



**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

2025/2026

Introduction

The Educational Program is a coordinated and organized package of academic courses that includes procedures and experiences structured as syllabi. Its primary purpose is to build and refine the skills of graduates, making them qualified to meet labor market requirements. The program is reviewed and evaluated annually through internal or external auditing procedures and programs, such as the External Examiner Program.

The Academic Program Description provides a summary of the key features of the program and its courses, outlining the skills intended for students to acquire, which are developed in accordance with the Academic Program Objectives. The importance of this description lies in its role as the cornerstone for obtaining Program Accreditation. It is co-authored by the teaching faculty under the supervision of scientific committees within the academic departments.

This guide, in its second edition, includes a description of the academic program after updating the sections and items of the previous guide in light of the latest developments in the Iraqi higher education system. This includes the traditional academic program description: (annual and semester systems), as well as the adoption of the standardized academic program description issued by the Department of Studies (Document No. TM3/2906 on May 3, 2023) regarding programs that adopt the Bologna Process as their operational basis.

In this regard, we emphasize the importance of writing academic program and course descriptions to ensure the proper conduct of the educational process.

Concepts and Terminology

- **Academic Program Description:** Provides a concise summary of the program's vision, mission, and objectives, including a precise description of the intended learning outcomes based on specific learning strategies.
- **Course Description:** Provides a brief summary of the course's most important characteristics and the expected learning outcomes for the student, demonstrating whether the maximum benefit from the available learning opportunities has been achieved. It is derived from the Program Description.
- **Program Vision:** An ambitious image of the academic program's future, designed to be advanced, inspiring, motivating, realistic, and applicable.
- **Program Mission:** Briefly outlines the objectives and activities necessary for their achievement, as well as defining the program's development paths and directions.
- **Program Objectives:** Statements describing what the academic program intends to achieve within a specific timeframe; these must be measurable and observable.
- **Curriculum Structure:** Refers to all academic courses/subjects included in the academic program according to the adopted learning system (Semester, Annual, or Bologna Process), whether they are requirements at the level of the (Ministry, University, College, or Department), along with the number of credit units.
- **Learning Outcomes:** A compatible set of knowledge, skills, and values acquired by the student upon successful completion of the

academic program. Learning outcomes for each course must be defined in a way that fulfills the overall program objectives.

- **Teaching and Learning Strategies:** The strategies used by the faculty member to develop student teaching and learning. They are plans followed to reach learning goals and describe all classroom and extra-curricular activities designed to achieve the program's learning results.

Academic Program Description Form

University Name: Al-Zahraa University for Women

Faculty/Institute: Education

Scientific Department: Mathematics

Academic or Professional Program Name: Bachelor of Humanities

Final Certificate Name: Bachelor of Education in Mathematics

Academic System: Semester-based courses

Description Preparation Date: 1/10/2025

File Completion Date: 1/10/2025

Signature:

Head of Department Name:

Yaseen M. Hanzah

Date: 1/10/2025

Signature:

Scientific Associate Name:

Date:

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance

Department: Dr. Dheir Pullah Zamil Harbi

Date:

Signature:

Approval of the Dean

prof. Dr. Emam S. B Hay

1. Program Vision

Excellence in mathematical education and scientific research to contribute to the building of a knowledge-based society.

2. Program Mission

"Preparing qualified graduates in mathematical sciences who possess analytical and technical skills that enable them to compete in the labor market and scientific research."

3. Program Objectives

- 1- Provide students with fundamental knowledge in various branches of mathematics (Algebra, Analysis, Geometry, and Statistics).**
- 2- Enable students to understand core concepts and topics in mathematics.**
- 3- Develop students' abilities to formulate mathematical proofs and verify their validity.**
- 4- Ensure students have a solid understanding of mathematical applications across various fields and the ability to diagnose and solve related problems.**
- 5- Empower students to utilize mathematical software (such as MATLAB or Mathematica) for problem-solving.**
- 6- graduates to meet the requirements of the national labor market.**
- 7- Prepare students for postgraduate studies and. specialized scientific research.**
- 8- Qualify cadres capable of dealing with advanced technologies and modern changes with efficiency and flexibility.**

4- Program Accreditation

Under Process

5–External Factors

Instructions of the Ministry of Higher Education and Scientific Research (MOHESR)

6– Program Structure

Program Structure	Number of Courses	Credit Units	Percentage (%)	Notes*
University Requirements	9	18	%12	Core Course
College Requirements	15	30	%20	Core Course
Department Requirements	32	100	%68	Core Course
Summer Training	NONE			

7- Academic Program Description

Year	Total Number of Courses for the Year
First Year	16
Second Year	16
Third Year	15
Fourth Year	9
Total Number of Courses	56

First-Year Courses

First Semester							
Number of Units	Number of Hours			Course Coding	Course Name in English	Course Name in Arabic	ت
	Tutorial	Practical	Theoretical				
4	2	/	3	EMaCa1101	Calculus I	التفاضل والتكامل I	1
3	2	/	2	EMaFM1102	Foundations of Mathematics I	اسس الرياضيات I	2
3	2	/	2	EMaLA1103	Linear Algebra I	الجبر الخطي I	3
2	/	/	2	EMaGP1104	General Physics I	الفيزياء العامة I	4
2	/	2	1	EMaCS1105	Computer Science I	الحاسوب I	5
2	/	/	2	EMaBP1106	Basics of Psychology	اساسيات علم النفس	6
2	/	/	2	EMaEL1107	English Language I	اللغة الإنكليزية I	7
18	6	2	14	مجموع الساعات والوحدات			

second Semester							
Number of Units	Number of Hours			Course Coding	Course Name in English	Course Name in Arabic	ت
	Tutorial	Practical	Theoretical				
4	2	/	3	EMaCa2101	Calculus II	التفاضل والتكامل II	1
3	2	/	2	EMaFM2102	Foundations of Mathematics II	أسس الرياضيات II	2
3	2	/	2	EMaLA2103	Linear Algebra II	الجبر الخطي II	3
2	/	/	2	EMaGP2104	General Physics II	الفيزياء العامة II	4
2	/	2	1	EMaCS2105	Computer Science II	الحاسوب II	5
2	/	/	2	EMaAL2106	Arabic Language	اللغة العربية	6
2	/	/	2	EMaPE2107	Principles of Education	اصول التربية والتعليم	7
2	/	/	2	EMaDHR2108	Democracy and Human Rights	الديمقراطية وحقوق الانسان	8
20	6	2	16	مجموع الساعات والوحدات			

Second -Year Courses

First Semester							
Number of Units	Number of Hours			Course Coding	Course Name in English	Course Name in Arabic	ت
	Tutorial	Practical	Theoretical				
4	2	/	3	EMaAC1201	Advanced Calculus I	تفاضل وتكامل متقدم	1
3	2	/	2	EMaGA1202	Group Algebra I	جبر الزمرا	2

3	2	/	2	EMaODE1203	Ordinary Differential Equations I	المعادلات التفاضلية الاعتيادية I	3
3	2	/	2	EMaAS1204	Axiomatic systems	نظم البديهيات	4
2	/	2	1	EMaACS1205	Advanced Computer Science I	الحاسوب المتقدم	5
2	/	/	2	EMaAS1206	Administration and supervision	الإدارة والإشراف	6
2	/	/	2	EMaEL1207	English Language II	اللغة الانكليزية II	7
2	/	/	2	EMaCBS1208	Crimes of the Al-Baath system in Iraq	جرائم نظام البعث في العراق	8
21	8	2	16	مجموع الساعات والوحدات			

Second Semester							
Number of Units	Number of Hours			Course Coding	Course Name in English	اسم المادة باللغة العربية	ت
	Tutorial	Practical	Theoretical				
4	2	/	3	EMaAC2201	Advanced Calculus II	تفاضل وتكامل متقدم II	1
3	2	/	2	EMaGA2202	Group Algebra II	جبر الزمر II	2
3	2	/	2	EMaODE2203	Ordinary Differential Equations II	المعادلات التفاضلية الاعتيادية II	3
3	2	/	2	EMaGe2204	Geometry	الهندسة II	4
2	/	2	1	EMaACS2205	Advanced Computer Science II	الحاسوب المتقدم II	5

2	/	/	2	EMaRM2206	Research Methodology	منهج البحث العلمي	6
2	/	/	2	EMaAL2207	Arabic Language	اللغة العربية	7
2	/	/	2	EMaGP2208	Growth Psychology	علم النفس النمو	8
21	8	2	16	مجموع الساعات والوحدات			

Third –Year Courses

First Semester							
Number of Units	Number of Hours			Course Coding	Course Name in English	Course Name in Arabic	ت
	Tutorial	Practical	Theoretical				
3	2	/	2	EMaMA1301	Mathematical Analysis I	التحليل الرياضي	1
3	2	/	2	EMaRA1302	Rings Algebra I	جبر الحلقات	2
3	/	2	2	EMaNA1303	Numerical Analysis I	التحليل العددي	3
3	2	/	2	EMaPDE1304	Partial Differential Equations I	المعادلات التفاضلية الجزئية	4
3	2	/	2	EMaSP1305	Statistics and Probability I	الاحصاء والاحتمالية	5
2	/	/	2	EMaMC1306	Methodology and Curriculum	مناهج وطرائق التدريس	6
17	8	2	12	مجموع الساعات والوحدات			

