Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department

Academic Program and Course Description Guide

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

Course Description: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

Program Mission: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

Curriculum Structure: All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: Diyala University

Faculty/Institute: College of Basic Education

Scientific Department: computer science

Academic or Professional Program Name: Basic Education–computer science

Final Certificate Name: Bachelor's degree in basic education

Academic System: Semester courses

Description Preparation Date: 1/9/2024

File Completion Date: 1/9/2024

Signature:

Head of Department Name:

Shaymaa Taha Ahmed

Date: 1/9/2024

Signature:

Scientific Associate Name:

Asst prof. Heider A. Abbas

Date: 1/9/2024

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date: 1/9/2024

Signature:

Approval of the Dean

1. **Program Vision**
An ambitious picture for the future of the academic program to be an advanced, inspiring, motivating, realistic and applicable program.

2. **Program Mission**
It briefly explains the goals and activities necessary to achieve them, and also identifies the program's development paths and directions.

3. **Program Objectives**
They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable. 1- Preparing university teachers who possess the educational skills necessary to teach computers 2- Developing students' scientific attitudes to enable them to develop their own abilities in their higher studies 3- Providing students with the necessary skills to deal with any scientific problem and solve it in a sound scientific manner 4- Teach students how to innovate and develop educational methods for use in teaching computers 5- Developing and updating scientific curricula in the field of computers 6- Cooperating with all college departments in maintaining and developing computer equipment on a regular and ongoing basis

7- Encouraging attendance and participation in scientific conferences and seminars in order to learn about the latest developments in teaching methods and develop scientific research in specialized subjects.

4. Program Accreditation

All courses/study subjects included in the academic program according to the intentional learning system (courses), whether they are requirements (a ministry, a university, a college, or a scientific department), along with the number of study units.

5. Other external influences

Central admission + student averages

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	28	154	%18.18	
College Requirements	45	154	%29.22	
Department Requirements	81	154	%52.60	
Summer Training	/			
Other				

* This can include notes whether the course is basic or optional.

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
First	Univ1101	Human rights	1	-
First	Univ1103	Arabic I	2	-

First	Univ1105	English I	2	-
First	Coll 1201	Basics of psychology	3	-
First	Coll 1202	Fundamentals of basic education and its principles	3	-
First	Coll 1203	Health and environmental education	2	-
First	Coll 1204	Islamic Education / Civilization	3	-
First	Comp 1301	Structured programming I	3	1
First	Comp 1302	Computer logic Design computer	3	1
First	Comp 1303	Differentiation	2	-
First	Comp 1304	Discrete structures I	3	-
First	Comp 1305	Structured programming II	3	1
First	Comp 1306	Computer techniques	3	1
First	Comp 1307	Integration	3	-
First	Comp 1308	Discrete structures II	2	1
First	Comp 1309	principals of Office	2	1
Second	Univ2107	Arabic II	2	-
Second	Univ2109	Counseling and mental health	3	-
Second	Univ2110	English II	2	-
Second	Univ2111	Democracy	1	-
Second	Coll 2205	Educational Psychology	3	-
Second	Coll 2206	English III	2	-
Second	Coll 2208	Educational Statistics	3	-
Second	Comp 2310	Computational theory	3	1
Second	Comp 2311	Introduction to Microprocessors and computers	3	1
Second	Comp 2312	Programming in C++	3	1
Second	Comp 2313	Data structures I	3	1
Second	Comp 2314	Systems Management (Maintenance)	2	-
Second	Comp 2315	Numerical Analysis	4	-
Second	Comp 2316	Computer graphics	3	1
Second	Comp 2317	Object Oriented Programming OOP	3	1

