



Research Methods (2105021790) Second Semester 2024/2025

COURSE INFORMATION

Course Name: Research Methods Semester: Second Department: Department of Clinical Nutrition and Dietetics Faculty: Applied Medical Sciences	Course Code: 210521790 Section: 1 Core Curriculum: Major Requirements
Day(s) and Time(s): Monday: 10:30- 12:30 Classroom: Building of Medical Schools 107	Credit Hours: 2 Prerequisites: 2405011701

COURSE DESCRIPTION

This course discusses the basic approaches and techniques used in nutrition research on human populations. Therefore, it will include forming and critiquing different research designs, sampling techniques, methods of information collection and data analysis, and human research ethics. In addition, the student will write a research project.

DELIVERY METHODS

The course will be delivered through a combination of active learning strategies. These will include:

- PowerPoint lectures
- Active classroom-based discussion
- Supplementary articles
- E-learning resources: e-reading assignments and practice quizzes through Microsoft Team

FACULTY INFORMATION

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Office Hours:	Sunday & Tuesday: 11:30-11:30 Monday: 12:30-1:30 pm

REFERENCES AND LEARNING RESOURCES

Required Textbook:

Goyal RC. (2013). Research Methodology for Health Professionals. JAYPEE BROTHERS MEDICAL PUBLISHERS (P) LTD. ISBN: 978-93-5025-101-0

Suggested Additional Resources

Different types of published article

ACADEMIC SUPPORT

It is The Hashemite University policy to provide educational opportunities that ensure fair, appropriate, and reasonable accommodation to students who have disabilities that may affect their ability to participate in course activities or meet course requirements. Students with disabilities are encouraged to contact their Instructor to ensure their individual needs are met. The University, through its Special Needs section, will exert all efforts to accommodate for individual's needs.

Special Needs Section:

Tel: +962 5 3903333/ 5366

Location: Building of Medical Schools 2167

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STUDENT LEARNING OUTCOMES MATRIX*

Core Curriculum Learning Outcomes	Program Learning Outcomes	Course Objectives	Course Student Learning Outcomes	Assessment Method
To promote independent creative problem-solving in the context of nutritional issues.	(KP1) Possess advanced and up-to-date information in the fields of therapeutic nutrition, diets, and food safety, according to the latest developments in scientific research.	Define the research methods	Define the scientific nutrition research, classification, and major types. Develop advanced critical thinking skills.	Exam Critiquing article
	(KP2) Familiarity with advanced scientific research methodologies and creativity strategies.			
To review scientific literature on therapeutic nutrition and food safety to practice scientific writing.	(KP3) Demonstrate advanced knowledge of food safety principles and their application in managing foodborne diseases.	Identify gaps in research .	Develop skills in quantitative data analysis and presentation Demonstrate enhanced writing skills	Review of a certain topic Presentation
	(KP4) The ability to think critically in the field of therapeutic nutrition and food safety			
To prepare and support researchers who work on chronic illness prevention and treatment.	(SP1): Apply evidence-based nutrition and food safety information to resolve issues and apply advanced and integrated knowledge of food safety and nutrition-related health issues.			
To establish reputable nutrition departments in hospitals and other healthcare facilities.	(SP2): Design and implement innovative approaches for product development, quality control, and biological safety in food production	Differentiate between different research designs	Develop and implement a research design using the most appropriate methodologies.	
	(SP3): Identify appropriate research methodology to evaluate food safety and nutrition-related medical issues.	Develop a research design		
To enhance experts and researchers in therapeutic nutrition and food safety for various academic institutions, research centers, and food plants.	(SP4): Write a professional and polished scientific report on therapeutic nutrition and food safety using appropriate mathematical/statistical techniques to analyze research problems.	Summarize and critique the methodological processes used in published research articles.	Understand the basic elements of research ethics. Select suitable statistical tests for different study results	
		Evaluate the validity and reliability of different research methodologies	Prepare and present a research proposal and use presentation	

	(CP1): Continuous self-learning, self-assessment, and the ability to deal with and solve problems of a high degree of difficulty.		skills for various ways of dissemination	
	(CP2): Maintain ethical standards and best practices in research, product development, and public health initiatives related to nutrition and food safety.	Discuss research ethics		
To help enhance food producers with experts in the field of product development, quality control, and biological safety.	(CP3): Demonstrate a high level of work ethic reflective of responsibility/commitment towards service to society based on validated study methodology for community-based nutritional status assessment.			
To disseminate food safety and nutrition-related information through a variety of tools, such as public and private business, marketing, and social media.	(CP4): Lead research and multidisciplinary projects on medical nutritional therapy and food safety, work within a team, evaluate its performance and contribute to professional knowledge.	Communicate the results of the research project appropriately.		
	(CP5): Establish and manage reliable nutrition and food safety programs in health facilities, public health organizations, and the food industry.			

