

Course Specification of Research Methods

I.	I. Course Identification and General Information:							
1	Course Title:	Research Methods						
2	Course Number & Code:	FR318						
		С.Н Тот						
3	Credit hours:	Theoretical	Practical	Training	Seminar	Total		
		2	0	0	0	2		
4	Study level/ semester at which this course is offered:	First Semester of Third Year						
5	Pre –requisite (if any):		F	R217				
6	Co-requisite (if any):	None						
7	Program (s) in which the course is offered:	Veterinary Medicine						
8	Language of teaching the course:	English						
9	Location of teaching the course:	Faculty of Veterinary Medicine						
10	Prepared by:	Dr. Hussein Abdulhadi Nasser Al-Wadei						
11	Date of approval:							

II. Course description:

The main concept of this course is to introduce the basis and principles of research methodology. A variety of research designs will be presented that include experimental and non-experimental as well as qualitative and quantitative designs. The course also aims at emphasizing the importance and needs for research in health practice. It prepares students to plan and carry out research projects, which includes discussions on sampling techniques, research designs and techniques of analysis, during their studies in the college of medicine and in their future career.

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III. Intended learning outcomes (ILOs) of the course:						
(A)	Knowledge and Understanding:					
A	lignment of Course Intended Learning Outcomes (CILOs) t Un		am Intended Learning Outcomes anding.	(PILOs) in: Knowledge and		
Program Intended Learning Outcomes (Sub- PILOs) in: Knowledge and Understanding			Course Intended Learning Outcomes (CILOs) in: Knowledge and Understanding			
After completing this program, students will be able to:			completing this course, studen	ts will be able to:		
A1-	Demonstrate a sound knowledge and understanding of concepts and principles of general culture, basic science, and that support veterinary medicine.	a1- Give students the basic information of data collection biostatistics and basic scientific which in turn will h student to write a scientific research article				
A2-	Clarifies basic concepts, principles, and theories related to animal production, animal health and nutrition, behavior management, breeding and care that is related to animal ethical codes.	a2- Provide students a broad understanding of research methodology, including theory of science and qualitative and quantitative methods.				
	Teaching And Assessment Met	hods	For Achieving Learni	ng Outcomes:		
	Alignment of Learning Outcomes of Knowledge	and U	nderstanding to Teaching a	nd Assessment Methods:		
Cour	rse Intended Learning Outcomes (CILOs) in	Teac	ching strategies/methods	Methods of assessment		
	Knowledge and Understanding		to be used			
compl	eting this course, students will be able to:	• Lectures		• The written test		
a1-	Give students the basic information of data collection, biostatistics and basic scientific	• G	roup discussions	• Short tests (Quizzes)		
	which in turn will help student to write a scientific research article	• Li	terature Review	Oral tests		
a2-	Provide students a broad understanding of research methodology, including theory of science and qualitative and quantitative	BrainstormingPractical Seminars		• Evaluation of report		
	methods.	Individual assignments Assignments				
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	(Homeworks)
	• Projects
	• Presentations

(B)	(B) Intellectual Skills:					
	Alignment of Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in: Intellectual skills					
Pro	ogram Intended Learning Outcomes (Sub- PILOs) in Intellectual skills	C	ourse Intended Learnin Intellectu	ng Outcomes (<mark>CILOs</mark>) of aal Skills		
After	After completing this program, students will be able to: After completing this course, students will be able to:					
B2-	Predicts an appropriate medical diagnosis for the most common disease states through analysis of clinical story data and the results of medical examinations of a sick animal.	b1- Discuss the importance of research ethics and appl their principles in the research process				
B3-	Design appropriate nursing and treatment care plans for different diseases that affect animals, prioritizing treatment.					
	Teaching And Assessment Meth	ods I	For Achieving Learn	ing Outcomes:		
Align	nment of Learning Outcomes of Intellectual Ski	ls to T	eaching Methods and As	sessment Methods:		
Сот	rse Intended Learning Outcomes (CILOs) in Intellectual Skills.	Teaching strategies/methods to be used		Methods of assessment		
After	completing this course, students will be able to:	• Le	ectures	• The written test		
b1-	Discuss the importance of research ethics and apply their principles in the research process	Group discussionsLiterature Review		Short tests (Quizzes)Oral tests		
b2-	Structure the problem with the correct research methodology by collecting data that accurately focuses on the research	• Bi	rainstorming ractical Seminars	• Evaluation of reports		
	Prepared by Quality Assurance Unit ussein Al-Wadei Dr. Abdulraqeb Alshami		Dean of the Faculty Prof. Dr. Abdu Alraoof	Academic Development Center & Quality		

