

Republic of Yemen
Ministry of Higher Education & Scientific Research

Emirates International University



Faculty of Dentistry
Department of Oral Public Health
Doctor of Dental Surgery (DDS)

Course Specification of
Research Methodology
Course No. (.....)



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Review committee:

Head of the Department

Quality Assurance head

Dean of Faculty



I. Course Identification and General Information:

1	Course Title:	Research Methodology			
2	Course Code & Number:				
3	Credit Hours:	Credit Hours	Theory Hours		Lab. Hours
			Lecture	Exercise	
		2	2		--
4	Study Level/ Semester at which this Course is offered:	4 th Level / 2 nd Semester			
5	Pre –Requisite (if any):	Biostatistics			
6	Co –Requisite (if any):	None			
7	Program (s) in which the Course is Offered:	Doctor of Dental Surgery (DDS)			
8	Language of Teaching the Course:	English			
9	Study System:	Semester based System			
10	Mode of Delivery:	Full Time			
11	Location of Teaching the Course:	Faculty of Dentistry			
12	Prepared by:	Prof. Dr. Redhwan Ahmed Al-Naggar			

II. Course Description:

The research methodology course deals with the principles of research methods at the undergraduate level. It encompasses the understanding of presentation, analysis, interpretation of collected data and philosophy of dental research methods with application of each type to various research questions and community problems.

III. Course Intended Learning Outcomes (CILOs) : Upon successful completion of the course, students will be able to:		Referenced PILOs Learning out of program	
A. Knowledge and Understanding:		I, A or E	
a1	Identify methods of data collection	A1	Integrate knowledge of various key disciplines and current dentistry methods available to further their understanding of the study, investigation, diagnosis and monitoring of human health and disease in clinical and research environments.
a2	Describe different methods of data presentations	A2	Integrate the concepts and principles of the data presentation in dentistry practice.
a3	List the different sampling techniques	A3	Use critical thinking in oral health and dentistry related issues in the community and problem solving skills to decisions.
B. Intellectual Skills:			
b1	Apply the mean, median, mode, range, variance and standard deviation according to their characteristics and indications	B1	Integrate the concepts and principles of the basic of research methodology in dentistry practice.
b2	Apply observational and experimental studies to different research topics according to characteristics, advantages and disadvantages of each method	B2	Use critical thinking and problem solving skills to make evidence-based decisions.
C. Professional and Practical Skills:			
c1	Choose the research topic, with the professor's prior agreement.	C1	Execute quality management system and biosafety procedures in dentistry laboratory practice.
c2	Apply conceptual and theoretical frameworks to the chosen research topic	C2	Apply technical skills in using laboratory equipment, tools, and

				materials in dentistry practice.
D. Transferable Skills:				
d1	Work effectively with their colleagues		D1	Participate in teamwork harmoniously and exhibit collaboration with colleagues and other health care professionals.
d2	Use computer and internet as tool for self-learning and getting information		D2	Effectively use computer skills as well as information and communication technologies.

(A) Alignment of Course Intended Learning Outcomes (Knowledge and Understanding) to Teaching Strategies and Assessment Methods:			
	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
a1	Describe the principle concept of research methodology and the conceptual issues related to the chosen health research topic.	lectures	Quizzes Midterm Exam Final Exam Practical exam
a2	Identify theories, hypotheses, and methods used in health and social science research as well as sample and different types of samples.	discussion	Quizzes Midterm Exam Final Exam Practical exam
	List the different sampling techniques	lectures discussion	Quizzes Midterm Exam Final Exam Practical exam
(B) Alignment of Course Intended Learning Outcomes (Intellectual Skills) to Teaching Strategies and Assessment Methods:			
	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
b1	Compare basic study designs as well as select a relevant research topic based on dentistry	Demonstration	Quizzes Midterm Exam

	literature review		Final Exam Practical exam
b2	Create the oral and written communication skills and produce an advanced literature review which reflects in-depth research and analysis.	Presentation Brainstorming	Quizzes Midterm Exam Final Exam Practical exam

(C) Alignment of Course Intended Learning Outcomes (Professional and Practical Skills) to Teaching Strategies and Assessment Methods:

	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
c1	Write a research proposal in team work	Discussion	Homework Semester work

(D) Alignment of Course Intended Learning Outcomes (Transferable Skills) to Teaching Strategies and Assessment Methods:

	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
d1	Utilize internet sources for getting scientific information	Discussion Seminars Self-learning.	Homework
d2	Evaluate reports in the dental literature		
d3	Write a preliminary research proposal		

IV. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	Introduction	<ul style="list-style-type: none"> Definition, objectives and phases of Research. Introduction, definition and uses 	1 st W 2 nd W		a1, a2, a3