COURSE REGULATIONS

Participation

Class participation and attendance are important elements of every student's learning experience at The Hashemite University, and the student is expected to attend all classes. A student should not miss more than 15% of the classes during a semester. *Those exceeding this limit of 15% will receive a failing grade regardless of their performance.* It is a student's responsibility to monitor the frequency of their own absences. **Attendance record begins on the first day of class irrespective of the period allotted to drop/add and late registration. It is a student's responsibility to sign-in; failure to do so will result in a non-attendance being recorded.**

In exceptional cases, the student, with the instructor's prior permission, could be exempted from attending a class provided that the number of such occasions does not exceed the limit allowed by the University. The instructor will determine the acceptability of an absence for being absent. A student who misses more than 25% of classes and has a valid excuse for being absent will be allowed to withdraw from the course.

Plagiarism

Plagiarism is considered a serious academic offence and can result in your work losing marks or being failed. HU expects its students to adopt and abide by the highest standards of conduct in their interaction with their professors, peers, and the wider University community. As such, a student is expected not to engage in behaviours that compromise his/her own integrity as well as that of the Hashemite University.

Plagiarism includes the following examples and it applies to all student assignments or submitted work:

- **Use of the work, ideas, images or words of someone else without his/her permission or reference to them.**
- **Use of someone else's wording, name, phrase, sentence, paragraph or essay without using quotation marks.**
- **Misrepresentation of the sources that were used.**

The instructor has the right to fail the coursework or deduct marks where plagiarism is detected

Late or Missed Assignments

In all cases of assessment, students who fails to attend an exam, class project or deliver a presentation on the scheduled date without prior permission, and/or are unable to provide a medical note, will automatically receive a fail grade for this part of the assessment.

- Submitting a term paper on time is a key part of the assessment process. Students who fail to submit their work by the deadline specified will automatically receive a 10% penalty.

Assignments handed in more than 24 hours late will receive a further 10% penalty. Each subsequent 24 hours will result in a further 10% penalty.

- In cases where a student misses an assessment on account of a medical reason or with prior permission; in line with University regulations an incomplete grade for the specific assessment will be awarded and an alternative assessment or extension can be arranged.

Student Complaints Policy

Students at The Hashemite University have the right to pursue complaints related to faculty, staff, and other students. The nature of the complaints may be either academic or non-academic. For more information about the policy and processes related to this policy, you may refer to the students' handbook.

COURSE ASSESSMENT

Course Calendar and Assessment

Students will be graded through the following means of assessment and their final grade will be calculated from the forms of assessment as listed below with their grade weighting taken into account. The criteria for grading are listed at the end of the syllabus

Assessment	Grade Weighting	Day and Date
Midterm Exam	30%	Monday, 9 th Dec.2024
Critiquing research article	15%	Monday, 23 rd Dec.2024
Research proposal Presentation	15%	Monday, 30 th Dec.2024
Final	40%	To be announced

Description of Exams

Test questions will predominately come from material presented in the lectures and selected articles. Semester exams will be conducted during the regularly scheduled lecture period. Exam will consist of essay, case-study, and short answer questions.

No make-up exams, homework or quizzes will be given. Only documented absences will be considered as per HU guidelines.

Critiquing article

Students will write a report critiquing a published article, highlighting both its strengths and weaknesses, and its applicability to practice.

Presentation

An oral presentation of a summary of five published papers on a single topic is required in addition to the written report.

Grades are not negotiable and are awarded according to the following criteria*:

Letter Grade	Grade Points
A+	4.00
A	3.75
A-	3.50
B+	3.25
B	3.00
B-	2.75
C+	2.50

Weekly Lecture Schedule and Content			
Week	Lectures	Topic	Chapter
1	1	Introduction to Research <ul style="list-style-type: none"> • What is research • Ways to Classify Research • Major Types of Nutrition Research Studies 	1
2	2	Research Ethics <ul style="list-style-type: none"> • Responsible Conduct of Research • Ethics and Human Subjects Research • Institutional Review Boards 	Selected Papers
3	3	Writing research proposal <ul style="list-style-type: none"> • Identify a Topic and Research Question/Objective • Search the Literature and Write the Literature Review 	4 and 18
4 and 5	4 and 5	Study design options <ul style="list-style-type: none"> • Descriptive designs • Experimental designs • 	6
6 and 7	6 and 7	Determination of sample size and sampling methods <ul style="list-style-type: none"> • Sample Size Determination • Representativeness • Sampling Methods: probability and non-probability sampling 	10
Midterm Exam: 9th Dec. 2024			
8	8	Analysis of data <ul style="list-style-type: none"> • Different types of statistical tests 	12
9	9	Writing your thesis <ul style="list-style-type: none"> • Chapter 1 – Introduction • Chapter 2 – Literature Review • Chapter 3 – Methods • Chapter 4 – Results • Chapter 5 – Discussion/Conclusions • References and appendices 	18
10	10	Dissemination: The 3 P's <ul style="list-style-type: none"> • Posters, • Presentations, • Publications 	19
11	11	Research article <ul style="list-style-type: none"> • Research Title and Authors • Introduction of Article • Methods • Results • Discussion/Conclusion 	20
12, 13 and 14	Presentations		

ASSESSMENT RUBRICS

Assessment Rubrics to be determined by the department. Add samples below.

Classroom Participation: Assessment Criteria					
Criteria	Quality				Score
	Excellent (4 points)	Good (3 points)	Satisfactory (2 points)	Needs improvement (1 point)	
Degree to which integrates course readings into classroom participation	<ul style="list-style-type: none"> - often cites from readings; - uses readings to support points; - often articulates "fit" of readings with topic at hand. 	<ul style="list-style-type: none"> - occasionally cites from readings; - sometimes uses readings to support points; - occasionally articulates "fit" of readings with topic at hand. 	<ul style="list-style-type: none"> - rarely able to cite from readings; - rarely uses readings to support points; - rarely articulates "fit" of readings with topic at hand. 	<ul style="list-style-type: none"> - unable to cite from readings; - cannot use readings to support points; - cannot articulate "fit" of readings with topic at hand. 	
Interaction/participation in classroom discussions	<ul style="list-style-type: none"> - always a willing participant, responds frequently to questions; - routinely volunteers' point of view. 	<ul style="list-style-type: none"> - often a willing participant, - responds occasionally to questions; - occasionally volunteers' point of view. 	<ul style="list-style-type: none"> - rarely a willing participant, - rarely able to respond to questions; - rarely volunteers point of view. 	<ul style="list-style-type: none"> - never a willing participant., - never able to respond to questions; - never volunteers point of view. 	
Interaction/participation in classroom learning activities	<ul style="list-style-type: none"> - always a willing participant; - acts appropriately during all role plays; - responds frequently to questions; - routinely volunteers' point of view. 	<ul style="list-style-type: none"> - often a willing participant; - acts appropriately during role plays; - responds occasionally to questions; - occasionally volunteers' 	<ul style="list-style-type: none"> - rarely a willing participant. - occasionally acts inappropriately during role plays; - rarely able to respond to direct questions; 	<ul style="list-style-type: none"> - never a willing participant - often acts inappropriately during role plays; - never able to respond to direct questions; - never volunteers point of view. 	

		point of view.	-rarely volunteers point of view.		
Demonstration of professional attitude and demeanor	<ul style="list-style-type: none"> -always demonstrates commitment through thorough preparation; - always arrives on time; - often solicits instructors' perspective outside class. 	<ul style="list-style-type: none"> - rarely unprepared ; rarely arrives late; - occasionally solicits instructors' perspective outside class. 	<ul style="list-style-type: none"> -often unprepared; occasionally arrives late; - rarely solicits instructors' perspective outside class. 	<ul style="list-style-type: none"> -rarely prepared; - often arrives late; -never solicits instructors' perspective outside class 	