



Form: Course Syllabus	Form Number	EXC-01-02-02A
	Issue Number and Date	2/3/24/2022/2963 05/12/2022
	Number and Date of Revision or Modification	
	Deans Council Approval Decision Number	2/3/24/2023
	The Date of the Deans Council Approval Decision	23/01/2023
	Number of Pages	06

1.	Course Title	Special Studies in Mathematics
2.	Course Number	0301781
3.	Credit Hours (Theory, Practical)	3
	Contact Hours (Theory, Practical)	3
4.	Prerequisites/ Corequisites	None
5.	Program Title	Master in Mathematics
6.	Program Code	
7.	School/ Center	Science
8.	Department	Mathematics
9.	Course Level	Master
10.	Year of Study and Semester (s)	2 nd year.
11.	Other Department(s) Involved in Teaching the Course	None
12.	Main Learning Language	English
13.	Learning Types	<input type="checkbox"/> Face to face learning <input type="checkbox"/> Blended <input checked="" type="checkbox"/> Fully online
14.	Online Platforms(s)	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams
15.	Issuing Date	13 – 01 – 2025
16.	Revision Date	

17. Course Coordinator:

Name: Prof. Omar Abughneim	Contact hours:
Office number: M330	Phone number: 22100
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18. Other Instructors:

Name:
Office number:
Phone number:
Email:
Contact hours:
Name:
Office number:
Phone number:
Email:
Contact hours:

19. Course Description:

As stated in the approved study plan.
Part I: Research in mathematics Types of research: (open problems, generalizations and extensions, investigating new concepts, remarkable research, questions and answers in certain field) Methods of research: (proofs, computer management) Types of Journals; Writing a research paper; Publication Process
Part II: The instructor should discuss some special topics in a specific field and present some research papers in the class room.
Part III: Each student must represent a detailed lecture using at least one research paper.

20. Program Student Outcomes (SO's):

(To be used in designing the matrix linking the intended learning outcomes of the course with the intended learning outcomes of the program)

SO1: Read, analyze and write logical arguments to prove mathematical and statistical concepts and theorems.

SO2: Analyze and apply different mathematical algorithms and theories and use modern techniques in both teaching and research.



SO3: Communicate with mathematical and statistical ideas clearly and consistently, in writing and verbally.

SO4: Formulate mathematical and statistical problems by modeling real-life problems, and solve them theoretically and/or numerically using technological tools.

SO5: Adhere to ethical standards and good conduct in accordance with the rules and standards.

SO6: Apply knowledge and mathematical tools and think creatively to solve real life problems and then verify and interpret the results correctly.

SO7: Work effectively within work teams and communicate scientific knowledge and results with peers and experts in the field.

SO8: Apply methodologies and ethics of scientific research in preparation of scientific research in mathematics field.

21. Course Intended Learning Outcomes (CLO's):

(Upon completion of the course, the student will be able to achieve the following intended learning outcomes)

CLO 1: Know the types of research

CLO 2: Know the methods of research

CLO 3: Know the types of Journals; writing a research paper; publication Process

CLO 4: Read, understand and analyze a research article

CLO 5: Represents a seminar in front of his colleges and teachers

Course CLOs	The learning levels to be achieved					
	Remembering	Understanding	Applying	Analysing	evaluating	Creating
CLO 1		•		•		
CLO 2		•		•	•	
CLO 3		•			•	•
CLO 4		•	•	•		
CLO 5			•			•



22. The matrix linking the intended learning outcomes of the course with the intended learning outcomes of the program:

Course CLO's	Program SO's							
	SO (1)	SO (2)	SO (3)	SO (4)	SO (5)	SO (6)	SO (7)	SO (8)
CLO (1)	•							
CLO (2)	•							
CLO (3)								•
CLO (4)	•	•	•	•		•		
CLO (5)			•		•		•	

23. Topic Outline and Schedule:

Week	Lecture	Topic	CLO/s Linked to the Topic	Learning Types Face to Face (FF) Blended (BL) Fully Online (FO)	Platform Used	Synchronous (S) Asynchronous (A)	Evaluation Methods	Learning Resources
1+2		Type of research	1	Fully Online	Moodle and Microsoft Teams	S	Exams and seminars	Papers provided by the instructor
3+4		Methods of research	1	Fully Online	Moodle and Microsoft Teams	S	Exams and seminars	Papers provided by the instructor
5+6		Types of Journals; Writing a research paper; Publication Process	8	Fully Online	Moodle and Microsoft Teams	S	Exams and seminars	Papers provided by the instructor
7-9		Discussing research papers	1+2 +3+ 4+6	Fully Online	Moodle and Microsoft Teams	S	Exams and seminars	Papers provided by the instructor



10-15		Students seminars	3+5 +7	Fully Online	Moodle and Microsoft Teams	S	seminars	Papers provided by the instructor
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24. Evaluation Methods:

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

Evaluation Activity	Mark	Topic(s)	SO's	Period (Week)	Platform
First Exam	10	Types and methods of research, Journals		5	On Campus
Second Exam	20	Topics presented by the instructor		9	On Campus
Seminar	30	Prepared by the students		10-15	Microsoft Teams
Final Exam	40			16	On Campus

25. Course Requirements:

Students should have a computer, internet connection, webcam, account on Microsoft Teams.

26. Course Policies:

1. The student is not allowed to take the course and its pre-requisite in the same time.
2. Attendance is absolutely essential to succeed in this course. You are expected to attend every class; please notify your instructor if you know you are going to be absent. All exams must be taken at the scheduled time. Exceptions will be made only in extreme circumstances, by prior arrangement with the instructor.
3. If a student is absent for more than 10% of lectures without an excuse of sickness or due to other insurmountable difficulty, then he/she shall be barred from the final examination also he/she will get a failing grade in this course.
4. Medical certificates shall be given to the University Physician to be authorized by him. They should be presented to the Dean of the Faculty within two weeks of the student's ceasing to attend classes.
5. Test papers shall be returned to students after correction. His/her mark is considered final after a lapse of one week following their return.
6. Cheating is prohibited. The University of Jordan regulations on cheating will be applied to any student who cheats in exams or on home works.

**27. References:**

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

B- Recommended books, materials, and media:

Several articles will be assigned by the instructor

28. Additional information:

Name of the Instructor or the Course Coordinator: Prof. Omar AbuGhneim	Signature:	Date: 13 – 1– 2025
Name of the Head of Quality Assurance Committee/ Department: Prof. Manal Ghanem	Signature:	Date:
Name of the Head of Department: Prof. Baha Alzalg	Signature:	Date:
Name of the Head of Quality Assurance Committee/ School of Science: Prof. Emad A. Abuosba	Signature:	Date:
Name of the Dean or the Director: Prof. Mahmoud I. Jaghoub	Signature:	Date: