

Program Specification

Program Name: Programming and databases - 061301 No

Qualification Level: Intermediate Diploma

Department:computer

College: Applied College

Institution: Najran university











Content

A. Program Identification and General Information	3
B. Mission, Goals, and Learning Outcomes	4
C. Curriculum	6
D. Student Admission and Support:	8
E. Teaching and Administrative Staff	11
F. Learning Resources, Facilities, and Equipment	12
G. Program Management and Regulations	12
H. Program Quality Assurance	13
I. Specification Approval Data	19

A. Program Identification and General Information

1. Program Main Location:							
Najran University							
2. Branches Offering the Program:							
No branches							
3. Reasons for Establishing the Program:	I notional paoda	and development ata)					
(Economic, social, cultural, and technological reasons, at 1. 1. In response to the requirements of the							
modernizing educational programs to se							
applied colleges with the needs of the la		in ungilling the coupling of					
2. 2. The labor market needs graduates who		le with modern technologies					
in the management, design and impleme	entation of data	abase systems					
3. 3. All business sectors require the management							
software and database systems that requ		ned graduates in the					
management, design and operation of the							
4. 4. Contribute to raising job Saudization							
meet the needs of the labor market in th linking the program in partnerships with							
	_	Cloi					
4. Total Credit Hours for Completing the Pr	ogram: (73)						
5. Professional Occupations/Jobs:							
1- Computer programmer							
2- Data bank programmer							
3- Application programmer							
4- Software development sp	pecialist						
5- systems tester							
6. Major Tracks/Pathways (if any):		,					
Major track/pathway	(For each track)	Professional Occupations/Jobs (For each track)					
	(1 of each track)	(Coronal Mana)					
Intermediate Diploma in Programming and	Intermediate Diploma in Programming and 73						
Database							
7. Intermediate Exit Points/Awarded Degree (if any):							
Intermediate exit points/awarded degree		Credit hours					
1- Diploma in Applied Computer							
Science (Associate Diploma) 2- IC3 Professional Certificate							
3- Oracle Database SQL							
3- Olacie Database SQL							

4- PCAP Certificate

B. Mission, Goals, and Learning Outcomes

1. Program Mission:

Preparing cadres in the field of programming and databases to bridge the gap in intermediate jobs by providing students with skills of analysis, design and application of programming and databases tools

2. Program Goals:

The information systems program aims to provide the student with

The programming and databases program aims to provide the student with

- 1-Preparing cadres in the field of programming and databases to bridge the gap in intermediate jobs by providing students with skills of analysis, design and application of programming and databases tools
- 2-skills of programming, design, and operation of database systems that operate institutions, such as: banks, telecommunications companies, ... and others
- 3-Managing databases, keeping them, storing them, protecting them, and retrieving them when needed.
- 4-Understand the requirements of the labor market in software and database systems and provide appropriate solutions to them..

3. Relationship between Program Mission and Goals and the Mission and Goals of the Institution/College.

Institution Mission: Preparing qualified educational and technical cadres that contribute effectively to the development and service of society and compete in the services provided locally through specialized programs according to specific criteria that are compatible with the renewed requirements of society in accordance with Islamic values.

Program mission: Preparing cadres in the field of of programming and databases to bridge the gap in intermediate jobs by providing students with skills of programming, design and application of database systems tools

There is a close Relationship between the mission and objectives of the program with the mission and objectives of the Institution, and this is evident through:

Optimal use of modern technologies through theoretical and practical courses included in the programming and database Program

Preparing qualified cadres in the field of programming and databases at a distinguished level to meet the needs of society and the labor market on the one hand, and participate in research and community development on the other hand

4. Graduate Attributes:

- 1- The skill of programming databases systems applications
- 2- The skill of solving problems and creating algorithms and applying them in several programming languages
- 3- The skill of designing systems, small networks and web pages
- 4- The skill of developing his ability to link between the theoretical aspects of his study and the issues of scientific reality
- 5- The skill of teamwork and effective communication with others

5.Program learning Outcomes* **Knowledge and Understanding** The student describes the basic knowledge that enables him to design software and databases for organizations and companies. **K2** The student knows the basic components of programming and databases that enable him to deal with software and database systems The student understands the different algorithms used in software and database **K3** systems **K4** K... Skills S1The student applies the basic skills that enable him to work on developing software and database systems for institutions and companies. **S2** The student analyzes database systems that are used in institutions, such as: banks, telecommunications companies, ... and others. **S3** The student designs database systems **S4** The student develops websites and applications in databases Values The student is committed to the values adopted by the university as V1guidelines for behavior and performance in terms of ethical values in the work environment V2The student respects diverse work environments and takes