Second Semester							
Number of Units	Number of Hours			Course Coding	Course Name in English	Course Name in Arabic	ت
	Tutorial	Practical	Theoretical				
3	2	/	2	EMaMA2301	Mathematical Analysis II	التحليل الرياضي II	1
3	2	/	2	EMaRA2302	Rings Algebra II	جبر الحلقات II	2
3	/	2	2	EMaNA2303	Numerical Analysis II	التحليل العددي II	3
3	2	/	2	EMaPDE2304	Partial Differential Equations II	المعادلات التفاضلية الجزئية II	4
3	2	/	2	EMaSP2305	Statistics and Probability II	الاحصاء و الاحتمالية II	5
3	2	/	2	EMaOR2306	Operation Research (optional 1)	بحوث العمليات (اختياري 1)	6
2	/	/	2	EMaGPH2307	Guidance & Psychological Health	الارشاد والصحة النفسية	7
20	10	2	14	مجموع الساعات والوحدات			

Fourth-Year Courses

First Semester						
Number of Units	Number of Hours		Course Coding	Course Name in English	Course Name in Arabic	ت
	Practical	Theoretical				
4	/	3	EMaGT1401	General Topology	التيولوجيا العامة	1

4	2	/	3	EMaCA1402	Complex Analysis	التحليل عقدي	2
4	2	/	3	EMaMS1403	Mathematical Statistics	الإحصاء الرياضي	3
3	2	/	2	EMaFA1404	Functional Analysis (optional III)	تحليل داني (اختياري (III)	4
3	2	/	2	EMaDS1405	Dynamical Systems (Optional II)	نظم ديناميكية (اختياري (II)	5
2	/	/	2	EMaEM1406	Evaluation and Measurement	القياس والتقويم	6
20	10		15	مجموع الساعات والوحدات			

Fourth-Year Requirements across the First and Second Semesters						
Number of Units	Number of Hours		Course Coding	Course Name in English	Course Name in Arabic	ت
	Practical	Theoretical				
4	/	2	EMaRP2401	Research Project	مشروع بحث	1
4	4	/	EMaPE2402	Practical Education	التربية العملية (مشاهدة وتطبيق)	2
8	4	2	مجموع الساعات والوحدات			

مخطط مهارات المنهج																			
يرجى وضع اشارة في المربعات المقابلة لمخرجات التعلم الفردية من البرنامج الخاضعة للتقييم																			
مخرجات التعلم المطلوبة من البرنامج																			
المهارات العامة والتأهيلية (المهارات المنقولة) الأخرى المتعلقة بقبالية التوظيف والتطور الشخصي				الأهداف الوجدانية والقيمية				الأهداف المهاراتية الخاصة بالبرنامج				الأهداف المعرفية				أساسي أم اختياري	اسم المقرر	رمز المقرر	السنة / المستوى
د4	د3	د2	د1	ج4	ج3	ج2	ج1	ب4	ب3	ب2	ب1	أ4	أ3	أ2	أ1				
	#		#			#	#		#		#			#	#	اساسي	حسبان التفاضل والتكامل II	Math114	الاولى
		#					#			#				#		اساسي	اسس الرياضيات II	Math115	
	#		#			#	#		#		#			#	#	اساسي	لغة انجليزية	UREQ102	
	#		#			#	#		#		#			#	#	اساسي	اسس برجمة لغة باسكال	Math116	
		#			#	#					#		#			اساسي	التفاضل والتكامل المتقدم II	Math222	الثانية
#			#				#				#			#	#	اساسي	معادلات تفاضلية اعتيادية II	Math220	
	#		#			#	#		#		#			#	#	اساسي	جبر خطي II	Math223	
																اساسي	حزمة برامج الماتلاب	CR208	
																اساسي	نظرية الزمر II	Math224	الثالثة
		#				#				#	#		#			اساسي	التحليل الرياضي II	Math332	
	#		#			#	#			#				#	#	اساسي	التحليل العددي II	Math334	
																	نظرية الحلقات II	Math333	
		#					#			#				#		اساسي	التحليل العقدي II	Math442	الرابعة
			#			#					#					اساسي	التبولوجي II	Math441	
	#		#			#	#		#		#			#	#	اختياري	تحليل دالي II	Math439	

