evaluation Methods:

Course Evaluation Methods			Course Evaluation Plan								
Evaluation Activity		Mark*							Course Learning Outcomes		
			1	2	3	4	5	6	7	8	Columns can be added by the number of outcomes
First Exam (mid exam)		30 %	*	*	*	*			*		
Second Exam											
Final Exam		40%			*		*	*	*	*	
Classwork		30 %			*	*	*	*	*	*	
Evaluation of Semester work		15%									
	Research\Worksheets										
	Fieldwork visits										
	Clinical and practical performance										
	Portfolio										
	Presentations										



	Simulation/Modeling										
	Discussion										
	Quizzes	20%									
	Exercises	10%									
	Moodle & Teams activities and exercises										
	Interviews										
	Conferences										
	Any other evaluation activities approved by the faculty committee										
Total Marks (100%)											

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

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**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%	Analyze 10%	Evaluate 10%	Create 10%

* 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%	Analyze 10%	Evaluate 10%	Create 10%

26. Course Requirements

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



27. Course Policy

A- Attendance policies:

- Attendance will be taken periodically throughout the semester.
- Students are expected to attend and actively participate in all in-person and asynchronous activities.
- Students are expected to be on time. Everyone should be in class during the first 10 minutes of the lecture.
- When the student is unable to attend the in-person class, it is a courtesy to notify the instructor in advance using e-mail or teams.
- Repeated tardiness or leaving the in-person class meeting early will not be accepted.
- An absence of more than 15% of the in-class face-to-face meetings, which is **equivalent to (4 classes) of the synchronous classes**, requires that the student provides an official excuse to the instructor and the dean.

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, quizzes, exams, in-class, and home-based/asynchronous course related activities. 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:

B- Recommended books, materials, and media:

- Portney, L. G., & Watkins, M. P. (2020). Foundations of clinical research: Applications to evidence-based practice (4th ed.). F.A. Davis Company.
- Balthazar, C. H. & Vendrely, A.M. (2021). Rehabilitation research: Principles and applications (6th Edition). Riverport Lane, St Louis, Missouri: Elsevier.
- Selected readings, videos, and websites will be assigned throughout the semester. These will be posted on E-learning.

29. Additional Information

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Name of the Instructor or the Course Coordinator: Signature: Date:

Name of the Head of Quality Assurance Committee/ Department Sara Alhanbali	Signature: SH.....	Date: 24/10/2024
Name of the Head of Department Sara Alhanbali	Signature: SH.....	Date: 24/10/2024
Name of the Head of Quality Assurance Committee/ School or Center Prof. Kamal Al Hadidi	Signature: KAH	Date: 24/10/2024
Name of the Dean or the Director Prof. Kamal Al Hadidi	Signature: KAH.....	Date: 24/10/2024