Course Specifications

Course Title:	*General Topology*
Course Code:	*23044363-3*
Program:	**Bachelor of Mathematics**
Department:	**Mathematics Department**
College:	*Jamoum University College*
Institution:	*Umm Al-Qura University*

Table of Contents

A. Course Identification

1. Credit hours: 3	

2. Course type

a. University ☐ College ☐ Department ***** Others ☐

b. Required ***** Elective ☐

3. Level/year at which this course is offered: 5th level

4. Pre-requisites for this course (if any)**:** Real Analysis (1)

5. Co-requisites for this course (if any)**:**

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	3	100%
2	Blended		
3	E-learning		
4	Correspondence		
5	Other		

7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
Contact Hours		
1	Lecture	45
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	45
Other Learning Hours *		
1	Study	
2	Assignments	
3	Library	
4	Projects/Research Essays/Theses	
5	Others (specify)	
	Total	

* The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

B. Course Objectives and Learning Outcomes

1. Course Description
1. Definition of topological spaces and examples .
2. Distinguish between open and closed sets .
3. Knowledge of topological equivalence consept and topological property.

2. Course Main Objective
1. Identify the continuous functions and the ability of classifying them over the topological and metric spaces.
2. Knowledge of compactness by a point, sequences and metric spaces.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	**Knowledge:**	
1.1	Improve the ability of formulating a true proofs	
1.2	Have the ability of making a right mathematical expression	
1.3		
1...		
2	**Skills :**	
2.1	Distinguish between mathematical concepts	
2.2		
2.3		
2...		
3	**Competence:**	
3.1	Understanding of mathematical concepts	
3.2		
3.3		
3...		

C. Course Content

No	List of Topics	Contact Hours
1	Topological Spaces: Definitions and examples .	2
2	Sets closure – Sets of partial spaces	2
3	Rules – the limited topological product – partial rules	2
4	The metric spaces : examples - the metric problem	3
5	Continuos Functions: Examples - Classification of continuos functions over the topological and metric spaces - topological Equivalance, Examples, Topological property.	3
6	Compact spaces: Examples, Compactness in R^n , Compactness by the endpoint, Compactness by sequences.	3
	Total	15

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge**		
1.1	Usage of the abstract mathematical concepts	Academic lectures . Research and Investigation .	Written tests.
1.2	Improve the ability of formulating a true proofs	Discussion and Conversation	Work papers. Oral tests .
1.3	Have the ability of making a right mathematical expression	Homework.	Solving Homework
2.0	**Skills**		
2.1	Distinguish between mathematical concepts.	Collaborative learning	Written tests.
2.2	Introduce mathematical equations.	Self-learning. Research	Oral tests .
…			
3.0	**Competence**		
3.1	Understanding of mathematical concepts	Lectures tutorials	
3.2			
…			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	oral test	3	5%
2	oral test	5	5%
3	written test	6	20%
4	oral presentation	8	
5	written test	10	20%
6	written test	15	40%
7			
8			

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	Foundations of General Topology, Ahmed Abdul Monsif Allaam, Dar Al Zaman for Publication , 1423.
Essential References Materials	Introduction to General Topology, Dr. Mohammed Abdul Moneim Esmael, King Saud University. General Topology, Kelly J. , Van Nostrand, Princeton New Jersey, 1955.
Electronic Materials	*http://www.mathramz.com/xyz/index.php.* *http://math.niu.edu.* *http://ntnu.no/conservation.*
Other Learning Materials	libraries

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classrooms
Technology Resources (A V, data show, Smart Board, software, etc.)	There is no.
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	There is no.

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	
Reference No.	
Date	