Master of Clinical Pharmacy

Research Methods

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Purpose of the course

This course is intended to train students on the design, conduct, and analysis of clinical research. The course will develop skills in being a more critical reader of the medical literature and provide the tools to design your own protocol.

Syllabus

Overview	Topic	Notes
Week 1	**Introduction to the course**	**Read Chapter 1 and Answer Questions 1 and 2**
Week 2	**Key Concepts in Qualitative and Quantitative Research**	
Research Designs		
Week 3	**Understanding the Research Process in Qualitative and Quantitative Studies**	
	Research Problems, Research Questions, and Hypotheses	
Week 4	**Research Design I: Designs for Description**	
Week 5	**Research Design II: Designs for Explanation**	
	Discussing home works (research problems, research examples obtained by students)	**Deadline For Submitting Research problems**
Week 6	**Reviewing the Literature**	
	Writing a Research Proposal	
Week 7	**Samples and populations**	
	Sampling methods	
	Sample size	
Data Analysis		
Week 8	**Organizing and Presenting Data in Tables & Graphs**	
	Summarizing Data: frequency distributions; measures of dispersion and central tendency	
	Probability	
Week 9	**The normal distribution**	
	1. Hypothesis testing	
Week 10	**2. Research Questions About One Group**	

Week 11	3.Research Questions About Two Separate or Independent Groups	
Week 12	4. Research Questions About Means in Three or More Groups	
Week 13	Analyzing data when the observations are not normally distributed	
Week 14	Research Questions About Relationships Among Variables	
Others		
Self reading	Consent Form, ethical approval	
	Declaration of Helsinki	

Projects

1. RCT Critique: You are to critique a published article, evaluating the strengths and weaknesses, using the fundamentals presented in the lectures.

2. Protocol: You are to write a protocol with all of the components presented in some detail. (An example will be provided.) You may select the disease or question that is of most interest to you. Get my approval of your topic before you start.

Marks:
- Article critique : 5 marks
- Using SPSS: 5 marks
- Research Proposal: 15 marks
- Home Works: 5 marks
- Mid
- Final

Required knowledge before the course: Basic Descriptive Statistics

References

1. Basic Statistics for the Health Sciences: (5th edition) Jan W Kuzma, McGraw-Hill, 2004.

Course policy on professional behavior

Professional behavior is expected of all students at all times during this clerkship. If at any time unprofessional or dishonest behavior of a student is reported (this includes, but is not limited to: copying work from another student, submitting an assignment that is not the student's own work, or other academic dishonesty, failure to treat preceptors and TA's with respect and professionalism, the student may be removed from the course and receive a grade of "F" or at least

get a zero in all attitude and activities marks. Depending on the circumstances, the course master may also file a grievance against the student per school policy. Other unaccepted behaviors include:

- Using mobile phones

- Coming late

- Do not enter the classroom after me

- Side talks

Home Works: 0: not done, 1: weak, 2. average, 3. very good, 4. excellent

Student name												
لمياء حمزة												
دينا جرار												
خولة ابو حمور												
رنا ابو فرحة												
ديما العاصي												
ميرفت الصوص												
عماد زلوم												
نيروز المومني												
نور بطارسة												