Second	Comp 2318	Data structures II	3	1
Third	Univ3112	Arabic III	2	-
Third	Coll 3209	Research Methods	3	-
Third	Coll 3210	TMS	2	-
Third	Coll 3211	Measurement and Evaluation	2	-
Third	Coll 3212	General methods of teaching	2	-
Third	Coll 3213	Viewing	-	4
Third	Comp 3320	Analysis systems	3	1
Third	Comp 3321	compilers	3	1
Third	Comp 3322	Computer Architecture I	3	1
Third	Comp 3323	Communications and network security I	3	1
Third	Comp 3324	Operations Research	3	-
Third	Comp 3325	Prolog Lang	3	1
Third	Comp 3326	Computer Architecture II	3	1
Third	Comp 3327	Communications and network security II	3	1
Third	Comp 3328	Data security	3	-
Third	Comp 3329	Software Engineering	2	-
Third	Comp 3330	Methods of Computer Teaching	3	-
Fourth	Univ4115	Arabic V	2	-
Fourth	Coll 4214	Curricula and textbooks	2	-
Fourth	Coll 4215	Educational Administration and direction	2	-
Fourth	Coll 4216	Application	12	-
Fourth	Comp 4331	Databases	3	1
Fourth	Comp 4332	Digital Image Processing	3	1
Fourth	Comp 4333	Operating systems	3	1
Fourth	Comp 4334	Artificial intelligence	3	1
Fourth	Comp 4335	Visual programming	3	1
Fourth	Comp 4336	Research Project Graduation	3	-

8. Expected learning outcomes of the program

Knowledge

A- Cognitive objectives

1- Enabling students to know and understand all terms, concepts and symbols of computer languages

2 - Enabling students to know and understand the methods of creating, modifying and developing various programs.

3- Enabling students to understand and learn how to follow programs inside computers

4- Enabling students to know and understand the methods of working on electronic publishing

5- Enabling students to know and understand how to use management systems and databases

6- Enabling students to acquire knowledge and understand information, knowledge and theoretical concepts related to computer networks and systems

Telecommunications.

7- Enabling students to know and understand modern programming languages and database systems.

8- Enabling students to acquire knowledge and understand educational, psychological and cultural information, facts and concepts

9- Enabling students to understand computer teaching strategies, methods and methods.

10- Introducing students to the most important references and important sources in computer science.

11- Enabling students to understand and know all psychological educational terms, concepts and symbols.

12- Enabling students to understand the basics and concepts of measurement, evaluation, and educational statistics.

13- Enabling students to understand the basics, concepts, theories and types of psychological and educational counseling.

Skills

1-Enabling students to acquire information systems and database management skills.

2- Enabling students to learn and acquire the skills of designing and supervising websites.

3- Enabling students to possess the skills of using modern technologies in teaching and learning computer science

4- Enabling students to possess the abilities to design and invent effective educational activities that encourage students to Learning and participating in it.

5-Enables students to acquire classroom management skills, classroom interaction, and the art of dealing with classroom problems

In an educational manner.

6- Providing students with the necessary skills to develop software of various types.

7- Enabling students to acquire skills for testing the suitability of programs for work

8- Enabling students to acquire the skills of identifying problems resulting from computer misuse and working on them

Solve it

9- Enabling students to acquire scientific research skills.

10- Enabling students to possess the skills of preparing and constructing electronic and paper tests and methods for correcting them.

11- Enabling students to acquire planning skills for teaching at all levels.

12- Enabling students to acquire skills in using modern educational methods to learn computer science

13- Enabling students to possess the skills of designing and managing data and electronic devices.

14- Enabling students to acquire teaching skills in primary and middle schools.

15- Enabling students to acquire self-education skills to acquire new information, skills and knowledge

16- Enabling students to learn the skills of dialogue, discussion, listening, and accepting the opinions of others.