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
		of methods of collection of data – Types of data			
2	Literature Review	- Preparatory phase (reading dental Literature)	3 rd W	2	a1,a2, a3 b1
3	Data Presentation	– Methods of presentation of data (Graphical presentation) – Methods of presentation of data (Tabular presentation)	4 th W	2	a1,a2, a3 b1
4	Study Designs	- Cross-sectional design - Case- control design	5 th W	2	a1,a2, a3 b1
5	Experimental Methods in Epidemiology	- Clinical trials - Sampling - Population - Sample	6 th -7 th	4	a1,a2, a3 b1
6	Midterm Exam	MCQs and essay questions	8 th	2	a1,a2, a3 b1
7	Ethics	- Adopt ethical considerations on conducting research in dentistry settings - Anti-Plagiarism Policy	9 th	2	b1
8	Post Research Action Phase	- Data categorization and analysis - Steps of writing a report	10 th	2	a1,a2, a3
9	Scientific Writing	- Steps of write a research protocol	11 th -12 th	2	b1, b2
10	Writing a Research Protocol	- Selecting a research topic - Internet searching - Writing a protocol	13 th -14 th	2	a1,a2, a3, b2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
11	Revision		15 th	2	a1,a2, a3, b1, b2
12	Final Exam	MCQs and essay questions	16 th	2	a1,a2, a3, b1, b2
Number of Weeks /and Units Per Semester			16	32	

V. Teaching Strategies of the Course:

- Lectures
- Seminars
- Self-learning.
- Brainstorming
- Presentation
- Discussion

VI. Assessment Methods of the Course:

- Quizzes
- Midterm Exam
- Final Exam
- Observation
- Semester Work

VII. Assignments:

No.	Assignments	Week Due	Mark	Aligned CILOs (symbols)
1	presentation	2 nd -14 th	10	b
Total			10	

VIII. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Quizzes 1 & 2	5 th & 10 th	10	10%	a1,a2, a3 b1
2	Midterm Exam	8 th	20	20%	a1,a2, a3 b1
3	Assignment	13 th	10	10%	b1, b2, c1, d1, d2,d3
4	Final Exam	16 th	60	60%	a1,a2, a3, b1, b2
Total			100	100%	

IX. Learning Resources:

1- Required Textbook(s) :

- 1- Peres M et al. Oral Epidemiology, 1st Edition, Springer International Publishing
- 2- Kaurani P. Research Methodology in Dentistry. BlueRose Publishers

2- Essential References:

- 1- Levine R, Stillman-Lowe C. The Scientific Basis of Oral Health Education, 8th Edition, Springer International Publishing

3- Electronic Materials and Web Sites etc.:

Websites:

- 1- Dentistry E-Books
<https://hsl.uw.edu/collections/dentistry-ebooks/>

X. Course Policies: (Based on the Uniform Students' By law (2007))

1	Class Attendance: Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	Tardiness:

	A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating: Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	Forgery and Impersonation: Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	Other policies: The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Faculty of Dentistry

Department of Oral Public Health

Program of Doctor of Dental Surgery (DDS)

Course Plan (Syllabus) of
Research Methodology
Course No. (.....)

I. Information about Faculty Member Responsible for the Course:									
Name of Faculty Member:	Prof. Dr. Redhwan Ahmed Al-Naggar			Office Hours					
Location & Telephone No.:									
E-mail:				SAT	SUN	MON	TUE	WED	THU



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	C. Professional and Practical Skills:
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	D. Transferable Skills:
d1	Work effectively with their colleagues
d2	Use computer and internet as tool for self-learning and getting information

V. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
1	Introduction	- Definition, objectives and phases of	4	4

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		Research. – Introduction, definition and uses of methods of collection of data – Types of data	2nd W	
2	Literature Review	- Preparatory phase (reading dental Literature)	3rd W	2
3	Data Presentation	– Methods of presentation of data (Graphical presentation) – Methods of presentation of data (Tabular presentation)	4th W	2
4	Study Designs	- Cross-sectional design - Case- control design	5th W	2
5	Experimental Methods in Epidemiology	- Clinical trials - Sampling - Population - Sample	6th-7th	4
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7	Ethics	- Adopt ethical considerations on conducting research in dentistry settings - Anti-Plagiarism Policy	9th	2
8	Post Research Action Phase	- Data categorization and analysis - Steps of writing a report	10th	2
9	Scientific Writing	- Steps of write a research protocol	11th-12th	2
10	Writing a Research Protocol	- Selecting a research topic - Internet searching - Writing a protocol	13th-14th	2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
11	Revision		15th	2
12	Final Exam	MCQs and essay questions	16th	2
Number of Weeks /and Units Per Semester			16	32

VI. Teaching Strategies of the Course:

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- Brainstorming
- Presentation
- Discussion

VII. Assessment Methods of the Course:

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- Final Exam
- Observation
- Semester Work

VIII. Assignments:

No.	Assignments	Week Due	Mark	Aligned CILOs (symbols)
1	presentation	2 nd -14 th	10	b1, b2, c1, d1, d2,d3
Total			10	

IX. Schedule of Assessment Tasks for Students During the Semester:

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