



T-106
2022

Annual Program Report





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Program Name: Master of Data Science

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

Qualification Level: Master Program

Department: Information Systems

College: College of Engineering & Computer Sciences

Institution: Prince Sattam Bin Abdulaziz University

Academic Year: 2019-2020

Main Location: Alkharj

Branches offering the Program (if any):

- N/A



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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)	13
Number of students who completed the program	11

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	Recognize theories of statistics, data visualization, computing, and mathematics appropriate to the data science discipline	Direct/Indirect assessment	70% of students achieve 70% of mark	86.53
K2	Explain how the exceptionally enormous amounts of data collected by modern organizations can be used to review, redesign, and improve processes	Direct/Indirect assessment	70% of students achieve 70% of mark	83.04
K3				
K..				
Skills				
S1	Analyze existing processes based on interviewing, observation, documentation analysis, and other similar methods.	Direct/Indirect assessment	70% of students achieve 70% of mark	84.04
S2	Implement knowledge of	Direct/Indirect assessment	70% of students	89.42





	computing, statistics, and mathematics appropriate to the discipline.		achieve 70% of mark	
S3				
S..				
Values, autonomy, and responsibility				
V1	Examine the ethical, professional, and social aspects of Data science and its application.	Direct/Indirect assessment	70% of students achieve 70% of mark	96.19
V2				
V3				
V..				

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

[Program learning outcomes assessment result report](#)

Strengths:

- The result of program learning outcomes assessment was overwhelming and outstanding.
- Students came from their profession with high expertise in the field of Information systems.

Aspects that need improvement with priorities:

- All the PLOs result have exceeded the target.
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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
IS611	Advanced data science	12	92.3%	9	None
IS612	Advanced topic in database systems	12	92.3%	9	None





Course Code	Course Title	Number of Students Who Evaluated the Course	Percentage of Participants	Evaluation Results (out of 10)	Developmental Recommendations
IS613	Programming for data science	7	53.8%	9.6	None
IS621	Advanced data mining	8	61.5%	7.4	None
IS622	Data analysis using applied statistics	7	53.8%	9.4	Add lab to this course great course, include python code in this course will be good also
IS657	Business intelligence	8	61.5%	9.2	great course, include python code in this course will be good also

3. Students Evaluation of Program Quality

Evaluation Date:	Number of Participants:
Students Feedback	Program Response
<p>Strengths:</p> <ul style="list-style-type: none"> The results of indirect assessment were outstanding. 	None
<p>Areas of Improvement:</p> <ul style="list-style-type: none"> The lab 	The program will provide a full lab equipment and software to the students of master of data science.
<p>Suggestions for improvement:</p> <ul style="list-style-type: none"> Addition of python lab in IS622 and IS657 	Python language lab will be prepare for the students.

4. Scientific research and innovation during the reporting year

Activities Implemented	Number
Published scientific research	None
Current research projects	None





conferences organized by the program	None
Seminars held by the program	None
Conferences attendees	None
Seminars attendees	None
Discussion and analysis of scientific research and innovation activities	
The master of data science is a new born program started in 2019, this the first year whereas, no capstone project in the first year.	

5. Community Partnership

Activities Implemented	Brief Description*
None	None
None	None
Comment on community partnership activities**	
The master of data science is a new born program started in 2019	

* 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)

(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 Review		Program Response
Strengths: ● Courses are good. ●		None.
Points for Improvements: ● Python lab ●		Program will provide python lab for students.
Suggestions for development: ● Intensify the empirical part ● Prepare python lab.		Program will study the suggestions to develop the empirical part.





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





C. Program Key Performance Indicators (KPIs)

Including the key performance indicators required by the NCAAA.

No	KPI	Target ed Value	Actual Value	Internal Benchmark	Analysis	New Target
Code	Key Performance Indicators	Actual Benchmark	Target Benchmark	Internal Benchmark	External Benchmark	New Target Benchmark
KPI-PG-1	Percentage of achieved indicators of the program operational plan objectives	70%	95%	NA	NA	95%
KPI-PG-2	Students' Evaluation of quality of learning experience in the program	4	3.75	NA	NA	4.5
KPI- PG-3	Students' evaluation of the quality of the courses	4.5	3.75	NA	NA	4.45
KPI- PG-4	Students' evaluation of the quality of scientific supervision	4.1	3.75	NA	NA	4.3
KPI- PG-5	Average time for students' graduation	4	4	NA	NA	4
KPI- PG-6	Rate of students dropping out of the program	15.3%	0%	NA	NA	0%
KPI- PG-7	Graduates' employability	73%	90%	NA	NA	90%
KPI- PG-8	Employers' evaluation of the program	4.9	3.75	NA	NA	4.5



	graduates' competency					
KPI-PG-9	Students' satisfaction with the provided services	4	3.75	NA	NA	4
KPI-PG-10	Ratio of students to faculty members	1.3:1	1:1	NA	NA	1:1
KPI-PG-11	Percentage of faculty members' distribution based on academic ranking	Prof: 0% Assoc.: 28.5% Assist: 71%	Prof: 22.9% Assoc.: 22.9% Assist: 54.1%	NA	NA	Prof: 22.9% Assoc.: 43.8% Assist: 33.3% Male: 50% Female: 50%
KPI-PG-12	Proportion of faculty members leaving the program	28.6%	0%	NA	NA	0%
KPI-PG-13	Satisfaction of beneficiaries with learning resources	2.3	3.75	NA	NA	3.75
KPI-PG-14	Satisfaction of beneficiaries with research facilities and equipment	3	3.75	NA	NA	4
KPI-PG-15	Percentage of publications	100%	75%	NA	NA	90%



	of faculty members					
KPI-PG-16	Rate of published research per faculty member	1.4:1	2:1	NA	NA	3:1
KPI-PG-17	Citations rate in refereed journals per faculty member	19.5:1	2:1	NA	NA	25:1
KPI-PG-18	Percentage of students' publication	45%	50%	NA	NA	50%
KPI-PG-19	Number of patents, innovative products, and awards of excellence	0	1	NA	NA	1

Comments on the Program KPIs and Benchmarks results:



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

Teaching	Offer labs and provide students with course materials (Slides)
Assessment	No difficulties.
Guidance and counseling	No difficulties.
Learning Resources	Intensify the empirical part, and labs. Offering new tools in Data science.
faculty	None.
Research Activities	In the first year, there is no capstone project.
Others	None.

E. Program development Plan

No.	Priorities for Improvement	Actions	Action Responsibility
1	Lab	Research lab	Program Chairman
2	lab	Python lab	Program Chairman
3	Staffing	Prof. and Associate prof.	Faculties polarization committee.

Attach any unachieved improvement plans from previous report.

This is the first report.

The annual program report needs to be discussed in department council

F. Approval of Annual Program Report

COUNCIL / COMMITTEE	15
REFERENCE NO.	NUMBER 15 DATED 15/06/2020
DATE:	15/06/2020