Ethics

1- (The method of lecture, discussion, questioning, exploration, and special methods for teaching common concepts) This is what concerns theoretical education.
2- (Cooperative learning and small groups method) regarding the practical aspect.
1- 40% semester exams, taking into account attendance and participation.
2- 60% end-of-course tests.
C- Thinking skills: developing thinking skills related to:
C1- Critical thinking
C2-Creative thinking
C3-Communication skills
C4- Thinking frameworks for different academic subjects

9. Teaching and Learning Strategies

Common methods: Integrating the development and teaching of the thinking process within the various academic subjects to the extent that it is related to the subject of educational techniques, so that it is taught directly and explicitly.

10. Evaluation methods

1- Written tests

2- Direct observation

3-Theoretical tests

4- Practical tests on the computer

5- Field visits to evaluate applied students

6- Oral and written tests and discussion

11. Faculty

Faculty Members						
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer

12. Acceptance Criterion

Preparatory Certificate – Scientific Branch – Competitive rate based on desire.

13. The most important sources of information about the program

Books, periodicals, university theses, the international information network, and the personal experience of the person teaching the course.

14. Program Development Plan

1- Review the previous steps and their outcomes

2- Reviewing the latest developments in books, periodicals, and the information network in the field of specialization

3- Periodic (annual) updating of approved teaching plans.

Program Skills Outline

Year/Level	Code code	Course Name	Basic or optional	Objectives Cognitive				Object ow p	
				A1	A2	A3	A4	1	
The first The first	Univ1101	human rights	Basic	√	√	√	√		
	Univ1102	Islamic Education I	Basic	√	√	√			
The first The first	Univ1103	Arabic I	Basic	√	√	√	√		
	Univ1104	Islamic Education II	Basic	√	√	√	√		
The first	Univ1105	English I	Basic	√	√	√	√		
The first The first	Call 1201	General Psychology	Basic	√	√	√	√		
	Call 1202	The basis of education	Basic	√	√	√	√		
The first	Call 1203	Developmental Psychology	Basic	√	√	√	√		
The first	Call 1204	principals of Education	Basic	√	√	√	√		
The first	Comp1301	Structured programming I	Basic	√	√	√	√		
The first	Comp1302	Computer logic design comp uter	Basic	√	√	√	√		
The first	Comp 1303	Differentiation	Basic	√	√	√	√		
The first	Comp 1304	Discrete structures I	Basic	√	√	√	√		
The first	Comp 1305	Structured programming II	Basic	√	√	√	√		
The first	Comp1306	Computer techniques	Basic	√	√	√	√		
The first	Comp 1307	Integration	Basic	√	√	√	√		

The first	Comp 1308	Discrete structures II	Basic	√	√	√	√		
The first	Comp 1309	principals of Office	Basic	√	√	√	√		
the second	Univ2107	Arabic II	Basic	√	√	√	√		
the second	Univ2109	Health and Environment Education	Basic	√	√	√	√		
the second	Univ2110	English II	Basic	√	√	√	√		
the second	Univ2111	Democracy	Basic	√	√	√	√		
the second	Call 2205	Educational Psychology	Basic	√	√	√	√		
the second	Call 2206	mental health	Basic	√	√	√	√		
the second	Call 2207	Educational guidance	Basic	√	√	√	√		
the second	Call 2208	Educational Statistics	Basic	√	√	√	√		
the second	Comp2310	Computational theory	Basic	√	√	√	√		
the second	Comp2311	Introduction to microprocessors and computers	Basic	√	√	√	√		
the second	Comp 2312	Programming in C++	Basic	√	√	√	√		
the second	Comp 2313	Data structures I	Basic	√	√	√	√		
the second	Comp2314	Systems Management (Maintenance)	Basic	√	√	√	√		
the second	Comp 2315	Numerical Analysis	Basic	√	√	√	√		
the second	Comp 2316	Computer graphics	Basic	√	√	√	√		
the second	Comp2317	Object Oriented Programming OOP	Basic	√	√	√	√		
the second	Comp 2318	Data structures II	Basic	√	√	√	√		
Third	Univ3112	Arabic III	Basic	√	√	√	√		
Third	Call 3209	Research Methods	Basic	√	√	√	√		

