Annual Program Report

— (Bachelor)

Program: **B. Sc. in Mathematics**	
Program Code (as per Saudi Standard Classification of Educational Levels and Specializations): 280101	
Qualification Level: **Level** 6	
Department: **Mathematics**	
College: **Al-Darb University College**	
Institution: **Jazan University**	
Academic Year: **2023, 1444**	
Main Location: **Main Campus in Jazan**	

Branches offering the Program (if any):

- …… **Al-Darb University College**
- …………………………………….
- …………………………………….

Table of Contents

A. Program Statistics

Item	Number		
Number of students enrolled in the program	Term1	Term2	Term3
	193	181	160
Number of students who started the program (in reporting year)	Term1	Term2	Term3
	187	174	158
	المتسرب=6	المتسرب=7	المتسرب=2
Number of students who completed the program	Term1	Term2	Term3
	0%	13%	98.75

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					
						Direct			Indirect		
		2023 (Direct)	2023 (Indirect)	Direct	indirect	2023-1 Direct	2023-2 Direct	2023-3 Direct	20231 Indirect	2023-2 Indirect	2023-3 Indirect
Knowledge and Understanding											
K1	Distinguish mathematical concepts relevant to pure and applied mathematics.	Quizzes, Written exam	CLOs Questionnaire	4	5	4.47	4.29	4.574448	5.00	4.54	5
K2	Identify background, features and structure of mathematical problems.	Quizzes, Written exam,	CLOs Questionnaire	4	5	4.65	4.12	4.62961	5.00	4.54	5
K3	Explain required notations and concepts.	Quizzes, Written exam,	CLOs Questionnaire	4	5	4.04	4.22	4.424111	5.00	4.35	5
K..											
Skills											
S1	Apply aspects relevant to course content.	Quizzes, Written exam	CLOs Questionnaire	4	5	4.33	3.99	4.2959	5.00	4.37	5
S2	Compute and validate rates/quantities and	Quizzes, Written exam,	CLOs Questionnaire	4	5	4.36	4.09	4.3889	5.00	4.42	5

	Approximate Solutions.									
S3	Apply various math rules, techniques and theorems in applications.	Quizzes, Written exam,	CLOs Questionnaire	**5** 4	3.90	4.01	4.2381	5.00	4.22	5
S..	Solve mathematical problems	Quizzes, Written exam	CLOs Questionnaire	**5** 4	4.29	4.20	3.6310	5.00	4.43	5
Values, autonomy, and responsibility										
V1	Cultivate a mathematical attitude and nurture the interest.	Quizzes, Written exam	CLOs Questionnaire	**5** 4	5.00	4.44	5	5.00	4.79	5
V2	Realize the importance of responsibilities through different modes of practice, competition and related activities.	Quizzes, Written exam,	CLOs Questionnaire	**5** 4	3.89	4.44	5	5.00	4.37	5
V3	Inculcating values and ethics in thought, expression and	Quizzes, Written exam,	CLOs Questionnaire	**5** 4	4.94	4.44	5	5.00	4.77	5
V..										

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

Strengths:

Assessment PLOs-2023	K1	K2	K3	S1	S2	S3	S4	V1	V2	V3	All average	Comment
Direct	4.4	4.5	4.2	4.2	4.3	4.04	4.04	4.8	4.44	4.79	4.37	satisfactory
Indirect	4.45	4.47	4.23	4.20	4.28	4.05	4.04	4.81	4.44	4.79	4.38	satisfactory

- Direct Assessment meets the indirect Assessments
The average of the outcome of All is Satisfactory

Aspects that need improvement with priorities:

Apply various mathematical rules, techniques and theorems in Application.
The average of the direct outcome of S3.

