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

## **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 3/5/2024 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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: .....Tikrit university ..... Faculty/Institute: ......College of science ...... Scientific Department: ......Biology ...... Academic or Professional Program Name:... Bachelor of Biology... Final Certificate Name: ..... Bachelor of Biology.... Academic System: ......Semesters ...... Description Preparation Date: 5/10/2024 File Completion Date: 2025/02/14

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

#### 1. Program Vision

Creating a distinguished scientific base for basic sciences that meets the requirements of society and industrial institutions and fills their needs, so that the college becomes unique with a distinguished scientific personality to achieve academic standards and reach Arab and international accreditation during the next five years.

#### 2. Program Mission

Providing an advanced educational environment and developing a nucleus for scientific research capable of providing society with scientific competencies and trained specialized personnel through the introduction of the latest scientific technologies.

#### 3. Program Objectives

1- Creating awareness and belief among the graduate in the civilizational mission of our nation and its pioneering and historical role in the emergence of human scientific civilization and its scientific development.

2- Preparing the specialized graduate who is familiar with the theoretical foundations of basic sciences and their field applications.

3- Providing the graduate with the scientific expertise required by the future field of work and informing him of the latest technical developments.

4- Creating a qualified cadre to engage in the field of university education in the future and capable of advancing the educational process in the various fields of science.

5- Qualifying scientific researchers who have the correct foundations for scientific research and development to be able to support the scientific and technological research movement in the country.

6- Preparing graduates capable of absorbing and dealing with advanced modern technologies and contributing to their future development.

7- Qualifying distinguished graduates who are able to engage in postgraduate studies to contribute effectively to science to solve complex scientific and technical dilemmas to develop other scientific and technical fields.

8- Preparing scientific cadres that deal rationally with science in order to serve humanity and the environment and have an effective role in global scientific activity through their contribution to international scientific conferences.

9- Paying attention to forming the basic base for specialized postgraduate studies in the relevant departments and encouraging them to do so in order to keep pace with development. 10- Upgrading the level of technical and administrative staff to support the educational process and create new capabilities commensurate with quality requirements.

11- Diversifying sources of educational culture and linking the student's scientific concepts to the problems of the surrounding environment.

#### 4. Program Accreditation

Does the program have program accreditation? And from which agency? 12- Achieving educational goals and outcomes that meet distinguished academic standards.

13- Developing and developing the capabilities of faculty members.

14- Providing scientific services and consultations to various sectors of the state and private companies.

#### 5. Other external influences

no

6. Program Structure					
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*	
Institution Requirements	8	90		Essential	
College Requirements	Yes				
Department Requirements	Yes				
Summer Training	Yes				
Other					

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

7. Program Description					
Year/Level	Course Code	Course Name		Credit Hours	
4		Genetic microbiology		practical	

8. Expected learning outcomes of the program

Knowledge	
Learning Outcomes 1	<ul> <li>A1- To create an appropriate environment that promotes learning and growth and imparts the ability to work with multidisciplinary groups in professional, health and research organizations</li> <li>A2- To expand and deepen their abilities in analytical and experimental research methods, data analysis, and drawing relevant conclusions for scientific writing and presentation.</li> <li>A3- Introducing the student to the basic principles related to the science of pathological analysis and everything related to it.</li> </ul>
Skills	
Learning Outcomes 2	B1 - Learn the ability to understand and comprehend
	B2 - Learn the ability to remember
	B3 - Learn the ability to relate and deduce
Learning Outcomes 3	Learning Outcomes Statement 3
Ethics	
Learning Outcomes 4	1-Powerpoint
	2-PDF
	3- Word
	4- Educational videos

#### 9. Teaching and Learning Strategies

At the end of the year, the student will be familiar with the following:

1- Introducing the student to the basic principles related to genetic microbiology analyses

2- The teaching of this course aims to cover topics in theoretical foundations that include the process of mechanisms for the occurrence of pathological conditions, the disorders that occur, and the diseases resulting from these disorders.