The student is ables to work in a team spirit and leadership

responsibility for decision-making

^{*} Add a table for each track and exit Point (if any)

C. Curriculum

1. Curriculum Structure

Program Structure	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Descriptions	Required	0	0	0
Institution Requirements	Elective	0	0	0
C. II D	Required	7	14	19%
College Requirements	Elective			
D D : 4	Required	17	48	66%
Program Requirements	Elective			
Capstone Course/Project		1	3	4%
Field Experience/ Internship		2	8	11%
Others				
Total	•	27	73	100%

^{*} Add a table for each track (if any)

2. Program Study Plan

2.110,	gram Study	1 1411				
Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
	156حال-2	Computer Skills 1	Required		2	Program
	191نجل-2	Grammar	Required		2	College
	192نجل-2	Reading and writing	Required		2	College
Level	193نجل-2	Listening & Speaking	Required		2	College
1	153دار -2	Modern communication skills			2	
	180حال-2	Computer Math	Required		2	Program
			***************************************		12Hrs	
	157حال-2	Computer Skills 2	Required	2 156حال-	2	Program
	196نجل-2	Grammar2	Required	1912نجل-	2	College
	195نجل-2	Reading and writing2	Required	192نجل-2	2	College
	194نجل-2	Listening & Speaking2	Required	193نجل-2	2	College
Level 2	181حال-3	Programming Fundamentals	Required		3	Program
	امال-3 Introduction to Database		Required		3	Program
					14	Program
	182حال-3	Structured Programming	Required	181حال-3	3	Program
Level	165حال-3	Computer Networks	Required		3	Program
3	173حال-3	Database Management Systems	Required	3 172حال-	3	Program
	167حال-3	Operating systems	Required	157حال-2	3	Program
	282حال-2	Training Field1			2	Program

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
					14	
	283حال-3	oriented programming1	Required	182حال-3	3	Program
	274حال-3	Structured Query Language1	Required	173حال-3	3	Program
Level	264حال-3	Data Structures	Required		3	Program
4	286حال-3	Web pages Design and Programming	Required	Required		Program
					12Hrs	
	285حال-3	oriented programming2	Required	284حال-3	3	Program
Level	3-الـ275 Structured Query Language2		Required	274حال-3	3	Program
5	276حال-3	Database Management	Required		3	Program
	287حال-3	Internet database application development	Required	286حال-3	3	Program
					12Hrs	
	281حال-3	Applied Project	Required	All above	3	Program
Level 6	282حال-6	Training Field2	Required	Complete 20 credit hou	6	Program
					9Hrs	

^{*} Include additional levels if needed

3. Course Specifications

Insert hyperlink for all course specifications using NCAAA template

4. Program learning Outcomes Mapping MatrixAlign the program learning outcomes with program courses, according to the following desired levels of performance (I = Introduced P = Practiced M = Mastered)

·		Program Learning Outcomes									
Course code & No.		Knowle underst				Sk	ills		Values		
	K1	K2	К3		S1	S2	S3		V1	V2	V3
156حال-2	I	I			I						I
191نجل-2	I	I			I	I			I		
192نجل-2	I		I		I				I		
193نجل-2			P						I		
153دار -2	I	I			I		I		I		
180حال-2		P	I			P			I		
157حال-2	I	P	I			I		P	I		
196نجل-2		I	I			I	I		P	P	I
195نجل-2	I		P			P	P		M		I
194نجل-2	I	I			P	P	I		P		
181حال-3	P	M			M	P	P	P			P
172حال-3	p	P	P		p	I			P		
182حال-3		I	P			P	I				P
165حال-3		I	P			P	I		P		M
173حال-3	I	I			M	P			I		
167حال-3	P	M				P	M	P			P

^{**} Add a table for each track (if any)

		Program Learning Outcomes									
Course code & No.		Knowledge and understanding Skills Values									
	K1	K2	К3		S1	S2	S3		V1	V2	V3
282حال-2	P	P			M	M		M	M	M	I
283حال-3	M	M	I	P	P	P	I	I	M	M	P
274حال-3	P	P			P	P			M	M	I
264حال-3	P	P			M	M			M	M	I
286حال-3	M	M			P	P			M		I
285حال-3	P	P			P	P			M		
275حال-3	M	M			M	M			M		I
276حال-3	P	P							M		I
287حال-3	M	M			P	P			P	P	
281حال-3	P	P			P	M			P	M	
282حال-6	P	P			P	P			P	P	

^{*} Add a table for each track (if any)

5. Teaching and learning strategies to achieve program learning outcomes

Describe policies, teaching and learning strategies, learning experience, and learning activities, including curricular and extra-curricular activities, to achieve the program learning outcomes.