2. Students Evaluation of Courses

Course Code	Course Title	Number of Students Who Evaluated the Course			Percentage of Participants			Evaluation Results			Developmental Recommendations
		20231	20232	20233	20231	20232	20233	20231	20232	20233	
Math-101	General Mathematics			14			87.5			3.92	
Math-211	Calculus (1)	32		11	79.88		91.7	4.42		4.52	
Math-212	Calculus(2)			13			86.7			3.74	
Math-221	Basis of mathematics	27	11		100	72.73		4.42	5		
Math-222	Abstract algebra(1)	11	17	10	70	74	77	4.5	2.63	4.25	
Math-241	Analytic geometry	29	-		79.31	-		4.35	-		
Stat-251	Mathematical statistics	30	8	4	78	92	80	5	04.04	3.44	
Math-261	Static	6	26		83.3	84.61		5	4.77		
Math-313	Calculus(3)	28	31	10	100	100	83	3.86	4.9	4.03	
Math-314	Complex Analysis		11	5		79	83		04.05	4.26	
Math-315	Real Analysis(1)	8	16		100	93.75		5	4.33		
Math-316	Numerical Analysis(1)	9		7	100		64	4		4.30	
Math-323	Abstract algebra(2)	35	7	10	97	54	67	4	3.77	3.30	
Math-324	Linear Algebra	21	13	15	83	84	85	4.14	4.18	4.27	
Math-331	Differential equations(1)	18	20	7	100	90	77	5	3.60	4.16	
Math-332	Differential equations(2)	17	13	16	80	75	84	3.94	4.11	3.43	
Stat-352	Probability Theory	9	13	15	75	92	83	4.41	4.54	3.77	
Math-417	Real Analysis(2)	9	13	13	80	93	82	3.9	3.84	3.55	
Math-418	Functional Analysis	5	14	15	100	93	93.75	3.58	3.96	4.66	
Math-419	Numerical Analysis(2)	9			100			3.70			
Math-425	Discrete Mathematics	19	13	6	95	77	50	4.1	3	4.35	
Math-433	Mathematical Methods	8	14	5	80	100	56	3.9	3.75	3.20	
Math-434	Partial Differential equations	19	9	8	90	100	67	4.51	3.21	3.21	
Math-442	Topology	10	5	12	100	83	75	4.5	3.19	3.81	
Math-443	Differential Geometry	9	13	17	70	80	81	3.80	4.29	3.14	
Math-472	Mathematical Modeling	12	19	11	86	95	65	4	3.3	3.81	
Math-473	Operation Research	12	13	7	100	100	87	3.93	3.80	4.14	
Math-324	Linear Algebra	21	13	15	83	84	85	4.14	4.18	4.27	
Math-331	Differential equations(1)	18	20	7	100	90	77	5	3.60	4.16	
Math-332	Differential equations(2)	17	13	16	80	75	84	3.94	4.11	3.43	

3. Students Evaluation of Program Quality

Evaluation Date:	Number of Participants:

Students Feedback	Program Response
Strengths: ● ●	
Areas of Improvement: ● ●	
Suggestions for improvement: ● ●	

4. Scientific research and innovation during the reporting year

Activities Implemented	Number
Published scientific research: 1- Abdul-Moneim, H. A. (2022). Weighted Fuzzy Time Series Model to Forecast Epidemic Injuries and its Data Visualization. Current Overview on Science and Technology Research Vol. 5, 86–108. https://doi.org/10.9734/bpi/costr/v5/3128C 2- Abdul-Moneim, H. A. (2022). Image Matching Using Pseudo Time Series Representation. Current Overview on Science and Technology Research Vol. 5, 109–151. https://doi.org/10.9734/bpi/costr/v5/3144C	1
3- Intithar Abes-Mona Ashoor-Dhouha Jellali-Wafa assiri.. Systematic revision and Distribution of the Genus Xeroplana from Tunisia (Gastropoda, Pulmonata, Hygromiidae) Nat Sci 2023,23(1):1-8].ISSN1545-0740(print);ISSN2375-7167(online). http://www.sciencepub.net/nature doi:10.7537/marsnsj210123.01.	2
Current research projects	
conferences organized by the program	
Seminars held by the program	
Conferences attendees	