Third	Call 3210	TMS	Basic	√	√	√	√		
Third	Call 3211	Measurement and evaluation	Basic	√	√	√	√		
Third	Call 3212	General methods of teaching	Basic	√	√	√	√		
Third	Call 3213	Viewing	Basic	√	√	√	√		
Third	Comp 3320	Analysis systems	Basic	√	√	√	√		
Third	Comp3321	compilers	Basic	√	√	√	√		
Third	Comp3322	Computer ArchitectureI	Basic	√	√	√	√		
Third	Comp 3323	Communications and network security I	Basic	√	√	√	√		
Third	Comp 3324	Operations Research	Basic	√	√	√	√		
Third	Comp 3325	Prolog Lang	Basic	√	√	√	√		
Third	Comp 3326	Computer Architecture II	Basic	√	√	√	√		
Third	Comp 3327	Communications and network security II	Basic	√	√	√	√		
Third	Comp 3328	data security	Basic	√	√	√	√		
Third	Comp 3329	Software Engineering	Basic	√	√	√	√		
Third	Comp 3330	Methods of Computer Teaching	Basic	√	√	√	√		
fourth	Univ4115	ArabicV	Basic	√	√	√	√		
fourth	Call 4214	Curricula and textbooks	Basic	√	√	√	√		
fourth	Call 4215	Educational administration and direction	Basic	√	√	√	√		
fourth	Call 4216	Application	Basic	√	√	√	√		
fourth	Comp 4331	databases	Basic	√	√	√	√		

fourth	Comp 4332	Digital Image Processing	Basic	√	√	√	√		
fourth	Comp 4333	Operating systems	Basic	√	√	√	√		
fourth	Comp 4334	artificial intelligence	Basic	√	√	√	√		
fourth	Comp 4335	visual programming	Basic	√	√	√	√		
fourth	Comp 4336	Research Project Graduation	Basic	√	√	√	√		

Course Description Form

This course description provides a necessary summary of the most important characteristics of the course and the learning outcomes expected of the student to achieve, demonstrating whether he has made the most of the available learning opportunities. It must be linked to the program description.**;**

Enterprise educational	College Education the basic
Section Scientific / Center	Calculators
Noun / Code scheduled	Structured programming I/ Comp 1301
shapes Attendees available	Is mandatory
the classroom / the year	the classroom scholastic the first / the year The first
number hours tuition (total)	3×15 = 45
Date Preparation this the description	1/ 10/ 2024
Name and Email	Asst Professor Ehsan Salman Jassim drihsan@uodiyala.edu.iq
Goals Decision: that is being requester knowledgeable with concepts following	
1. Algorithms and flowcharts	
2. Principles of Modular Programming	
3. Top-Down Design Approach	
4. Principles of structured programming	
5. Pascal Program Structure	
6. Write the expression in the Pascal language	
7. Allocation and I/O statements	
8. Procedures & Functions	
9. Control and decision-making sentences	