3 - The student gets to know the natural forms and pathological conditions, as well as the student's knowledge of normal and abnormal values (genetic microbiology conditions), as well as teaching the student the genetic microbiology conditions that lead to an increase or decrease in these values.
4- Giving the student an expanded and modern idea about the science of pathological analyzes and the normal and abnormal ranges, in addition to the changes that occur when infected with various diseases.

#### **10. Evaluation methods**

Weekly, monthly, daily exams and the end-of-semester exam.

#### 11.Faculty Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
lecturer	Biology	Microbiology			/	

#### **Professional Development**

Mentoring new faculty members

Orienting new faculty members.

Professional development of faculty members

Professional development for faculty members.

#### 12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

#### 13. The most important sources of information about the program

### Medical Microbiology. 4th edition.

14. Program Development Plan

Updating curricula according to recent scientific discoveries.

	Program Skills Outline														
							Req	uired	progr	am Lo	earnin	g outcon	ies		
Year/Level	Course Code	Course Name	Basic or optional	Kno	Knowledge Skills Ethics										
	•	A1	A3	A4	B1	B2	<b>B3</b>	B4	C1	C2	C3	<b>C4</b>			
2024/2025		Genetic Microbiol ogy	Basic		*					*			*		

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

### **Course Description Form**

1. Course Name:

Genetic microbiology

2. Course Code:

3. Semester / Year:

Semester

4. Description Preparation Date:

14/02/2025

5. Available Attendance Forms:

In person only

### 6. Number of Credit Hours (Total) / Number of Units (Total)

45 hours per semester

## 7. Course administrator's name (mention all, if more than one name) Name: Fatima M. Mahdi

Email: ffatima.m.mahdi@tu.edu.iq

8. Course Objectives					
At the end of the year, the stu	dent will be familiar wi	•			
the following:		•			
1- Introducing the student to t	the basic principles rela	•			
to Genetic microbiology					
2 The teaching of this cours	e aims to cover topics in				
theoretical foundations that in	clude the process of				
mechanisms for the occurrence	e of Genetic microbiolo				
the disorders that occur, and	the diseases resulting fr				
these disorders.					
<b>3</b> - The student gets to know the	he natural forms and				
Genetic microbiology conditio	ons, as well as the stude				
knowledge of normal and abn	ormal values (patholog				
conditions), as well as teaching	g the student the Genet				
microbiology conditions that I	ead to an increase or				
decrease in these values.					
4- Giving the student an ex	panded and modern i				
about the science of Genetic	microbiology analyzes				
the normal and abnormal r	anges, in addition to				
changes that occur when infec	ted with various diseas				
9. Teaching and Lear	ning Strategies				
Strategy					
1-	Educational strate	egy, collaborative concept planning.			
2-	2- Brainstorming education strategy.				
3- Education Strategy Notes Series					
J- Buucation Strategy Notes Series					
10. Course Structure					
9					