Seminars attendees	

Discussion and analysis of scientific research and innovation activities:

5. Community Partnership

Activities Implemented	Brief Description*			
	Organizer	Number of beneficiaries	Date	Target group
The basics of using the Blackboard e-learning system	Dr. Ouafae Lahlou	8	4/9/2022	faculty members
Direct Assessment for Course files	Dr. Halah Ahmad	3	2022-9-27	Orientation our new Math. Faculties
الهوية التجارية	Dr. Dhouha Jellali			
Indirect Assessments	Dr. Ouafae Lahlou	10	12/10/2022	faculty members
Artificial Intelligence (AI) in Education	Dr. Ouafae Lahlou	6	19/10/2022	faculty members
Mathematical editing skills using Math Type software	Dr. Ouafae Lahlou	15	25/12/2022	Staff members and students
اساسات تعلم الآلة	Dr. Halah Ahmed	7	2023-3-21	Expected Graduated Math-student and Upper
ريادة الاعمال الاجتماعية	Dr. Dhouha Jellali			
تدريب 1 لمنسقات البوابة	Dr. Dhouha Jellali		2022-9-27	

Interesting Power Point	Dr. Halah Ahmed	9	15-5-2023	Expected Graduated Math-student and Upper
Matrices and Big DATA	Dr. Halah Ahmed	9	18-5-2023	Expected Graduated Math-student and Upper
E-learning	Teaching and Learning Committee		12-9-2022	All faculty
Blue Print	Waqar Azher	10	26-9-2022	All Darb-faculty
E-Learning	Teaching and Learning Committee		26-9-2022	All faculties
Course Planning	Teaching and Learning Committee		27-9-2022	All faculties
Sway	Iman Gadir	5	5-10-2022	All Darb-faculties
ASIIN-Criteria 1	Zico		10-10-2022	HOD &Math Quality Co-Ordinators
ASIIN-Criteria 3	Moin Akhter		18-10-2022	HOD &Math Quality Co-Ordinators
ASIIN-Criteria 4	عظيم حيدر		19-10-2022	All Quality Co-Ordinators Of Math. Dept.
KPIs	Saiid Bourazza		20-10-2022	All Quality Co-Ordinators Of Math. Dept.
ASIIN-Criteria 5	Rao		24-10-2022	All Quality Co-Ordinators Of Math. Dept.
ASIIN-Criteria 6	Hashim Khan		26-10-2022	All Quality Co-Ordinators Of Math. Dept.
ASIIN-Criteria-2 Expected Questions	Abdul Haseeb		28-10-2022	All Quality Co-Ordinators Of Math. Dept
Scientific-Research	Ali Koam		10-10-2022	All Darb-faculties
المقابلة الشخصية	Amal Nawar		13-10-2022	All Darb-students
Program Organization	Waqar Azher	12	17-10-2022	HOD &Quality Co-Ordinators
AI in Teaching	Dr. Ouafae Lahlou	5	25-10-2022	All Darb-faculties
Tasks of Planning and Development unit	Waqar Azher	5	19-11-2022	Planning and Development Co-Ordinators
Research Tool Design	Dr.Turki	40	11-12-2022	Teachers and Students
SPSS	Dr. Nizar	30	12-12-2022	Teachers

Citation in research	Dr. Naglaa	35	13-12-2022	Teachers
How to Write Literature Review	Dr. Rasha	10	13-12-2022	Teachers
Scientific Research Methodology	Dr. Ahmad Alhazmi	10	14-12-2022	Teachers
Selecting a Research Sample	Dr. Mouna	10	15-12-2022	Teachers
Introduction to Survey Writing	Waqar Azher	2	15-12-2022	Teachers
Referencing Software	Dr.Turki	10	18-12-2022	Teachers
الوعى البيئى	د. حنان ابو القاسـم البوصلى	10	2023-3-20	Teachers
Annual Program Report	Waqar Azher	2	27-3-2023	Darb HOD &Quality Co-Ordinators
Course report and Annual Program Report	DAD by Rania Zakria	1	10-5-2023	Quality Co-Ordinators and staff members.
مؤشرات الاداء والمقارنة المرجعية	د.السيد عبد الحميد	1	2023-5-16	Quality Co-Ordinators