- 1- Lectures
- 2- Small and large group discussions
- 3- Brainstorming
- 4- Working in small group
- 5- Application in laboratories
- 6- Small projects

6. Assessment Methods for program learning outcomes.

Describe assessment methods (Direct and Indirect) that can be used to measure achievement of program learning outcomes in every domain of learning.

- 1- Monthly Exams
- 2- periodic exercises
- 3- practical exams
- 4- Application project report evaluation
- 5- Discussion of the applied project
- 6- Evaluation of the trainee's report
- 7- Trainee's discussion
- 8- Final Exams

D. Student Admission and Support:

1. Student Admission Requirements القبول والدعم الفنى

- 1. He must have a high school certificate or its equivalent from within the Kingdom or from outside.
- 2. Should not have passed the high school or equivalent for more than five years (for regularity).
- 3. Passing the National Center for Measurement and Evaluation
- 4. Successfully pass any test or personal interview determined by the University.
- 5. Be medically fit.
- 6. The applicant should not exceed 30 years of age.

- 7. To obtain the approval of his / her reference to the study if he works in any governmental or private entity.
- 8. Has not obtained a bachelor's degree from another university.
- 9. He shall meet any other conditions determined by the University Council and announce the time of submission.
- 10. Not be separated from another university for disciplinary or educational reasons

2. Guidance and Orientation Programs for New Students

At the beginning of the student's enrollment in the program, the Information Security Program Department at the beginning of the semester will hold a meeting with the new students. The program structure, the study plan and the program guide will be presented to the new students.

- Students are introduced to the system of academic guidance and the distribution of students to academic counselors who help students in academic and academic affairs and work to clarify the things needed by students and guide them in the process of registration of courses and solve the problems they face

3. Student Counseling Services خدمات الارشاد

(academic, career, psychological and social)

	Program of Academic Guidance for each semester						
week	Tasks and activities.						
1, 2	Hold a meeting with the students of the department to welcome them an acquaintances and clarify the tasks of the academic guide						
3	 Meeting with the Dean, the Undersecretaries and the Head of Compute Department with the new students. Courses Delete and add action 						
4	 Holding a meeting with the members of the faculty in the department to coordinate with them in the performance of tasks and the formation of the educational bag. To develop a list of the names of students and their cases in terms of being incompetent or outstanding or creative and inform the members of the faculty. First Class Report (Guides) 						
5	 Limiting the creative activities of students and their tendency to start joining the various activities in college. Restricting the number of students who did not exceed 75% of the lectures an contact them or their families to inform them of their embarrassment and the determine the reasons for this and whether it is possible to provide assistance. 						
8	Psychological preparation and problem solving for the first quarterly test.						
10	Restrict students who did not exceed 50% of the lectures and contact them or the families to inform them of their embarrassment and to find out the reasons for thi and whether it is possible to provide assistance.						
11	A meeting with all members of the faculty to determine the conditions of student who failed (after the first and second semesters test) and what was directe towards them and the extent of the impact of the program followed with them i the adjustment of their results of study as well as outstanding students and the motivation, Special care.						
13	Restrict students who did not exceed 25% of the lectures and contact them or the families to inform them of their embarrassment and to determine the reasons for this and whether it is possible to provide assistance						
13	- Instructing the students of the department how to deal with the anxiety tests an ways to overcome it.						

	- Second report on the semester (mentors).
14	Survey the students of the department to learn about their impressions of the activities of academic guidance section.
15	Report of the academic advisor on the activity of academic guidance department during the semester and submitted to the head of the department.