Hours	Required Learning	Unit on name	or subject	Learning method	Evaluation method		
	Outcomes				momou		
2	1- Providing students with analysis skills. 2- Informing students about the most important modern source in the field of pathological analyses.		Genetic microbiology	1-Learn the ability to understand and assimila 2- Learn the ability to remember 3- Learn t ability connect a deduce	Weekly, monthly, daily, writt and end- semester exams.		
se Evalua	tion						
ution is a	s follows: 25 mark	s for m	onthly and dail	ly exams for the	semester. 50		
ing and 7	Feaching Resource	ces					
xtbooks (c	urricular books, if a	ny)	Medical Microbiology. 4 edition.				
nces (sour	ces)		MICROBIOLOGY AND GENETICS				
			Issue: Why M 05 May 2020	icrobiology Mat <b>ARTICLE</b>	ters		
Recommended books and references (scientific journals, reports)			Del Du Fani Evoluti 23;10(7 10.3390 PMID: PMC93	aca S, Vassallo R. Microbial on. Microorgan 7):1274. 0/microorganisr 3588899 315481. c references Interne	A, Mengoni Genetics a nisms. 2022 . c ns10071274. 3; PMC.		
	Hours 2 2 Se Evalua vition is a inal exam ing and ' xtbooks (c nces (sour ded books ports)	Hours       Required Learning Outcomes         2       1- Providing students with analysis skills.         2- Informing students about the most important modern source in the field of pathological analyses.         se Evaluation         set Evaluation         pathological analyses.         set Evaluation         nution is as follows: 25 mark inal exams         ing and Teaching Resour- xtbooks (curricular books, if a         nces (sources)         ded books and references (sci ports)	Hours       Required Learning Outcomes       Unit of name         2       1- Providing students with analysis skills.       2         2- Informing students about the most important modern source in the field of pathological analyses.       4         se Evaluation       4         se Evaluation       4         ution is as follows: 25 marks for minal exams       5         ning and Teaching Resources       5         xtbooks (curricular books, if any)       6         nces (sources)       4	Hours       Required Learning Outcomes       Unit or subject name         2       1- Providing students with analysis skills.       Genetic microbiology         2- Informing students about the most important modern source in the field of pathological analyses.       Genetic microbiology         se Evaluation       modern source in the field of pathological analyses.       MicroBiological analyses         se Evaluation       modern sources       MicroBiological analyses         ring and Teaching Resources       MicroBiological subooks (curricular books, if any)       Medic editio         nces (sources)       MicroBiologi Issue: Why M 05 May 2020       Se Evaluation Issue: Why M 05 May 2020         ded books and references (scientific ports)       Del Du Fani Evoluti 23;10(7) 10.339       Del Du Fani Evoluti 23;10(7) 10.399	Hours       Required Learning Outcomes       Unit or subject name       Learning method         2       1 - Providing students with analysis skills.       1 - Learn the ability to understand and assimila 2 - Informing students about the most important modern source in the field of pathological analyses.       1 - Learn the ability to remember 3 - Learn the ability connect a deduce         see Evaluation       3 - Learn the ability connect a deduce       4		



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

## **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 3/5/2024 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:**

<u>Academic Program Description</u>: 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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.

<u>Curriculum Structure:</u> 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 extracurricular activities to achieve the learning outcomes of the program.

#### **Academic Program Description Form**

University Name: .....Tikrit university ..... Faculty/Institute: ......College of science ...... Scientific Department: ......Biology ...... Academic or Professional Program Name:... Bachelor of Biology... Final Certificate Name: ..... Bachelor of Biology.... Academic System: ......Semesters ...... Description Preparation Date: 5/10/2024 File Completion Date: 2025/02/14

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

#### 1. Program Vision

Creating a distinguished scientific base for basic sciences that meets the requirements of society and industrial institutions and fills their needs, so that the college becomes unique with a distinguished scientific personality to achieve academic standards and reach Arab and international accreditation during the next five years.

#### 2. Program Mission

Providing an advanced educational environment and developing a nucleus for scientific research capable of providing society with scientific competencies and trained specialized personnel through the introduction of the latest scientific technologies.

#### 3. Program Objectives

1- Creating awareness and belief among the graduate in the civilizational mission of our nation and its pioneering and historical role in the emergence of human scientific civilization and its scientific development.

2- Preparing the specialized graduate who is familiar with the theoretical foundations of basic sciences and their field applications.

3- Providing the graduate with the scientific expertise required by the future field of work and informing him of the latest technical developments.

4- Creating a qualified cadre to engage in the field of university education in the future and capable of advancing the educational process in the various fields of science.

5- Qualifying scientific researchers who have the correct foundations for scientific research and development to be able to support the scientific and technological research movement in the country.

6- Preparing graduates capable of absorbing and dealing with advanced modern technologies and contributing to their future development.

7- Qualifying distinguished graduates who are able to engage in postgraduate studies to contribute effectively to science to solve complex scientific and technical dilemmas to develop other scientific and technical fields.

8- Preparing scientific cadres that deal rationally with science in order to serve humanity and the environment and have an effective role in global scientific activity through their contribution to international scientific conferences.

9- Paying attention to forming the basic base for specialized postgraduate studies in the relevant departments and encouraging them to do so in order to keep pace with development.

10- Upgrading the level of technical and administrative staff to support the educational process and create new capabilities commensurate with quality

requirements.

