







T-106 2022

## Annual Program Report

#### Program Name: MS in Cyber security & Digital Forensics

Program Code (as per Saudi university ranking): Enter Program Code.

Qualification Level: M.Sc

Department: IT

College: College of Computer & Information Sciences

Institution: Majmaah University

Academic Year: 2023

Main Location: College of Computer & Information Sciences

Branches offering the Program (if any)N/A :

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- •
- •





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### A. Program Statistics

Item	Number
Number of students enrolled in the program	16
Number of students who started the program (in reporting year)	16
Number of students who completed the program	16

#### **B. Program Assessment**

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

#	Program LearningAssessment MethodsTargetedOutcomes(Direct and Indirect)Performance(%)			Assessment Results	
Know	wledge and Understand	ding			
		Class Test, Mid Exam, Final Exam	70	85	
		Skills			
S1	Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions	Class Test, Mid Exam, Final Exam	70	85	
S2	Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline	Lab Based Assignments, Mini Project	70	86	
<b>S</b> 3	Communicate effectively in a variety	Group Assignments, Mini Project	70	95	





S4Identify and analyze user needs and to take them into account in the selection, creation, integration, evaluation, and administration of computing-based systems. [IT]Case Study Implementation/ Laboratory /Mini project7087S5An ability to apply knowledge of computing and mathematics appropriate to the disciplineClass Test, Mid Exam, Final Exam7095V1Function effectively as a member or leader of a team engaged in activities appropriate to the program's disciplineOral or Written Communication, Seminar7091V2Recognize professional responsibilities and make informed judgments in ethical principlesClass Test, Mid Exam, Final Exam7087V3Oral or Written computing practice based on legal and ethical principlesClass Test, Mid Exam, Final Exam7087		of professional contexts			
knowledge computing and mathematics appropriate to the disciplineClass Test, Mid Exam, Final ExamV1Function effectively as a member or leader of a team engaged in activities appropriate to the program's disciplineOral or Written Communication, Seminar7091V2Recognize professional responsibilities and make informed judgments emakeClass Test, Mid Exam, Final Exam7091V2Recognize professional responsibilities and make informed emakeClass Test, Mid Exam, Final Exam7087	S4	user needs and to take them into account in the selection, creation, integration, evaluation, and administration of computing-based	Implementation/	70	87
V1Function effectively as a member or leader of a team engaged in activities appropriate to the program's disciplineOral or Written Communication, Seminar7091V2Recognize professional responsibilities and judgments in computing practice based on legal and ethical principlesClass Test, Mid Exam, Final Exam7087	S5	knowledge of computing and mathematics appropriate to the		70	95
as a member or leader of a team engaged in activities appropriate to the program's disciplineOral or Written Communication, SeminarImage: Communication appropriate appropriate to the professional responsibilities and make informed 		V	/alues, autonomy, and resp	onsibility	
professionalresponsibilities andmake informedjudgments inExamcomputing practicebased on legal andethical principles	V1	as a member or leader of a team engaged in activities appropriate to the		70	91
V3	V2	professional responsibilities and make informed		70	87
		computing practice based on legal and			

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

Strengths:

All student out comes (PLOs) attain the exceeding expectation (above than 80%)

Aspects that need improvement with priorities: Increase the Target performance (75%)



E. Evalu	ation of Course				
Course Code	Course Title	Number of Students Who Evaluated the Course	Percentage of Participants	Evaluation Results (out of 10)	Developmental Recommendations
	Cybersecurity				
IT 601	Foundations	17	100	7.7	Satisfactory
	Digital Forensics				Satisfactory
	Technology and				
IT 602	Practices	17	100	7.9	
	Cybersecurity				Satisfactory
	Technology and				
IT 604	Management	17	100	7.9	
	Research				Satisfactory
	Methods and				
	Engineering				
IT 605	Statistics	16	100	9.5	
					Satisfactory
	Network and				
IT 611	System Security	16	100	8.2	
	Malware				Satisfactory
	Development and				
IT 624	Countermeasures	16	100	8	
	Computer				Satisfactory
	Forensics and				
IT 621	Investigations	16	100	8	
IT 650	Research Project	16	100	9.4	Satisfactory

#### 2. Evaluation of Courses





#### 3. Students Evaluation of Program Quality

Evaluation Date:	Number of Participants:13
Students Feedback	Program Response
<ul> <li>Strengths:</li> <li>Curriculum is in line with current market requirements.</li> <li>Scientific supervision</li> <li>learning resources</li> </ul>	<ul> <li>Curriculum is updated as per market demand</li> <li>Research Project is supervised by Senior and learned faculties</li> </ul>
<ul> <li>Areas of Improvement:</li> <li>laboratories were equipped with PC and Software</li> </ul>	<ul> <li>Cyber security laboratories will be setup equipped with PC and Software</li> </ul>
Suggestions for improvement:	<ul> <li>Academic guidance will be given to outgoing students</li> </ul>

#### 4. Scientific research and innovation during the reporting year

Activities Implemented	Number		
Published scientific research	Number		
Current research projects	95(SCI-80, Others-15)		
Conferences organized by the program	-		
Seminars held by the program	2		
Conferences attendees			
Seminars attendees	150		
Discussion and analysis of scientific research and innovation activities			

 At least one Conference will organized in latest field of IT so that attendees share, collaborate, and presented their work and engagement in education, networking, and community-building opportunities.





