



Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Department of Applied Dental Sciences
Second Semester 2013/2014

Course Information	
Course Title	Research Methodology and Project
Course Number	TDEN 493 (1 Credit Hour)
Prerequisites	PH 311 or co requisite
Lecture room and time	
Instructor	Zeid Al-Hourani
Office Location	Faculty of Applied Medical Sciences
Office Phone	02/ 7201000 ext. (26885)
Office Hours	
E-mail	zahorani@just.edu.jo
Supervisors	Abdel Rahim Bibars, Yasmeeen Janzeer, Maha AlOmari, Alina Twal
Course Description	
Develop skills in scientific methods and critical analysis of research findings. Emphasis is on types of research, problem selection and hypothesis writing, research planning and design, data collection and measuring techniques, analysis and interpretation of data, and critical analysis of research reports. Written research proposal is required for student taking the course.	

Text Book	
Title	Understanding Research Methods. An Overview of the Essentials
Author(s)	Patten, M.L
Publisher	Pyrczak Publishing. Los Angeles, CA
Year	2009
Edition	7 th edition
References	Needed Handouts will be distributed to students by the supervisors in every week meeting.

Useful Resources
DATA BASE available at JUST Library

Assessment Policy*		
Assessment Type	Expected Due Date	Weight
Midterm Exam		20%
Supervisor Continuous Assessment:		40%
Evaluation of Final Presentation By Examiner		30%
Meeting attendance + Participation		10%

Course Objectives	Weights
1. Develop basic skills in scientific methods	20%
2. Develop basic skills in critical analysis of research findings	20%
3. Identify types of research methods and their levels of rigor	15%
4. Write problem statements and hypotheses	15%
5. Use research planning and design, data collection and measuring techniques, and limited analysis and interpretation of data	10%
6. As a member of a collaborative research team, carry out a small research study on a current problem that needs to be investigated in one branches of dentistry, dental technology, dental materials, dental hygiene, dental assisting, or dental radiography (topic must be approved)	10%
7. Become a critical consumer of the professional research literature	10%

Teaching & Learning Methods
Lectures, reading and writing assignments, group discussion, library and computer lab work, and internet assignments, and practical experience in research.

Learning Outcomes	
Related Objective(s)	Outcomes
4, 7	Write a statement of the problem, significance of the problem, and review of the literature for the research project
4, 7	Define key terms conceptually and operationally that will be used in the research project
3, 5, 7	Protocol-Write methods and instrument used in the research project correctly and ensure protection of the human subjects
5, 7	Describe design of the research project used
4, 7	Write and test hypothesis(es) of the research project
1	Use internet search engines, electronic data bases, library, CD ROM, and refereed journals as references for research project
1, 2, 5, 6	Use systematic scientific approach in performing research

	project
2, 5, 6, 7	Use descriptive and inferential statistics to statically analyze research data
2, 7	Write results and discussion
2	Derive defensible conclusion(s) from research results and findings
1-7	Submit 3 spiral and hard covered copy of the research project to the course coordinator within the due dates
1-7	Successfully defense research project to a committee consists of 2 academic staff

	Course Content			
Week	Date	Topics	Chapter in Text (handouts)	Lecturer
1.		Review of the course syllabus	Course syllabus	-
2.		Library Search / Scientific Database	Lecture in JUST Library	Library Staff
3.		Research Protocol and Proposal Writing	Handouts will be provided	Dr Zeid AlHourani
4.		Research Approaches critique of abstracts	Handouts will be provided	Dr Zeid AlHourani
5.		The Scientific Method and Research Approaches	Handouts will be provided	Dr Zeid AlHourani
6.		Research Design/ Variables and their Control	Handouts will be provided	Abdel Rahim Bibars
7.		Ethical Issues in Health Science Research	Handouts will be provided	Abdel Rahim Bibars
8.		Referencing systems	Handouts will be provided	Abdel Rahim Bibars
9.		Midterm Examination		
10.		Weekly meeting with research groups		Supervisors
11.		Weekly meeting with research groups		Supervisors
12.		Weekly meeting with research groups		Supervisors
13.		Deadline for proposal submission		
14.		Presentation skills	Handouts will be provided	Abdel Rahim Bibars
15.		Evaluation of Final Presentation By Examiner		

Additional Notes	
Assignments	Students are required to do all the readings, written homework, internet assignments, identify evidence based references, carry out their group work assignment and all other assignments by the assigned due date
Exams	-
Cheating	Cheating the commitment of the Acts of Cheating and deceit such as copying during examinations is dishonest and will not be tolerated; JUST policy will be applied.
Attendance	Student attendance and responsibility: students are required to attend all the weekly meetings with the supervisor. <u>Two unexcused absences will result on two points deducted from the supervisor continuous assessment. Three or more unexcused absences will deserve a grade of “ZERO” for the attendance evaluation grade.</u> For excused absences, i.e. illness or emergency, student must contact the course coordinator immediately. In case of illness, student must submit a formal written excuse from the physician. Otherwise, the absence will be considered unexcused.
Graded Exams	Midterm exam and presentation assessment by department staff
Participation	Active class and out of class participation
Laboratory	Computer lab