11- Diversifying sources of educational culture and linking the student's scientific concepts to the problems of the surrounding environment.

#### 4. Program Accreditation

Does the program have program accreditation? And from which agency?

12- Achieving educational goals and outcomes that meet distinguished academic standards.

13- Developing and developing the capabilities of faculty members.

14- Providing scientific services and consultations to various sectors of the state and private companies.

5. Other external influences	S
------------------------------	---

no

6. Program Structure					
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*	
Institution Requirements	8	90		Essential	
College Requirements	Yes				
Department Requirements	Yes				
Summer Training	Yes				
Other					

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

7. Program Description						
Year/Level	Course Code	Course Name		Credit Hours		
4		Industrial microbiology	theoretical	practical		

8. Expected learning outcomes of the program				
Knowledge				
Learning Outcomes 1	<ul><li>A1- Introducing the student to the basic field related to the field of industrial microbiology</li><li>A2 Formulating this course into a vocabulary of topics in the</li></ul>			

	emerging foundations that include the industrial fermentation			
	process. And the student learns about the different types of			
	microorganisms that are important for industry, as well as knowing			
	the ways in which these microorganisms affect industry and is able to			
	produce			
	A3- Giving the student an expanded idea and conversation about			
	industrial microbiology and learning about the ways microorganisms			
	influence and impact various industries.			
Skills				
Learning Outcomes 2	B1 - Learn the ability to understand and comprehend			
_	B2 - Learn the ability to remember			
	B3 - Learn the ability to relate and deduce			
Learning Outcomes 3	Learning Outcomes Statement 3			
Ethics				
Learning Outcomes 4	1-Powerpoint			
_	2- PDF			
	3- Word			
	4- Educational videos			

#### 9. Teaching and Learning Strategies

At the end of the year, the student will be familiar with the following: 1- Introducing the student to the basic principles related to industrial microbiology and microbial fermentations

2- Teaching this course aims to introduce topics on theoretical foundations that include the process of exploiting microorganisms in various industries.

3 - The student learns about the types of microorganisms that can be exploited industrially and increase fermentation processes and other types that are harmful and negatively affect manufacturing processes and microbial fermentations.
4- Giving the student an expanded idea and talk about industrial fermentations and the microorganisms used in industrial fermentations to obtain desirable products.

#### **10. Evaluation methods**

Weekly, monthly, daily exams and the end-of-semester exam.

11.Faculty					
<b>Faculty Members</b>					
Academic Rank	Specializ	ation	Special Requirements/Skills (if applicable)	Number of the	teaching staff
	General	Special		Staff	Lecturer

|--|

Professional Development
Mentoring new faculty members
Orienting new faculty members.
Professional development of faculty members
Professional development for faculty members.

#### 12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

#### 13. The most important sources of information about the program

-Modren industrial microbiology and biotechnology, 2007, Nduka Okafor, USA

14.Program Development Plan

Updating curricula according to recent scientific discoveries.

			Pro	ogram	Skills	Outl	ine								
							Req	uired	progr	am L	earnin	g outcon	nes		
Year/Level	Course Code	Course Name	Basic or optional	Knov	wledge			Skills	5			Ethics			
				A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	<b>C4</b>
2024/2025		Industrial microbiology	Basic												
															<b></b>