4. Special Support الدعم الخاص

(low achievers, disabled, gifted and talented)

The plan of caring for outstanding and talented students in the Applied college

- 1) A list of outstanding and talented students in the program at the end of the academic year prepare
- 2) Honoring outstanding and gifted students during the introductory meeting at the beginning of the academic year and inviting their parents
- 3) Distribute certificates of excellence to students who are outstanding and talented
- 4) Publishing the names of outstanding and talented students in the program on the website of the College
- 5) Put the names of the outstanding in the plaque of honor for the program and are displayed throughout the year
- (6) Conducting monthly social evenings where the Dean of college and faculty members meet with the elite and talented students

A program to support students who are defaulted

- 1. Dividing the students into groups and meeting them periodically.
- 2. Support programs for disabled students are conducted twice a semester instead of once per semester
- 3. Support programs for students who fail in the presence of the administration of the college and provide certificates of appreciation to outstanding students to motivate students who fail
- 4. Updating the methods of communication with the students of the guide through various social media

E. Teaching and Administrative Staff

1. Needed Teaching and Administrative Staff الاحتياجات من هيئة التدريس والاداريين الفنيين

	ing and Hammis						
Academic Rank	Spec	ialty	Special Requirements /	Required Numbers			
Academic Rank	General	Specific	Skills (if any)	M	F	Т	
Professors	Computer Sciences	Programming		2	2	4	
Associate Professors							
Assistant Professors	Computer Sciences			3	3	6	
Lecturers							
Teaching Assistants							
Technicians and Laboratory Assistants	Technical	Programming Databases Networks web page designs		4	5	9	
Administrative and Supportive Staff	Business office			2	2	4	
Others (specify)							

2. Professional Development

2.1 Orientation of New Teaching Staff

Describe briefly the process used for orientation of new, visiting and part-time teaching staff

- 1- An explanation for the new faculty members of the programs and regulations governing the educational process.
- 2- Introducing the new faculty members to the tired teaching strategies to achieve the educational outcomes of the courses and the program.
- **3-** Introducing new faculty members to the exhaustive evaluation methods in the program
- 4- Introducing the components of the course file
- 5- Introducing the quality requirements in the program. Nominating new members for the courses offered by the Deanship of Development and Quality

2.2 Professional Development for Teaching Staff

Describe briefly the plan and arrangements for academic and professional development of teaching staff (e.g., teaching & learning strategies, learning outcomes assessment, professional development, etc.)

The Agency for Applied Programs annually asks each faculty member to determine their needs for up-to-date books.

2 -The list of books specified by the faculty members is sent to the official authorities in the university to be made available in the university library.

- 3 The Agency for Applied Programs urges faculty members to deal with the possibilities provided by the university library to benefit from them in teaching and research.
- 4- Urging the faculty members of the program to participate in research projects submitted by the university

F. Learning Resources, Facilities, and Equipment

1. Learning Resources.

Mechanism for providing and quality assurance of learning resources (textbooks, references and other resource materials, including electronic and web-based resources, etc.)

- The mechanism is attached to the file

2. Facilities and Equipment

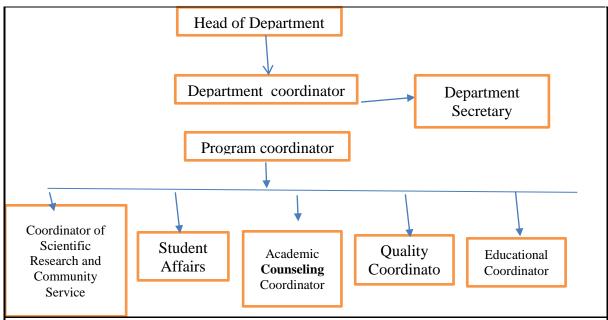
(Library, laboratories, medical facilities, classrooms, etc.).

Providing computer labs equipped with the required software to teach
practical courses, capacity commensurate with the number of students
 Providing classrooms equipped with modern educational aids (display screens) with a capacity commensurate with the number of students

- **3.** Arrangements to Maintain a Healthy and Safe Environment (According to the nature of the program)
 - A precautionary committee responsible for following up on health procedures
 - Providing security and safety equipment
 - -There are emergency exits

G. Program Management and Regulations

1. Program Management 1.1 Program Structure (including boards, councils, units, committees, etc.)



1.2 Stakeholders Involvement

Describe the representation and involvement of stakeholders in the program planning and development. (students, professional bodies, scientific societies, alumni, employers, etc.)

The participation of the beneficiaries in the planning and development of the programs shall be as follows:

First: the faculty members

Participate in program planning and development through workshops, discussion sessions and brainstorming.

Second: the students

Students engage by exploring their views on mission, goals, learning outcomes, teaching methods, and assessment methods in each semester and at each development and improvement stage.

Third: - Employers

Participate in planning, evaluating and developing the program through advisory committees that include members of employers (from employers).

