



مركز الاعتماد
و ضمان الجودة
ACCREDITATION & QUALITY ASSURANCE CENTER



The University of Jordan

Accreditation & Quality Assurance Center

COURSE Syllabus

Course Name: Topology

1	Course title	Topology
2	Course number	(0301961)
3	Credit hours (theory, practical)	3
	Contact hours (theory, practical)	3
4	Prerequisites/corequisites	None
5	Program title	Ph. D. in Mathematics
6	Program code	
7	Awarding institution	The University of Jordan
8	Faculty	Science
9	Department	Mathematics
10	Level of course	Obligatory course for Ph.D. Student
11	Year of study and semester (s)	1 st year
12	Final Qualification	Ph.D. in Mathematics
13	Other department (s) involved in teaching the course	None
14	Language of Instruction	English
15	Date of production/revision	16.10.2020

16. Course Coordinator:

Office numbers, office hours, phone numbers, and email addresses should be listed.

Prof. Hasan Z. Hdeib
Office number: 22107
E-mail: zahdeib@ju.edu.jo

17. Other instructors:

Office numbers, office hours, phone numbers, and email addresses should be listed.

None

18. Course Description:

Quotient spaces and quotient mappings, function spaces, compactifications, Stone- Čech compactification, perfect mappings, Lindelöf spaces, countably compact spaces, pseudocompact spaces and sequentially compact spaces, real compact spaces, paracompact spaces, countably paracompact spaces, weakly and strongly paracompact spaces.

19. Course aims and outcomes:**A- Aims:**

- 1- This course aims to provide the students with deep knowledge and famous theorems in different topics of general topology.
- 2- Another essential purpose of the course is to train the student to solve problems concerning the subjects discussed in the course.

B- Intended Learning Outcomes (ILOs): Upon successful completion of this course students will be able to ... to achieve the following outcomes:

A. Knowledge and Understanding Skills: Student is expected to

- A1. Master the basic concepts and theorems studied in this course.
- A2. Able to solve different kinds of problems concerning the subjects of the course ranging from simple to moderate in difficulty and increase students participation by letting the proof of some theorems as an exercises.

B. Intellectual Analytical and Cognitive Skills: Student is expected to

- B1. State and prove theorems included in this course.
- B2. Apply the theorems of this course to solve related problems.

C. Subject- Specific Skills: Student is expected to

- C1. Use their knowledge gained from the material of this course to solve different types of problems in general topology.

D. Creativity /Transferable Key Skills/Evaluation: Student is expected to

- D1. Able to do some research in general topology.

20. Topic Outline and Schedule:

Topic	Week	Instructor	Achieved ILOs	Evaluation Methods	Reference
Review	1				
Quotient spaces and quotient mappings	2+3				
Function space	4+5			Homework 1	
compactifications	6+7				
Lindelöf of spaces	8			Midterm Exam	
Countably compact, sequentially compact and pseudocompact	9+10				
Real compact	11			Homework 2	
Paracompact and countably paracompact	12+13				
Weakly and strongly paracompact	14+15			Homework 3	

21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following teaching and learning methods:

In order to succeed in this course, each student each student need to be an active participant in learning- both in class and out of class.

- Class time will be spent on lecture as well as discussion of homework problems and some group work
- To actively participate in class, you need to prepare by reading the text book and doing all assigned homework before class.
- You should be prepared to discuss your homework.
- You are encouraged to work together with other students and to ask questions and seek help from the professor, both in and out of class.

22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

ILO/s	Learning Methods	Evolution Methods	Related ILO/s to the program
	Lectures	Exam	
	Published Papers	Presentations	
		Home work	

23. Course Policies:

Class attendance of students at the beginning of the lecture is recommended.

Assignment is given to the students at regular intervals for them to solve and submit.
Late or no submission of assignments carries penalties or loss of grade points.

Absences recorded in each lecture with making excuses, if any.

24. Required equipment:

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25. References:

A- Required book (s), assigned reading and audio-visuals:

General Topology, Ryszard Engelking

B- Recommended books, materials, and media:

1- A first course in Topology, James R. Munkres.

2- General Topology, Stephen Willard.

26. Additional information:

Name of Course Coordinator: Dr. Hasan Hdeib Signature:-----Date: 19/10/2020

Head of curriculum committee/Department: Dr. ----- Signature: -----

Head of Department: Dr. Mohammed Al Raqab Signature: -----

Head of curriculum committee/Faculty: Dr. Ahmaed Alzghoul Signature: -----

Dean: Dr. Fuad Kittaneh Signature: -----

Copy to:

Head of Department
Assistant Dean for Quality Assurance
Course File