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

Comment on community partnership activities**

**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: ● ●				
Points for Improvements: ● ●				
Suggestions for development: ● ●				

*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	Targeted Value	Actual Value	Internal Benchmark	Analysis	New Target
1	Percentage of achieved indicators of the program operational plan objectives	**80%**	**90%**	**80%**	**Strengths:** The result of this indicator denotes that the actual value is 80%, It is clear shown that the actual value meets the target benchmarks, and it is satisfactory زن **Explanation:** We have used our same Math Department 2022 actual benchmarking as Internal benchmarking The actual value is calculated by achievement some of the action plain targets ($\frac{13}{14} = 90\%$). **Recommendations:** Published Research Ratio is achieved but it is not satisfactory. So, we have to encourage for more research	**90%**
2	Students' Evaluation of quality of learning experience in the program	**4.5**	**4.14**	**4.40**	**Strengths:** Good number of Student 's department Evaluate the Student Experience Survey. **Explanation:** This indicator is the average rating of the answer on Student program Evaluation Survey of Q22. The average response to this Survey was 4.14 while the target benchmark is 4.5	4.2

No	KPI	Targeted Value	Actual Value	Internal Benchmark	Analysis	New Target
					Recommendations: Improve scientific and social services for the students.	
3	Students' evaluation of the quality of the courses	**4.2**	**4.08**	**4**	**Strengths:** The department has good average of the student evaluation of the quality of the Course. **Explanation:** This indicator is the average rating of the answer on Course Evaluation Survey (CES). It is clear that the actual benchmark meets the target benchmarks, and it is nearly equal to last year's internal benchmark.	4.2
4	Completion rate	**20%**	Term1: 0% Term2: 13% Term3: 17%	**15%**	The department has not A fair number of students who completed program in minimum time for the first term **Strengths:** The actual average value for this KPI was 13% , It is clear that the actual benchmark is less than target benchmarks, bench mark of last year.	18%
5	First-year students retention rate	**5%**	**%100**	**4%**	**Analysis:** First-year students' retention rate KPI was 100% which exceeds	%100

No	KPI	Targeted Value	Actual Value	Internal Benchmark	Analysis	New Target
					the target benchmark, it is exemplary. **Strong point:** First-year students retention rate KPI was 100% which is exemplary.	
6	Students' performance in the professional and/or national examinations	**5%**	**0.0**	**0.0**	Is not satisfactory	5%
7	Graduates' employability and enrolment in postgraduate programs		**NDA**	**NDA**	NO Data is available (NDA)	
8	Average number of students in the class	**24**	<table><tr><td>Term1</td><td>Term2</td><td>Term3</td></tr><tr><td>20</td><td>22</td><td>22</td></tr></table>	**27**	**Strengths:** The College has appropriate number of class rooms and the department has fair number of Teaching Staff but the number of student/class is less than last year. **Recommendations:** Average number of students/class is satisfactory.	25
9	Employers' evaluation of the program graduate's proficiency		NDA	**NDA**	**Recommendations:** NO Data is available (NDA) Is not satisfactory	
10	Students' satisfaction with the offered services	**4**	2.93	**3.56**	**Explanation:** This indicator was estimated based on the Student Experience Evaluation Survey . Students Level 5, 6 and 7. This indicator is the average rating of the answer on questions Q21,Q22" It is less than the last year internal bench mark.	3