2. Program Regulations

Provide a list of related program regulations, including their link to online version: admission, study and exams, recruitment, appeals and complaint regulations, etc.)

https://dadr.nu.edu.sa/ Admission and registration http://.nu.edu.sa/students/exam Study and tests https://nu.edu.sa/web/guest/1070 Student Services

https://ddq.nu.edu.sa/iso/page-366.html

H. Program Quality Assurance

1. Program Quality Assurance System

Provide online link to quality assurance manual

https://ddq.nu.edu.sa/iso/page-366.html دليل نظام ضمان الجودة 2. Program Quality Monitoring Procedures

Quality assurance requirements for the educational process elements	components of the educational process
 -Induction program to prepare for new students in the program Focus on class activities and and non-classroom Implementation of an approved academic advising system Suggestion system f Implementation of Provides program guides -Reviewing course reports and writing reports on them periodically Preparing a file for each course that includes complete data about the course Determines a list of approved books as a source for each course in the program and makes them available to students. Define program advisory committees to follow up on the program and its quality Applying the standardized exam for the course that is taught by more than one faculty member in the program -Continuously updating the courses to keep pace with recent developments and then approving them by the department council -Considering the textbook as the minimum for a scientific subject, in addition to studies determined by the course coordinator -Apply a variety of teaching strategies and activities that fit the nature of the courses in the program Apply various methods of assessment, including: -Achievement test (midterm - practical - final) to to evaluate learning outcomes related to Values. - Direct and indirect observation to evaluate learning outcomes related to values. 	the students Program - Courses
 Questionnaires for assessing students' satisfaction with (the course - teaching strategies - assessment methods - teaching members.(Course and program reports. - Reference audit reports Evaluation of the test paper 	
 The university provides a central and digital library that includes books that meet the needs of the program beneficiaries The university provides an internet service for faculty members and students 	Library and learning resources

 The program provides an induction for new faculty members in the program Where it focuses on professional development through (training programs for faculty members - facilitating attendance at conferences - scientific meetings(Focusing on developing the capabilities of faculty members in using technology in teaching and learning - A periodic evaluation of the performance of the faculty members in the program includes: - Student evaluation - self evaluation - Academic excellence assessment. - A document is available that includes the tasks, roles and responsibilities of the faculty members - Fair policies and procedures are applied to faculty members. 	to faculty members
Decisions delegating responsibilities formally defined in documents signed by the authorized person. The program coordinator writes requirements for the program each year.	rules and regulations of Operating
Complete lists of equipment used in the program. Including the custody of each member for the purposes of teaching and scientific research Periodic follow-up to evaluate the equipment and provide the necessary maintenance	Facilities And support available
 Follow-up the results of evaluating students' performance and comparing them with specific standards of performance, writing reports and developing plans for improvement Results of measuring learning outcomes for courses and programs Writing reports for key performance indicators that define the 	3
 current status of performance indicators Implementation of training programs for graduate students aimed at developing their professional abilities and skills, each in his field of specialization. - 	
 Follow-up the results of evaluating students' performance and comparing them with specific standards of performance, writing reports and developing plans for improvement A questionnaire for students of the last level in the program and the level of experience of the student 	graduates
 A questionnaire for graduates about the professional competencies they acquired in the program and their relationship to jobs in the labor market A questionnaire for the employers in which the graduates of the program work to identify the strengths and weaknesses of these graduates 	

3. Arrangements to Monitor Quality of Courses Taught by other Departments.

- Reviewing course reports, preparing periodic reports, and using the results of the reports in preparing the program report

Preparing a file for each course that includes complete data about the course

- Specify a list of approved books as a source
- Updating and reviewing courses, then approving them by the department council

Considering the textbook as the minimum for a scientific subject

4. Arrangements Used to Ensure the Consistency between Main Campus and Branches (including male and female sections)

do not apply

5. Arrangements to Apply the Institutional Regulations Governing the Educational and Research Partnerships (if any).

do not apply

6. Assessment Plan for Program Learning Outcomes (PLOs), and Mechanisms of Using its Results in the Development Processes

The learning outcomes of the courses and the program are measured after each semester. There is a relationship between the learning outcomes of the program with the learning outcomes of the courses as in the matrix included in the program description.

Program learning outcomes and course learning outcomes are measured through an electronic program designed using Microsoft Excel. The program was programmed based on the number of program learning outputs, the relative weights of each scheduled output in relation to the program output.