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

## **Course Description Form**

1.	Cours	e Na	me:			
Indust	rial n	nicro	biology			
2.	Cours	e Co	de:			
3. 1	Seme	ster	/ Year:			
4/8						
4. ]	Descr	iptio	n Preparation Da	ate:		
14/02/	2025					
5	Availa	able A	Attendance Forms	:		
]	ln per	son	only			
6.	Numb	er of	Credit Hours (To	tal) / Number of U	Units (Total)	
	75 ho	urs p	oer semester			
7.	Cours	se ao	dministrator's na	me (mention all,	if more than or	ne name)
]	Name	: Sur	a Hameed Nayye	ef		
]	Email	: <u>sur</u>	abio84@tu.edu.io	đ		
8.	Cours	e Ob	jectives		•	
At the end	nd of the second	<b>1e yea</b> he stu	<b>r, the student will be</b> t dent to the basic princip	familiar with the follo	wing: $\bullet$	••••
microbic	ology ar	nd mic	robial fermentations	pies related to industria	•	••••
2- Teacl	ning thi	s cour	se aims to introduce to	pics on theoretical		••••
foundati	ons that	t inclu	de the process of explo	iting microorganisms in	n	
various i	naustrie	es.				
3 - The s	tudent	learns	about the types of mice	roorganisms that can be	e	
exploited	indust	rially	and increase fermentat	ion processes and other		
and micr	it are ha	irmful erment	and negatively affect f	nanufacturing processe	S	
4- Givin	g the st	udent	an expanded idea and t	alk		
about inc	lustrial	ferme	entations and the micro	organisms		
used in it	ndustria	al fern	nentations to obtain			
Q '	Feach	ing a	nd Learning Strat	eoies		
Strategy	, ouen	ing a	ind Loanning Strat	65165		
			1- Educational	strategy collabo	rative concent r	lanning
			2- Brainstormi	ng education stra	tegy	
			3- Education St	trategy Notes Ser	ies	
			5 Laucation D			
10. Co	ourse	Struc	cture			
Week	Hour	ſS	Required	Unit or subject	Learning	Evaluation
			Learning	name	method	method
			Outcomes			

		r				
1	2			Pathologi	1-Learn the	Weekly,
2	2	1- Providing		analysis	ability to	monthly,
3	2	students with th			understand	daily,
4	2	skill of detectior			And	written
5	2	and methods for			assimilate	and
6	2	isolating			2- Learn the	end-of-
7	2	industrially			ability to	semester
8	2	important			remember	exams.
9	2	microorganisms			3- Learn	
10	2	2- Informing			the ability	
11	2	students about			connect	
12	2	the most			and deduce	
12	2	important mode				
1.0	2	sources in the				
14		field of industria				
-		microbiology.				
11.Co	ourse Eval	uation				
The dis	tribution is	as follows: 25 mark	s for n	nonthly and	daily exams for th	e semester. 50
marks f	or final exa	ms				
12.Le	arning and	1 Teaching Resource	ces	Econticle -f	Inductional Microhian	any Deserts
Require	a textbooks	(curricular books, if a	ny)	Rai.2012	Industrial Microbiolo	ogy, Basanta
Main re	ferences (so	urces)		-Modren	industrial mi	crobiology a
				biotechnol	logy , 2007, Ndu	ka Okafor, US
Recomm	nended bool	ks and references (scie	entific	FOOD AN	D INDUSTRIAL MI	CROBIOLOGY, S
journals	, reports)	<b>XX7 1</b>		Senan, R.	K. Malık & ShilpaVi	]
Electron	nc Referenc	es, Websites		https://www	w researchaste n	ot/
				<u>mups.//ww</u>	w.iesearciigate.ii	



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

## **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 3/5/2024 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.

<u>Course Description</u>: 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.

1

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

**<u>Program Mission</u>**: 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.

<u>**Curriculum Structure:**</u> 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: .....Tikrit university ..... Faculty/Institute: ......College of science ...... Scientific Department: ......Biology ...... Academic or Professional Program Name:... Bachelor of Biology... Final Certificate Name: ..... Bachelor of Biology.... Academic System: ......Semesters ...... Description Preparation Date: 5/10/2024 File Completion Date: 2025/02/14

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

**Approval of the Dean** 

#### 1. Program Vision

Creating a distinguished scientific base for basic sciences that meets the requirements of society and industrial institutions and fills their needs, so that the college becomes unique with a distinguished scientific personality to achieve academic standards and reach Arab and international accreditation during the next five years.

#### 2. Program Mission

Providing an advanced educational environment and developing a nucleus for scientific research capable of providing society with scientific competencies and trained specialized personnel through the introduction of the latest scientific technologies.

#### 3. Program Objectives

1- Creating awareness and belief among the graduate in the civilizational mission of our nation and its pioneering and historical role in the emergence of human scientific civilization and its scientific development.