No	KPI	Targeted Value	Actual Value	Internal Benchmark	Analysis	New Target
11	Ratio of students to teaching staff	**20:1**	17:1	**20:1**	**analysis:** The number of teaching staff includes teaching assistant, lecturers and assistant professors. This indicator was done using the ratio of teaching staff to student. In average, the ratio 17:1 is satisfactory. **Strengths:** 1-The teaching staff will have more time for student. 2- The students will have more hands-on time with his teacher Different teaching strategies and learning styles can be accommodated. 3- Increasing the social and mental Student-teacher values. **Recommendations :** Keeping on this ratio because it met with the target benchmarks	18:1
12	Percentage of teaching staff distribution	**40%**	Male 0% Female 100% Academic Rank: Ph.D. = 36% Lecturer= 45% Others= 9%	**30%**	**Strengths:** Variety of specified PHD staff give a good chance for student experience. **Explanation:** This indicator that the actual value (Phd 36%), is less than the target bench mark.	38%
13	The proportion of teaching staff leaving the program	**0**	0.22	**0**	**Analysis:** Through this KPI, it is clearly shown that	0

No	KPI	Targeted Value	Actual Value	Internal Benchmark	Analysis	New Target
					the actual value exceeds the target benchmark .	
14	Percentage of publications of faculty members نسبة منشورات أعضاء هيئة التدريس	**10%**	0.36	**0**	**Analysis:** Through this KPI, it is clearly shown that the actual value is better than the target and last year benchmark **Recommendations:** Increasing researches.	50%
15	Rate of published research per faculty member معدل البحوث المنشورة لكل عضو هيئة تدريس	**1:10**	4: 11	**0**	**Analysis:** Through this KPI, it is clearly shown that the actual value less than the target and last year benchmark **Recommendations:** Increasing researches.	1:11
16	Citations rate in refereed journals per faculty member	**0.1**		**0**	**Analysis:** Through this KPI, it is clearly shown that the actual value less than the target benchmark **Recommendations:** Increasing researches.	0
17	Satisfaction of beneficiaries with the learning resources	**3.8**	3.37	**3.42**	**Explanation:** This indicator was estimated based on program evaluation Survey . This indicator is the average rating of the answer on	3.5

No	KPI	Targeted Value	Actual Value	Internal Benchmark	Analysis	New Target
					questions Q9" Library resources were adequate and available when I needed them". It is less than the target last year benchmark	
Comments on the Program KPIs and Benchmarks results:						

Comments on the Program KPIs and Benchmarks results:

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

Teaching	
Assessment	
Guidance and counseling	
Learning Resources	
faculty	
Research Activities	
Others	

E. Program development Plan

No.	Priorities for Improvement	Actions	Action Responsibility
1	Enlightening new teachers about university laws, academic calendar, rights, and duties	Workshop	HOD
2	Enlightening new students about university laws, academic calendar, rights, and duties	Workshop Student Guidebook	Academic Advising Committee
3	Follow up on the cases of defaulting students and provide sufficient time to help them	Individual sessions	Academic advisors
4	The academic advisor handles the registration processes for the visiting students	Applying visitor student registration forms	Academic advisors
5	Development of professional graduate skills	Preparing a table of activities that increase the efficiency of graduates	Training Committee & Alumni Committee
6	Organizing Workshops to the Department Faculty Members about the research priorities of the university	Workshops & Discussions	Scientific Research Committee
7	Provide the teaching plan, assessment blueprints and the main references for all courses in PDF format	Formal request to the main campus	Teaching and Learning Committee
8	Increase the number of activities dealing with mathematical topics	Suggest activities that are particularly suitable for mathematics students	Activity Committee
9	Extracurricular activities	Encouraging students to participate in extracurricular activities (cultural and sports)	Activity Committee
10	KPIs 6,7 and 9 measurement	Serious search for a feasible way to obtain the required data in cooperation with the Graduates Unit	Alumni Committee (In cooperation with the Graduate and Employment Relations Center)

- 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	AL-Darb Math's Council
REFERENCE NO.	UCDBMT240203
DATE:	3-9-2023