The data to be entered are:

- 1. Course information
- 2. Students' names
- 3. Write the number of course learning outcomes

After that, the appropriate assessment is selected and students' grades are entered for the specified outcome

After saving, the program measures the percentage of outputs achieved The program provides a diagram for each area of learning outcomes that includes the target and actual level of performance.

strength point:

There is one system in the program to measure learning outcomes

Weak points

After the notes in the system, you need to modify, for example, the possibility of adding more than 100 students to the system

improvement points

Develop and update the system in line with the system users' feedback

7. Program Evaluation Matrix

77 I OG LUM 23 GUIGUNOM MARKETIN				
Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time	
Program leaders	Program Faculties	questionnaires	End of year	
Teaching and assessment effectiveness	the students	questionnaires	during the semester	
learning resources	Students - faculty members	questionnaires	during the semester	
Services	Students - faculty members	questionnaires	End of year	

Evaluation Areas/Aspects (e.g., leadership, effectiveness of teaching & assessment, learning resources, partnerships, etc.)

Evaluation Sources (students, graduates, alumni, faculty, program leaders, administrative staff, employers, independent reviewers, and others (specify)

Evaluation Methods (e.g., Surveys, interviews, visits, etc.)

Evaluation Time (e.g., beginning of semesters, end of academic year, etc.)

8. Program KPIs*

The period to achieve the target (.......) year.

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
1	KPI- P01	Percentage of performance indicators of the operational plan objectives of the program that achieved the targeted annual level to the total number of indicators targeted for these objectives in the same year	100%	The percentage of performance indicators of the operational plan goals that achieved the target level to the total number of indicators targeted for these goals in the same year	End of the year
2	KPI- P02	Students' Evaluation of quality of learning experience in the program	90%	Average overall rating of final year students for the quality of learning experiences in the program, on a five-level scale in questionnaires	End of each semester
3	KPI- P03	Students' evaluation of the quality of the courses		Average student overall rating for course quality, on a five-level scale in questionnaires	End of each semester
4	KPI- P04	Completion rate	95%	Percentage of undergraduate students who have completed in the minimum set period of the program in	End of the year

No	KPIs Code	KPIs	Target	Measurement Methods Measuremen Time	
				each batch	
5	KPI- P05	First-year students retention rate	99%	Percentage of first-year students who continue in the following year to the total number of first-year students in the same year	
6	KPI- P06	Students' performance in the professional and/or national examinations	100%	Percentage of students or graduates who pass professional and/or national examinations, their average if any-and median score	
7	KPI- P7	Graduates' employability and enrolment in postgraduate programs	95%	Percentage of program graduates who: - enrolled in a -Employees postgraduate program during the first year of their graduation to the total number of graduates in the same year	
8	KPI- P08	Average number of students in the class	25	Average number of students per class (per meeting/teaching activity: small group lecture, panel discussions, lab or clinical (lessons	
9	KPI- P09	Employers' evaluation of the program graduates proficiency	95%	The average overall rating of employers for the efficiency of program graduates on a five-level scale in questionnaires	
10	KPI- P10	Students' satisfaction with the offered services	95%	· 	
11	KPI- P011	Ratio of students to teaching staff	1:25	The Percentage of the total number of students to the total number of full-time faculty or its equivalent in the program	
12	KPI- P012	Percentage of teaching staff distribution	1:1		

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
13	KPI- P013	Proportion of teaching staff leaving the program	0%	Percentage of faculty who leave the program annually for reasons other than reaching the legal age to the total number of faculty members	End of year
14	KPI- P014	Percentage of publications of faculty members	50%	Percentage of faculty members who published at least one research during the year to the total number of faculty members in the program End of year to year of the total number of faculty members in the program	
15	KPI- P015	Rate of published research per faculty member	90%		
16	KPI- P016	Citations rate in refereed journals per faculty member	90%	Average number of citations in refereed journals from research published for each faculty member in the program (total number of citations in refereed journals from practical research published for full-time faculty members or its equivalent to the total number of published (research	End of year
17	KPI- P017	Satisfaction of beneficiaries with the learning resources	90%	Average rating of beneficiaries' satisfaction with the adequacy and diversity of learning resources (references, periodicals, databases, etc.) on a five-level scale in questionnaires	End of year

^{*} including KPIs required by NCAAA

I. Specification Approval Data

1. Specification rip	provar Bata
Council / Committee	PROGRAM COMMITTEE
Reference No.	

Date 25/3/2022