5. community rartifier	5. Community Partnership			
Activities Implemented	Brief Description*			
Cyber Fraud and New Educational Challenges	Seminar Workshop organized by, Dr.Shailendra Mishra,Dr.A.R Khan and Master Students by inviting Prof Uttam Ghosh, Meharry Medical College as an associate professor of cybersecurity in the School of Applied Computational Sciences and interact with Community & students to explore to career path as advancement in AI.ML and Cybersecurty			
Placement training on Cyber Security	Workshop organized by Dr.Shabnam Aslam, Dr.Shailendra Mishra and Dr.Ahamed Razakhan by inviting Alumni working in Cyber Security Agency to speak about the Cyber security practices and interact with students to explore to career path towards job.			

Comment on community partnership activities\*\*

Number students and Faculty participation can be improved.

\*including timing of implementation, number of participants, and outcomes.

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

#### 6. Other Evaluation (if any)

5 Community Partnership

#### Nil

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

\*Attach independent reviewer's report and stakeholders' survey reports (if any).

Evaluation method:	Date:	Number of Participants:
Summary of Evaluator Review		Program Response
Strengths:		
Points for Improvements:		
Suggestions for development:		





#### C. Program Key Performance Indicators (KPIs)

Including the key performance indicators required by the NCAAA.

Comments on the Program KPIs and Benchmarks results:

KPI		KPI Results				
No.	KPI	Actual	Target Benchmark	Internal Benchmark	External Benchmark*	
KPI- PG-1	Students' Evaluation of Quality of learning experience in the Program	4.1	4.5	4.3	4.45	
KPI- PG-2	Students' evaluation of the quality of the courses	4.4	4.5	4.5	4.34	
KPI- PG-3	Students' evaluation of the quality of academic supervision	100%	80%	80%	94%	
KPI- PG-4	Average time for students' graduation	2 years	2 years	2 years	2 Years	
KPI- PG-5	Rate of students dropping out of the program	21% (In First Semester)	10%	22% (In First Semester)	5%	
KPI- PG-6	Employers' evaluation of the program graduates' competency	Not Measured	4	Not Measured	Not available	





KPI- PG-7	Students' satisfaction with services provided	60%	90%	86%	89.6%
KPI- PG-8	Ratio of students to faculty members	5:1	6:1	6:1	3:1
KPI- PG-9	Percentage of publications of faculty members	100%	60%	100%	79.17%
KPI- PG- 10	Rate of published research per faculty member	5	1	5	2.33
KPI- PG- 11	Citations rate in refereed journals per faculty member	3.01	1	3	1.07
KPI- PG- 12	Percentage of students' publication	75%	100%	75%	Not Available
KPI- PG- 13	Number of patents, innovative products, and awards of excellence	1	1	0	1

\*The King Abdulaziz University's MS Cybersecurity program is chosen as external benchmark as it is close to our program.

- KPI PG-01 attained 4.1 on 5 point scale against targeted value 4.5, focus on KPI 01( Student Learning Experience) ,more services will be provided regarding teaching and learning ,so increase the satisfaction to KPI PG -01.
- KPI 02-KPI 04-Attained the targeted value.

\*\*\*\*



- KPI-PG-5(Rate of students dropping out of the program) was 21%, against targeted vale in (In First Semester-10%), due to poor English writing and communication skills, In admission policy, some cutoff must be in place like (TOFEL, ILETS etc.).
- KPI-PG-6(Employers' evaluation of the program graduates' competency) Not Measured , must be measured in the coming Semester/Year
- KPI-PG-7(Students' satisfaction with services provided) attainment was 60% against targeted value 90%, more services will be provided regarding services offered ( Lounge, Separate Room for females, Cafeteria, Reading Place, Library to increase the satisfaction to KPI PG -07).
- KPI -PG-08 to KPI -PG-11 Attained the targeted value.
- KPI-PG-12 Percentage of students' publication was 75% against targeted 100%. Motivate students from the beginning, and policy must be in place to give awards for publication.
- KPI-PG-13 Number of patents, innovative products, and awards of excellence One student Project got award of Excellence from University in 2023.

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

Assessment
Guidance and counseling
Learning Resources
faculty
Research Activities
Others





### E. Program development Plan

No.	Priorities for Improvement	Actions	Action Responsibility
1	Workshop on Blackboard for faculty members	Done	Dr.A.R.Khan
2	Workshop on Program Quality improvement for faculty members	Done	Dr.Jaydev
3	Workshop on new NCAAA Report and Specification	Done	Dr.JayDev/Dr.Mishra
4	Workshop on Course Report preparation for new faculty members	Done	Dr.JayDev/Dr.Mishra
5	Workshop for Community to aware about cybercrime & Cyber Fraud	Done	Dr.Mishra/Dr.Khan
6	Workshop for students to publish papers in scientific journals and conferences	Done	Dr.Shakeel

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	IT DEPARTMENT COUNCIL
REFERENCE NO.	11
DATE:	1445-04-29

Alodhyani