2- Preparing the specialized graduate who is familiar with the theoretical foundations of basic sciences and their field applications.

3- Providing the graduate with the scientific expertise required by the future field of work and informing him of the latest technical developments.

4- Creating a qualified cadre to engage in the field of university education in the future and capable of advancing the educational process in the various fields of science.

5- Qualifying scientific researchers who have the correct foundations for scientific research and development to be able to support the scientific and technological research movement in the country.

6- Preparing graduates capable of absorbing and dealing with advanced modern technologies and contributing to their future development.

7- Qualifying distinguished graduates who are able to engage in postgraduate

studies to contribute effectively to science to solve complex scientific and technical dilemmas to develop other scientific and technical fields.

8- Preparing scientific cadres that deal rationally with science in order to serve humanity and the environment and have an effective role in global scientific activity through their contribution to international scientific conferences.

9- Paying attention to forming the basic base for specialized postgraduate studies in the relevant departments and encouraging them to do so in order to keep pace with development.

10- Upgrading the level of technical and administrative staff to support the educational process and create new capabilities commensurate with quality requirements.

11- Diversifying sources of educational culture and linking the student's scientific concepts to the problems of the surrounding environment.

#### 4. Program Accreditation

Does the program have program accreditation? And from which agency? 12- Achieving educational goals and outcomes that meet distinguished academic standards.

13- Developing and developing the capabilities of faculty members.

14- Providing scientific services and consultations to various sectors of the state and private companies.

#### 5. Other external influences

no

#### 6. Program Structure **Program Structure** Number of **Credit hours Reviews\*** Percentage Courses Institution 3 90 Essential **Requirements** College Requirements Yes Department Yes **Requirements Summer Training** Yes Other

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

7. Program De	escription			
Year/Level	Course Code	Course Name		Credit Hours
2025-2024/4		Medical insects and arachnids	theoretical	practical

8. Expected learning	outcomes of the program
Knowledge	
Learning Outcomes 1	Giving general definitions of the basics of insects, identifying the insect's external parts and internal organs, and studying the pathological conditions that arise from insects and their relationship to the general health of humans and animals, the spread and distribution of insects, the periods of their appearance, and the conditions affecting that.
Skills	
Learning Outcomes 2	<ul><li>B1 - Learn the ability to understand and comprehend</li><li>B2 - Learn the ability to remember</li><li>B3 - Learn the ability to relate and deduce</li></ul>
Learning Outcomes 3	Learning Outcomes Statement 3
Ethics	
Learning Outcomes 4	<ul><li>1-Powerpoint</li><li>2- PDF</li><li>3- Word</li><li>4- Educational videos</li></ul>

#### 9. Teaching and Learning Strategies

A- Cognitive objectives

1- Enabling students to know the science of medical insects and their benefits and harms

2- Introducing students to insect species that are harmful and beneficial to humans and animals

- 3- Teaching students how to write the scientific name of the studied insect species
- 4- Identify the existing local insect species
- 5- To recall the information he studied carefully and verify it practically.

#### **10. Evaluation methods**

Weekly, monthly, daily exams and the end-of-semester exam.

<b>11.Faculty</b>						
<b>Faculty Members</b>						
Academic Rank	Specializa	ation	Special Requirement (if applicable	s/Skills )	Number of the	teaching staff
	General	Special			Staff	Lecturer
Assistant Prof	Biology	Entomology			/	

Professional Development
Mentoring new faculty members
Orienting new faculty members.
Professional development of faculty members
Professional development for faculty members.

#### 12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

#### 13. The most important sources of information about the program

The book of medical insects and arachnids, by Salem Jamil Jarjis.

#### 14.Program Development Plan

Updating curricula according to modern information and applications in medical entomology and activating field work.

			Pro	gram	Skills	outl	ine								
							Req	uired	progr	am Lo	earnin	g outcon	ies		
Year/Level	Course Code	Course Name	Basic or optional	Knov	wledge			Skill	5			Ethics			
				A1	A2	A3	A4	B1	B2	<b>B3</b>	B4	C1	C2	C3	C4
2024/2025		Medical insects and arachnids	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

## **Course Description Form**

Medical insects and arachnids         2. Course Code:         3. Semester / Year:         Semester         4. Description Preparation Date:         14/ 03/ 2025         5. Available Attendance Forms:         In person only         6. Number of Credit Hours (Total) / Number of Units (Total)         30 hours per semester         7. Course administrator's name (mention all, if more than one name)         Name:Ahmed Ali Essa + Estabraq Mahmood Mahdi         Email: e.m.mahdee@tu.edu.iq         +dhefaf.radi@tu.edu.iq dhefaf.radi
<ul> <li>2. Course Code:</li> <li>3. Semester / Year:</li> <li>Semester</li> <li>4. Description Preparation Date:</li> <li>14/ 03/ 2025</li> <li>5. Available Attendance Forms: <ul> <li>In person only</li> </ul> </li> <li>6. Number of Credit Hours (Total) / Number of Units (Total)</li> <li>30 hours per semester</li> </ul> <li>7. Course administrator's name (mention all, if more than one name) <ul> <li>Name:Ahmed Ali Essa + Estabraq Mahmood Mahdi</li> <li>Email: e.m.mahdee@tu.edu.iq</li> <li>+dhefaf.radi@tu.edu.iq dhefaf.radi</li> </ul> </li>
<ul> <li>2. Course Code:</li> <li>3. Semester / Year:</li> <li>Semester</li> <li>4. Description Preparation Date:</li> <li>14/ 03/ 2025</li> <li>5. Available Attendance Forms: <ul> <li>In person only</li> </ul> </li> <li>6. Number of Credit Hours (Total) / Number of Units (Total)</li> <li>30 hours per semester</li> </ul> <li>7. Course administrator's name (mention all, if more than one name) <ul> <li>Name:Ahmed Ali Essa + Estabraq Mahmood Mahdi</li> <li>Email: e.m.mahdee@tu.edu.iq</li> <li>+dhefaf.radi@tu.edu.iq dhefaf.radi</li> </ul> </li>
<ul> <li>3. Semester / Year:</li> <li>Semester</li> <li>4. Description Preparation Date:</li> <li>14/ 03/ 2025</li> <li>5. Available Attendance Forms: <ul> <li>In person only</li> </ul> </li> <li>6. Number of Credit Hours (Total) / Number of Units (Total)</li> <li>30 hours per semester</li> </ul> <li>7. Course administrator's name (mention all, if more than one name) <ul> <li>Name:Ahmed Ali Essa + Estabraq Mahmood Mahdi</li> <li>Email: e.m.mahdee@tu.edu.iq</li> <li>+dhefaf.radi@tu.edu.iq dhefaf.radi</li> </ul> </li>
<ul> <li>3. Semester / Year:</li> <li>Semester</li> <li>4. Description Preparation Date:</li> <li>14/ 03/ 2025</li> <li>5. Available Attendance Forms: <ul> <li>In person only</li> </ul> </li> <li>6. Number of Credit Hours (Total) / Number of Units (Total)</li> <li>30 hours per semester</li> </ul> <li>7. Course administrator's name (mention all, if more than one name) <ul> <li>Name:Ahmed Ali Essa + Estabraq Mahmood Mahdi</li> <li>Email: e.m.mahdee@tu.edu.iq</li> <li>+dhefaf.radi@tu.edu.iq dhefaf.radi</li> </ul> </li>
Semester         4. Description Preparation Date:         14/ 03/ 2025         5. Available Attendance Forms:         In person only         6. Number of Credit Hours (Total) / Number of Units (Total)         30 hours per semester         7. Course administrator's name (mention all, if more than one name)         Name:Ahmed Ali Essa + Estabraq Mahmood Mahdi         Email: e.m.mahdee@tu.edu.iq         +dhefaf.radi@tu.edu.iq dhefaf.radi
