

T-106 2022 Annual Program Report

Program Name: Master of Science in Mathematics

Program Code (as per Saudi university ranking): **054101**

Qualification Level: 7

Department: Mathematics and Statistics

College: Science

Institution: Imam Mohammad Ibn Saud Islamic University

Academic Year: 2022/2023

Main Location: Main campus

Branches offering the Program (if any):

None





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A. Program Statistics

Item	Number
Number of students enrolled in the program	13
Number of students who started the program (in reporting year)	10
Number of students who completed the program	2

B. Program Assessment

1. Program Learning Outcomes Assessment and analysis according to PLOs assessment plan *

#	Program Learning Outcomes	Assessment Methods (Direct and Indirect)	Targeted Performance (%)	Assessment Results		
Knowledge and Understanding						
K1	Demonstrate a solid understanding of advanced topics in Mathematics.	D1	20%	In progress (exam not yet done)		
K2	Outline the areas of specialization through studying specific topics relevant to research in Mathematics.	I1	68%	66%		
Skills	5					
S1	Apply advanced mathematical knowledge to analyse problems and develop innovative solutions.	D5	50%	58%		
S2	Develop critical skills with regard to literature searching, appraising and evaluating from a variety of sources and synthesizing the results.	D2	100%	100%		
S3	Communicate in a clear and concise manner orally, on paper and using IT.	D3	60%	64%		
S4	Make efficient use of computer for acquiring, analysing,	13	75%	75%		



	and presenting information.			
	es, autonomy, and res	ponsibility		
V1	Demonstrate integrity, professional and academic ethics, participation in finding constructive solutions to some societal issues and a commitment to responsible citizenship.	12	70%	75%
V2	Self-evaluate of the level of learning and performance, insist on achievement and excellence, and make logical decisions supported by evidence and arguments independently.	D2	100%	100%
V3	Lead teamwork with functional flexibility and effectiveness, and take responsibility for professional development, participating in developing the group's performance, and enhancing the quality of life.	D4	70%	70%

^{*}Attach a separate report on the program learning outcomes assessment results for male and female sections and for each branch (**if any**).

Strengths:

- The accurate assessment of the Program Learning Outcomes helps to find and detect the point of weakness in the academic program.
- The Courses Learning Outcomes of the key courses need revising to serve the Program Learning Outcomes.

Aspects that need improvement with priorities:

More attention MUST be paid to Courses Learning Outcomes, especially those key courses.





Revise Courses Learning Outcomes for key courses with paying more attention while delivering these Courses Learning Outcomes to improve Program Learning Outcomes assessment.

2. Evaluation of Courses

Course Code	Course Title	Number of Students Who Evaluated the Course	Percentage of Participants	Evaluation Results (out of 10)	Developmental Recommendations
MAT 611	Measure and Integration	3	23%	8.76	None
MAT 621	Advanced Linear Algebra	3	23%	8.76	None
MAT 641	Numerical Analysis	3	23%	8.76	None
MAT 613	Functional Analysis	3	23%	8.76	None
MAT 623	Algebra (1)	3	23%	8.76	None
MAT 631	Partial Differential Equations	3	23%	8.76	None
MAT 671	Topology	3	23%	8.76	None
MAT 624	Algebra (2)	3	23%	8.76	None

3. Students Evaluation of Program Quality

Evaluation Date: End of 3rd Trimester 2022/2023	Number of Participants: 537
Students Feedback	Program Response
Strengths: • Most of the respondent students are satisfied with the delivered courses.	None
Areas of Improvement: • None	None
Suggestions for improvement: None	None

4. Scientific research and innovation during the reporting year

Activities Implemented	Number
Published scientific research	394
Current research projects	9
conferences organized by the program	0
Seminars held by the program	4





Conferences attendees	8
Seminars attendees	64

Discussion and analysis of scientific research and innovation activities

Weakness of some research metrics due to weakness in the female section. However, an improvement has been done in this issue.

5. Community Partnership

Activities Implemented	Brief Description*
Imam University blood donation campaign in cooperation with King Fahd Medical City	Imam Mohammad Ibn Saud Islamic University organized a blood donation initiative, and it was launched on Sunday, 4/12/202, for two weeks. Its employees, as well as its students, took the initiative to donate blood, which is a noble humanitarian act, as it contributes to saving the lives of thousands of patients who are in dire need of blood transfusions.
Extracurricular activities (Graduation Day)	The department participates in the graduation day organized by the university.
Participation in National Day celebrations	The department participated in National Day celebrations at the university and College of Science levels.
Celebrating Foundation Day	The department participated in the Foundation Day, which celebrates the foundation of the kingdom of Saudi Arabia, at the university and College of Science levels.