Ass. Prof. Dr. Huda Al-Emad

Rector of Sana'a University Prof. Dr. Al-Qassim Mohammed Abbas

Al-Shawkany



problem	• Individual assignments	• Assignments (Homeworks)
		• Projects
		• Presentations

(C)	Professional and Practical Skills:					
Align	Alignment of Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in: Professional and Practical Skills					
	Program Intended Learning Outcomes (<mark>Sub- PILOs</mark>) in Professional and Practical Skills			earning Outcomes al and Practical Skills		
After completing this program, students will be able to:			r completing this cour	rse, students will be able to:		
C1-	Accurately records a comprehensive pathological story of a sick animal including information on healthy behavior and the necessary checks.	c1- Develop an ability to use effective, creati and innovative solutions to research problems				
С3-	Reads the results of laboratory investigations and diagnostic scans and writes reports and prescriptions for all common cases in a proper way.	c3- Critically evaluate the effectiveness of practical means of delivering or developi research strategies				
Align	Teaching And Assessment Methods]		0	0		
Alignment of Learning Outcomes of Professional and Practical Sk Course Intended Learning Outcomes (CILOs) in Professional and Practical Skills			Teaching Teaching ategies/methods to be used	Methods of assessment		
After	completing this course, students will be able to:	•	Lectures	• The written test		
c1- c2-	Develop an ability to use effective, creative and innovative solutions to research problems Critically evaluate the effectiveness of practical	•	Group discussions	Short tests (Quizzes)Oral tests		
F	Prepared by Quality Assurance Unit De	an of	the Faculty	Academic Development		

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Center & Quality Assurance Ass. Prof. Dr. Huda Al-Emad

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Literature Review	• Evaluation of reports
• Brainstorming	• Assignments (Homeworks)
Practical Seminars	• Projects
• Individual assignments	• Presentations
	 Brainstorming Practical Seminars Individual

(D)	General / Transferable Skills:				
Alignment of Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in: General and Transferable skills					
Pro	gram Intended Learning Outcomes (PILOs) in General / Transferable skills	C	ourse Intended Learnir General / Tran	ng Outcomes (<mark>CILOs</mark>) in Isferable skills	
After o	completing this program, students will be able to:	Afte	r completing this course, stu	dents will be able to:	
D1-	Communicates effectively with other fellow professions and animal owners and expresses his ideas clearly and objectively.	d1- Create teamwork, and interpersonal skills in discussing research programs using problem solving and critical thinking exercises in research case studies			
D2-	Develops his scientific, professional, research capabilities on his own, and follows what is emerging in his field of specialization, including computer applications and information and communication technology.	d2	d2 Encourage and develop skills that will enhance the performance of ongoing and constant learning and intellectual curiosity via independent learning exercises		
	Teaching And Assessment Metho Alignment of Learning Outcomes of General and Tra			0	
	urse Intended Learning Outcomes (CILOs) in General and Transferable Skills		ching strategies/methods to be used	Methods of assessment	
After	completing this course, students will be able to:	• L	ectures	• Lectures	
d1-	Create teamwork, and interpersonal skills in				
Dr.	Prepared by Quality Assurance Unit Hussein Al-Wadei Dr. Abdulraqeb Alshami As	s. Pro	an of the Faculty of. Dr. Abdu Alraoof Al-Shawkany	Academic Development Center & Quality Assurance Ass. Prof. Dr. Huda Al- Emad	

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 discussing research programs through the use of problem solving and critical thinking exercises in research case studies d2- Encourage and develop skills that will enhance the performance of ongoing and constant learning and intellectual curiosity via independent learning exercises IV. Course Content: 1 – Course Topics/Items: 			• I • H • H	Group discussions Literature Review Brainstorming Practical Seminars Individual assignments	 Group di Literatur Brainsto Practical Individu 	re Review rming Seminars
a – Theoretical Aspect						
Order	Topic List / Units	CILOs (symbols)		Sub-topic List	weeks	hours
1	a. Reading Syllabus and knowing each other b. Introduction to the course	a1, a2			1	2
2	Introduction to research – The role of research, understanding methodology	a1, a2, b2, b2, c1, c2 d1,		Types of research	1	2
3	Research designing and the language of research theory building	a1, a2, b2, b2, c1, c2 d1,		Research design steps in general	1	2
4	Understanding Concepts, Constructs, Variables, and Definitions. Thinking like a researcher	a1, a2, b2, b2, c1, c2 d1,			1	2
5	Student first Oral Research Presentation	a1, a2, b2, b2, c1, c2 d1,			1	2
6	Problems and Hypotheses, defining the research	a1, a2, b2, b2, c1, d1,	c2		1	2

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	problem, scientific method				
7	Literature Review & Group discussion	a1, a2, b2, b2, c1, c2 d1,		1	2
8	Methods of data collection for research	a1, a2, b2, b2, c1, c2 d1,		1	2
9	Processing and analysis of Data	a1, a2, b2, b2, c1, c2 d1,		1	2
10	Research ethical misconduct	a1, a2, b2, b2, c1, c2 d1,		1	2
11	Principles of scientific writing for research article	a1, a2, b2, b2, c1, c2 d1,	Research format, APA	1	2
12	Referencing Writing (Endnote)	a1, a2, b2, b2, c1, c2 d1,	Style, font, size, etc.	1	2
13	Student's Second Oral Presentation	a1, a2, b2, b2, c1, c2 d1,		1	2
14	Review	a1, a2, b2, b2, c1, c2 d1,		1	2
	Number of We	eks /and Units Per Seme	ster	14	28

	b- Training Aspect:				
Order	Training Tasks	CILOs (symbols)	Number of weeks	Contact hours	
1	None				
2	2				
	Number of Weeks /and Units Per Semester				

V. Teaching strategies of the course:

• Lectures

• Group discussions

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- Literature Review
- Brainstorming
- Practical Seminars
- Individual assignments

3-Assessment Methods:

- The written test
- Short tests (Quizzes)
- Oral tests
- Evaluation of reports
- Assignments (Homeworks)
- Projects
- Presentations

Grading Scale:

Grades are awarded on a scale from A to F, where A is the best grade(90-100) and F is a fail (<50).

V	VI. Schedule of Assessment Tasks for Students During the Semester:						
No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes (CILOs symbols)		
1	Participation, quizzes and assignments	2-14	10	10%	a-d		

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2	Mid-semester exam	8	10	10%	a-d
3	Mid-Term Practical Exam	8	10	10%	a-d
4	Final Practical Exam	16	10	10%	a-d
5	Final Oral Exam	16	5	5%	a-d
6	Final Written Exam	16	55	55%	a-d
	Total		100	100%	

VII. Students' Support:	
Office Hours/week	Other Procedures (if any)
Saturday-Wednesday from 11:00 am- 2:00pm	By Email
VIII. Learning Resource (MLA style or APA style	le)S:
1- Required Textbook(s) (maximum two)	
 Creswell, J. W. <i>Research design: Qualitative approaches</i>. 5th Ed. Thousand Oaks, CA: Sa Pawar, B.S. (2009). Theory building for hyp Response Rocks. New Delhi 	age, 2018.
Response Books, New Delhi. 2- Recommended Readings and Reference Materials	
1-	,
3- Essential References	
4- Electronic Materials and Web Sites etc. 1. HEALTH RESEARCH METHODOLOGY. A Second Edition. URL: http://www.wpro.who.int/publications/docs/He	C .
 2. A Practical Guide for Health Researchers. UR <u>committee/emro_ethics_dsa237.pdf</u> 5- Other Learning Material: 	L: <u>http://www.who.int/ethics/review-</u>

