

## Course Syllabus

## A. COURSE INFORMATION AND TEACHING STAFF

1. Course	Name	RESEARCH METHODOLOGY AND SCIENTIFIC WRITING						
	Code	151536110						
	Activity	Lecture						
	Credit hours	3						
	Semester	Spring 2022/2023						
	Pre-requisite	No Pre-Requisite						
2. Teaching staff, time and location	Section	Building	Room	Day	Time	Instructor	Office hours	
	1	AFS	023	S	08:30-11:30	Dr.Mohannad Mahmoud Ahmad Khader mohannad.khader@aaup.edu	N 12:30 - 13:50 MTWTh 11:30 - 12:30	

## B. COURSE POLICIES

1. Commitment and Attendance	<p>Attendance is required; and university regulations in this regard are strictly applied. It is important to note the following:</p> <ol style="list-style-type: none"> <li>The student is expected to follow all announcements issued by the university, faculty, department as well as the course instructor through the official channels. It is the student's full responsibility to get aware of these announcements and to react accordingly.</li> <li>The student has to communicate electronically with the course instructor, whenever needed, through the official channels exclusively which are limited to the AAUP email and Moodle messages only.</li> <li>The student is expected to attend all classes* and to arrive at classroom on time.</li> <li>If the instructor is late for class, the student must wait for at least 10 minutes before leaving the classroom.</li> <li>Absence by more than 25% of classes leads to an automatic withdrawal from the course (the grade W is assigned).</li> </ol>
2. Performance of assessment activities	<p>The student must perform all course assessment activities, i.e. assignments, quizzes, exams etc. It is important to note the following:</p> <ol style="list-style-type: none"> <li>Absence from an exam or a quiz other than the final exam leads to a zero mark in that exam or quiz. An exception allowing a makeup is made for a student submitting a legitimate excuse that is accepted by the instructor in a timely manner.</li> <li>Absence from the final exam leads to an FA grade that eventually turns to an F grade. An exception allowing a makeup exam is made if the student submits an official excuse that is accepted by the Academic Affairs in compliance with the university regulations.</li> </ol>

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## 3. Academic Integrity

The student is expected to be honest during the performance of assessment activities. While not limited to the list below, the following actions are examples of cheating:

1. Copying from other students.
2. Using materials that are not authorized by the proctor during quizzes or exams.
3. Collaborating with other students during quizzes or exams.
4. Stealing or buying the content of exams, quizzes, and assignments.
5. Stealing ideas and work of others and presenting them as that of the student

## 4. Grading

The university uses the letter grading system. It is important to note the following:

1. The passing grade is D, and the corresponding score (out of 100) is determined at the end of the semester.
2. At the end of the semester, the scale of scores is determined by converting each

## 5. Learning and teaching methods

## C. COURSE DETAILS

## 1. Course description &amp; purpose

This course prepares graduate students in Medical Laboratory Sciences to critically analyze professional literature with a focus on research design, methodology, implementation and statistical analysis. This course will facilitate the development of scholarly writing skills to communicate a critical analysis of the evidence with an application to practice. Various research designs will be introduced that include experimental and non-experimental as well as qualitative and quantitative designs. The course also aims at stressing the importance and needs for research in health practice. It prepares students to plan and carry out research projects during their master studies and in their future career. Students will learn data collection techniques, develop a basic vocabulary of biostatistics terms, and recognize the usefulness and limitation of biostatistics. They will also be introduced to concepts and techniques needed to describe, and analyze medical data; develop basic scientific writing skills and ability to use the computer software to conduct possible calculations and graphs.

## 2. Course learning outcomes (CLOs)

Upon the completion of the course, students will be able to achieve the following learning outcomes:

- |      |  |
|------|--|
| CLO1 | Define research related concepts                                     |
| CLO2 | Find scientific literature databases                                 |
| CLO3 | Classify research methods  |
| CLO4 | Describe types of research publications                              |
| CLO5 | Determine research methods followed in selected research publication |
| CLO6 | Conduct literature search in the databases                           |
| CLO7 | Design a preliminary research proposal                               |

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2. Course learning outcomes (CLOs)		Upon the completion of the course, students will be able to achieve the following learning outcomes:		
	CLO8	Demonstrate ability to criticise specialized scientific research articles		
	CLO9	Discuss his research proposal with a work group		
	CLO10	Initiate a discussion on research methods within a work group		
	CLO11	Mimic writing a thesis		
3. Assessments	Assessment tool	Weight %	CLOs	Due week
	Mid. Term	20%	1,2,3,4	
	Assignment	20%	5,6,8	
	Final Exam	35%	1,2,3,4,5,6,7,8,9,10	
	Activity	10%	6,10	
	Proposal	15%	7,9	
	Total	100%		

null

4. CLOs assessment	Outcomes	CLO 1	CLO 2	CLO 3	CLO 4	CLO 5	CLO 6	CLO 7	CLO 8	CLO 9	CLO 10	CLO 11
	- Activity						✓				✓	
	- Assignment					✓	✓		✓			
	- Final Exam	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	- Mid. Term	✓	✓	✓	✓							
	- Proposal							✓		✓		

## Course Syllabus

5. Course  
schedule

Week	Topics	Study material	Assignment	CLOs
1	Research: The Search for Knowledge	Research Methodology and Scientific Writing C. George Thomas Second Edition		1
2	Philosophy of Research	Research Methodology and Scientific Writing C. George Thomas Second Edition		1
3	Approaches to Research	Research Methodology and Scientific Writing C. George Thomas Second Edition		1
4	Major Research Methods	Research Methodology and Scientific Writing C. George Thomas Second Edition		3,4,5
5	Experimental Research	Research Methodology and Scientific Writing C. George Thomas Second Edition		3,4
6	Collection and Analysis of Data	Research Methodology and Scientific Writing C. George Thomas Second Edition		5,6,8
7	Planning and writing a Research Proposal	Research Methodology and Scientific Writing C. George Thomas Second Edition		7
8	Planning and writing a Research Proposal			7

## Course Syllabus

5. Course  
schedule

Week	Topics	Study material	Assignment	CLOs
9	Publications and the Library	Research Methodology and Scientific Writing C. George Thomas Second Edition		6
10	Academic Databases	Research Methodology and Scientific Writing C. George Thomas Second Edition		2,4,6
11	The Literature Review	Research Methodology and Scientific Writing C. George Thomas Second Edition		6,7,9
12	Preparation of Research Papers and Other Articles	Research Methodology and Scientific Writing C. George Thomas Second Edition		8
13	The Structure of a Thesis	Research Methodology and Scientific Writing C. George Thomas Second Edition		7,9,10,11
14	Tables and Illustrations	Research Methodology and Scientific Writing C. George Thomas Second Edition		7,11
15	References: How to Cite and List Correctly	Research Methodology and Scientific Writing C. George Thomas Second Edition		7,11
16	Final Exam			1,2,3,4,5,6,7,8,9,10,11



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D. COURSE MATERIAL

1. Textbook	Research Methodology and Scientific WritingC. George ThomasSecond Edition
2. Reference material	
3. Internet resources	<a href="https://pubmed.ncbi.nlm.nih.gov/">https://pubmed.ncbi.nlm.nih.gov/</a> <a href="https://www.researchgate.net/">https://www.researchgate.net/</a> <a href="https://scholar.google.com/">https://scholar.google.com/</a>