outputs scheduled and modalities education and learning and evaluation

A- Objectives Cognitive 1- That Known requesterHow to write algorithms and draw flowcharts 2- That Known requester Paradigm Programming Principles (modular programming) 3- That Known The top-down design approachTop-Down) 4- That Known requester Principles of structured programming 5- That Known requesterProgram Structure in Pascal Language (pascal) 6- That Known requester How to write expression in Pascal language 7- That Known requester How Utilization assignment, input, and output statementsI/O) 8- That Known requester How to write procedures and functionsProcedures & Functions) 9- That Known requester what Control sentences and how to make a decision
B – Objectives Marathi own By decision. that made up I have Students skills with concepts coming 1-Writing algorithms and drawing flowcharts 2- Rules language Pascal (pascal) 3-Write the arithmetic expression in the Pascal language 4- use assignment, input, and output statementsI/O) 5- Writing procedures and functionsProcedures & Functions) 6- use Control sentences and how to make a decision
modalities education and learning
in Start the classroom Being inform Students vocabulary scheduled scholastic and sources the information (Books Same Relationship , periodicals , Messages undergraduate) and distributed vocabulary on me weeks the classroom scholastic, and Techniques Calendar that will run followed , my agencies: 1. Initialize Lectures According to sequence Which rose in scheduled scholastic About road help with sources the information precedent The remembrance. 2. Inform Students About Theme lecture coming with intent config. 3. Demand from Students Submit Leaves Belonging to subject or more from themes restriction studying.
modalities Evaluation
1. Procedure two exams two quarters the first distance expiration the week Fifth from the classroom scholastic And the second distance the week The tenth from the classroom scholastic and considerate in All Exam levels mental (Remember , application, exploration) where Degree Calendar to her 40% of achievement total on me that Takes I see consideration perseverance requester and volume Share it daily. 2. Exam End the classroom scholastic And for him 60% of achievement According timings Ministry And take into account At put questions inclusivity content scheduled scholastic and levels mental (Remember , application, exploration).
C- Objectives Sentimental And value :that is being requester able on me 1- Definition algorithm And chart streamlined 2- Writing expression Arithmetic 3- Writing camel personalization And input And output 4- Get acquainted on me the difference between procedures And functions 5- Get acquainted on me How Utilization camel the decision
Dr – skills the public And Qual movable (skills other related susceptibility recruitment and evolution profile). 1- Employment skills earned in education Knowledge sports I have Students Stage education Basis. 2- Choose Examples from Established education Basis And to each Of which skills that eat it scheduled scholastic. 3- Evaluation Bezel acquisition pupils education Basis for skills application. 4- Building Tests Especially domains thinking Logical for pupils Stage education Basis.

structure scheduled					
the week	hours	outputs learning required	Noun Unit / or Topic	method education	method Evaluation
1	3	Concept of algorithm and flowchart	Concept of algorithm and flowchart	Discussion and interrogation	calendar structural
2	3	The concept of paradigm programming	The concept of paradigm programming	Discussion and interrogation	calendar structural
3	3	Design concept from top to bottom	Design concept from top to bottom	Discussion and interrogation	calendar structural
4	3	Principles of programming in Pascal language	Principles of programming in Pascal language	Discussion and interrogation	calendar structural
5	3	Pascal program structure	Pascal program structure	Discussion and interrogation	calendar structural
6	3	Test Monthly	Test Monthly	–	calendar structural
7	3	Use the arithmetic expression	Use the arithmetic expression	Discussion and interrogation	calendar structural
8	3	Use assignment, input and output statements	Use assignment, input and output statements	Discussion and interrogation	calendar structural
9	3	Learn about the proceduresProcedures	Learn about the proceduresProcedures	Discussion and interrogation	calendar structural
10	3	Learn about	Learn about the	Discussion and	calendar structural

		the proceduresPr oceduresAnd written	proceduresProcedur esAnd written	interrogation	
11	3	Test Monthly	Test Monthly	–	calendar structural
12	3	Identify on me functions Functions and written	Identify on me functions Functions and written	Discussion and interrogation	calendar structural
13	3	Identify on me camel take the decision	Identify on me camel take the decision	Discussion and interrogation	calendar structural
14	3	Identify on me camel the control	Identify on me camel the control	Discussion and interrogation	calendar structural
15	3	audit scheduled	audit scheduled	Discussion and interrogation	calendar structural

structure substratum	
1- The required textbooks	Nothing
2 main references (sources)	Fundamentals of programming in Pascal language. Written by Dr.
Recommended books and references (scientific journals, reports, ….)	Benefit from periodicals and resources related to the course
B- Electronic references, websites…	Benefit from the international information network as well-known sources

plan Development scheduled scholastic
1. Done Development scheduled According to requirements Which Appear in Development curricula in Phase education Basis. 2. Done Development scheduled According to requirements Which Appear in Development curricula in the system Global.