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Veterinary Medicine Program



PubMed https://www.ncbi.nlm.nih.gov/pubmed/

X.	Course Policies:
1	Class Attendance:
	MANDATORY TO ATTEND ALL COURSE LECTURES
2	Tardiness:
	Not allowed at all. Students must be in class 10 minutes prior to the beginning of lectures
3	Exam Attendance/Punctuality: Attendance is mandatory; absence is accepted with valid excuse. Students must be on time; tardiness is not permissible
4	Assignments & Projects: All assignments and projects are to be submitted on their due date. Any assignment turned in after the due date will not be accepted without valid and reasonable excuse.
5	Cheating:
	Not tolerated and may lead to EXPELLING the student from the program
6	Plagiarism:
	Not tolerated AT ALL and may lead to EXPELLING the student from the program
7	Other policies:
	1. All devices must be on silent or at least on vibration during lectures
	2. Before any exam (written, oral) we must check student's identity (student's card, ID,
	passport). Without any of these documents, the student will not be allowed in the exam
	room.
	3. Any of type/ form of cheating is not allowed no matter what.
	 Maintain silence during lectures/exam and disturbance is not allowed. For any questions students should raise their hand and wait for permission to talk.

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Course Plan of Research Methods

X Information about Faculty Member Responsible for the Course:							
Name of Faculty Member	Dr. Hussein Abdulhadi Al-Wadei	Office Hours					
Location & Telephone No.	Faculty of Veterinary Medicine Building	SAT	SUN	MON	TUE	WED	THU
E-mail	haalwadei@gmail.com	11am 2pm	11am 2pm	11am 2pm	11am 2pm	11am 2pm	

KI. O	(I. Course Identification and General Information:						
1-	Course Title:	Research Methods					
2-	Course Number & Code:	FR318					
		С.Н				Total	
3-	Credit hours:	Th.	Seminar	Pr.	F. Tr.	Total	
			-	-	-	2	
4-	Study level/year at which this course is offered:	First Semester of Third Year					
5-	Pre –requisite (if any):	FR217					
6-	Co –requisite (if any):	None					
7-	Program (s) in which the course is offered	Veterinary Medicine					
8-	Language of teaching the course:	English					
9-	System of Study:	Regular / Semester					
10-	Mode of delivery:	Lectures, Literature Review & Oral Presentations					
11-	Location of teaching the course:	Faculty of Veterinary Medicine Building					

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II. Course Description:

The main concept of this course is to introduce the basis and principles of research methodology. A variety of research designs will be presented that include experimental and non-experimental as well as qualitative and quantitative designs. The course also aims at emphasizing the importance and needs for research in health practice. It prepares students to plan and carry out research projects, which includes discussions on sampling techniques, research designs and techniques of analysis, during their studies in the college of medicine and in their future career.

II. Intended learning outcomes (ILOs) of the course:

After completing this course, students will be able to:

al- Give students the basic information & understanding of data collection, biostatistics and basic scientific which in turn will help student to write a scientific research article

a²⁻ Provide students a broad understanding of research methodology, including theory of science and qualitative and quantitative methods.

b1- Discuss the importance of research ethics and apply their principles in the research process

b2- Structure the problem with the correct research methodology by collecting data that accurately focuses on the research problem

c1- Develop an ability to use effective, creative and innovative solutions to research problems.

c2- Critically evaluate the effectiveness of practical means of delivering or developing research strategies

d1- Create teamwork, and interpersonal skills in discussing research programs using problem solving and critical thinking exercises in research case studies

d2- Encourage and develop skills that will enhance the performance of ongoing and constant learning and intellectual curiosity via independent learning exercises