Comment on community partnership activities*

Male Faculty, students, and administrative staff were more involved in these activities.

6. Other Evaluation (if any) None

(e.g., independent reviewer, program advisory committee, and stakeholders (e.g., faculty members, alumni, and employers)

Evaluation method:	Date:	Number of Participants:
Summary of Evaluator Rev	iew	Program Response
Strengths:		
•		
Points for Improvements:		
•		



^{*}including timing of implementation, number of participants, and outcomes.

^{**}including overall evaluation of the program's performance in these activities (if any).

	for development:				
•					
*Attach indepen	ndent reviewer's rep	ort and stakeholde	ers' survey report	ts (if any).	

C. Program Key Performance Indicators (KPIs)

Including the key performance indicators required by the NCAAA.

No	KPI	Targeted Value	Actual Value	Internal Benchmark	Analysis	New Target
1	Percentage of achieved indicators of the program operational plan objectives	90%	86%	93%	Good Achievement	90%
2	Students' Evaluation of quality of learning experience in the program	3.9/5	4.38/5	4.23/5	Good Achievement	3.9/5
3	Students' evaluation of the quality of the courses	3.6/5	4.38/5	4.35/5	Good Achievement	4/5
4	Students' evaluation of the quality of scientific supervision	4.70	4.80/5	4.60/5	Excellent Achievement	4.70/5
5	Average time for students' graduation	2.5 years	2.6 years	2.30 years	Good Achievement	2.5 years
6	Rate of students dropping out of the program	0.3	0.46	0.62	Needs improvement	0.3
7	Graduates' employability and enrollment in PhD programs	90%	50% (based on obtained replies)	80%	Needs improvement	90%
8	Employers' evaluation of the program graduates' competency	4.50	4.5/5	In progress	Good Achievement	4.50/5
9	Students' satisfaction with the provided services	4.60	3.88/5	3.50/5	Needs improvement	4.60/5



10	Ratio of students to faculty members	2:1	2:1	2:1	Good Achievement	2:1
11	Percentage of faculty members' distribution based on academic ranking	70% Prof. 30% Assoc. Prof.	75% Prof. 25% Assoc. Prof	70% Prof. 30% Assoc. Prof.	Excellent Achievement	70% Prof. 30% Assoc. Prof.
12	Proportion of faculty members leaving the program	0.1	0.00	0.08	Excellent Achievement	0.1
13	Satisfaction of beneficiaries with learning resources	4.30	4.18/5	3.95/5	Good Achievement	4.30
14	Satisfaction of beneficiaries with research facilities and equipment	4.20	4.10/5	2.50/5	Needs improvement	4.20
15	Percentage of publications of faculty members	70%	63%	61%	Weakness in the female section	50%
16	Rate of published research per faculty member	2.50	6.35	1.74	Weakness in the female section	2.5
17	Citations rate in refereed journals per faculty member	60	83	50	Weakness in the female section	60
18	Percentage of students' publication	5%	0%	9%	Good Achievement (Usually, MSc students do not publish papers)	5%
19	Number of patents, innovative products, and	0	0	1.00	Patents in Mathematics are rare	1.00





awards of					
excellence					
Comments on the Program KPIs and Benchmarks results:					

Weakness of some research metrics due to weakness in the female section

D. Challenges and difficulties encountered by the program (if any)

Teaching	There is a need for more specialized faculty.		
Assessment	None		
Guidance and counseling	None		
Learning Resources	None		
Faculty	Since many new programs (BSc Applied Statistics, PhD Mathematics, BSc Actuarial Sciences and Financial Mathematics) has been or will be implemented, the teaching load per faculty has increased, and there is a need to recruit more faculties.		
Research Activities	There is a gap between male and female sections in the research activities but we can see a great improvement now through publications and promotions within female faculties.		
Others	None		

E. Program development Plan

No.	Priorities for Improvement	Actions	Action Responsibility
1	Having more opportunities for our students to continue their studies	Implementing the PhD in Mathematics program	Head of Dept.
2	Attracting distinguished staff for MSc program	Recruiting distinguished teaching staff to contribute to the implementation of graduate programs.	Head of Dept.

Attach any unachieved improvement plans from previous report.

The annual program report needs to be discussed in department council





F. Approval of Annual Program Report

COUNCIL / COMMITTEE	DEPARTMENT COUNCIL	COLLEGE COUNCIL
REFERENCE NO.	10/1445	11/1445
DATE:	08/04/1445 (23/10/2023)	23/04/1445 (07/11/2023)