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v. Cour	rse Content:					
A – Theo	A – Theoretical Aspect:					
Order	Topics List	Week Due	Contact Hours			
1	a. Reading Syllabus and knowing each other b. Introduction to the course	1	2			
2	Introduction to research – The role of research, understanding methodology	2	2			
3	Research designing and the language of research theory building	3	2			
4	Understanding Concepts, Constructs, Variables, and Definitions. Thinking like a researcher	4	2			
5	Student first Oral Research Presentation	5	2			
6	Problems and Hypotheses, defining the research problem, scientific method	6	2			
7	Literature Review & Group discussion	7	2			
8	Midterm Exam	8	2			
9	Methods of data collection for research	9	2			
10	Processing and analysis of Data	10	2			
11	Research ethical misconduct	11	2			
12	Principles of scientific writing for research article	12	2			
13	Referencing Writing (Endnote)	13	2			
14	Student's Second Oral Presentation	14	2			
15	Review	15	2			
16	Final Written Exam	16	2			
	Number of Weeks /and Units Per Semester	16	32			

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	b- Training Aspect:		
Order	Training Tasks	Week Due	Contact hours
1			
2			
Number of Weeks /and Units Per Semester			

V. Teaching strategies of the course:				
• Lectures				
Group discussions				
Literature Review				
• Brainstorming				
Practical Seminars				
/I. Assessment Methods:				
-The written test				
-Short tests (Quizzes)				
-Oral tests				
-Evaluation of reports				
-Assignments (Homeworks)				
-Projects				
-Presentations				

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Faculty Of Veterinary Medicine

Veterinary Medicine Program



Grading Scale:

Grades are awarded on a scale from A to F, where A is the best grade(90-100) and F is a fail (<65).

<u>N.B.:</u>

- 1. Any student who pass the 25% of the class attendance will not be allowed for the final exam.
- 2. Students are advised to study hard in the class during the semester.
- 3. Retaking an exam is not allowed without valid excuse.

No.	Type of Assessment Tasks	Week Due	Mark	Proportion of Final Assessment
1	Participation, quizzes and assignments	2-14	10	10%
2	Mid-semester exam	8	10	10%
3	Mid-Term Practical Exam	8	10	10%
4	Final Practical Exam	16	10	10%
5	Final Oral Exam	16	5	5%
6	Final Written Exam	16	55	55%
	Total		100	100%

II. Learning	Resources:
•	
1- Required Tex	xtbook(s) (maximum two).
1. 1. <i>appro</i>	Creswell, J. W. <i>Research design: Qualitative, quantitative and mixed methods aches.</i> 5th Ed. Thousand Oaks, CA: Sage, 2018.
	r, B.S. (2009). Theory building for hypothesis specification in organizational studies, onse Books, New Delhi.
2- Essential R	eferences.
Students are f taught lecture	Tree to search online for any available course materials related to the course subjects and us in the class.
3- Electronic	Materials and Web Sites <i>etc</i> .
1 2	Quality Assurance Unit Dean of the Faculty Academic Development

Dr. Hussein Al-Wadei

Dr. Abdulraqeb Alshami

Ass. Prof. Dr. Abdu Alraoof Al-Shawkany

Center & Quality Assurance Ass. Prof. Dr. Huda Al-Emad



PubMed https://www.ncbi.nlm.nih.gov/pubmed/

II. C	ourse Policies:
1	Class Attendance:
	MANDATORY TO ATTEND ALL COURSE LECTURES
2	Tardy: Not allowed at all. Students must be in class 10 minutes prior to the beginning of lectures
3	Exam Attendance/Punctuality: Attendance is mandatory; absence is accepted with valid excuse. Students must be on time; tardiness is not permissible
4	Assignments & Projects: All assignments and projects are to be submitted on their due date. Any assignment turned in after the due date will not be accepted without valid and reasonable excuse.
5	Cheating: Not tolerated and may lead to EXPELLING the student from the program
6	Plagiarism: Not tolerated AT ALL and may lead to EXPELLING the student from the program
7	 Other policies: All devices must be on silent or at least on vibration during lectures/labs. Before any exam (written, practical, oral) student's identity will be checked (student's card, ID, passport). Without any of these documents, the student will not be allowed in the exam room. Any of type/ form of cheating is not allowed no matter what. Maintain silence during lectures and disturbance is not allowed. For any questions students

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