<ul> <li>4. Description Preparation Date:</li> <li>14/ 03/ 2025</li> <li>5. Available Attendance Forms: <ul> <li>In person only</li> </ul> </li> <li>6. Number of Credit Hours (Total) / Number of Units (Total)</li> <li>30 hours per semester</li> </ul> <li>7. Course administrator's name (mention all, if more than one name) <ul> <li>Name:Ahmed Ali Essa + Estabraq Mahmood Mahdi</li> <li>Email: e.m.mahdee@tu.edu.iq</li> <li>+dhefaf.radi@tu.edu.iq dhefaf.radi</li> </ul> </li>
<ul> <li>14/ 03/ 2025</li> <li>5. Available Attendance Forms: <ul> <li>In person only</li> </ul> </li> <li>6. Number of Credit Hours (Total) / Number of Units (Total)</li> <li>30 hours per semester</li> </ul> <li>7. Course administrator's name (mention all, if more than one name) <ul> <li>Name:Ahmed Ali Essa + Estabraq Mahmood Mahdi</li> <li>Email: e.m.mahdee@tu.edu.iq</li> <li>+dhefaf.radi@tu.edu.iq dhefaf.radi</li> </ul> </li>
<ul> <li>5. Available Attendance Forms: In person only</li> <li>6. Number of Credit Hours (Total) / Number of Units (Total) 30 hours per semester</li> <li>7. Course administrator's name (mention all, if more than one name) Name:Ahmed Ali Essa + Estabraq Mahmood Mahdi Email: <u>e.m.mahdee@tu.edu.iq</u> +dhefaf.radi@tu.edu.iq dhefaf.radi</li> </ul>
In person only 6. Number of Credit Hours (Total) / Number of Units (Total) 30 hours per semester 7. Course administrator's name (mention all, if more than one name) Name:Ahmed Ali Essa + Estabraq Mahmood Mahdi Email: e.m.mahdee@tu.edu.iq +dhefaf.radi@tu.edu.iq dhefaf.radi
<ul> <li>6. Number of Credit Hours (Total) / Number of Units (Total) 30 hours per semester</li> <li>7. Course administrator's name (mention all, if more than one name) Name:Ahmed Ali Essa + Estabraq Mahmood Mahdi Email: <u>e.m.mahdee@tu.edu.iq</u> +dhefaf.radi@tu.edu.iq dhefaf.radi</li> </ul>
30 hours per semester 7. Course administrator's name (mention all, if more than one name) Name:Ahmed Ali Essa + Estabraq Mahmood Mahdi Email: <u>e.m.mahdee@tu.edu.iq</u> <u>+dhefaf.radi@tu.edu.iq</u> dhefaf.radi
7. Course administrator's name (mention all, if more than one name) Name:Ahmed Ali Essa + Estabraq Mahmood Mahdi Email: <u>e.m.mahdee@tu.edu.iq</u> +dhefaf.radi@tu.edu.iq dhefaf.radi
7. Course administrator's name (mention all, if more than one name) Name:Ahmed Ali Essa + Estabraq Mahmood Mahdi Email: <u>e.m.mahdee@tu.edu.iq</u> <u>+dhefaf.radi@tu.edu.iq</u> dhefaf.radi
Name:Ahmed Ali Essa + Estabraq Mahmood Mahdi Email: <u>e.m.mahdee@tu.edu.iq</u> <u>+dhefaf.radi@tu.edu.iq</u> dhefaf.radi
Email: <u>e.m.mahdee@tu.edu.iq</u> <u>+dhefaf.radi@tu.edu.iq</u> dhefaf.radi
<u>+dhefaf.radi@tu.edu.iq</u> dhefaf.radi
8. Course Objectives
At the end of the year, the student will •
familiar with the following:
Introducing the student to the general a
basic material in medical entomology
The importance of identifying the inse
families and orders that contain medici
insects
Identify the importance of medical inse
and their role in transmitting pathogens
Viewing preserved insect specimens
students to identify the insect species the
transmit pathogens
0 Teaching and Learning Strategies
5. Teaching and Learning Sualegies
1 Educational strategy collaborative concent planning
2- Brainstorming education strategy
2- Dianistorining cultation strategy. 3- Education Strategy Notes Series
J Education Strategy Notes Series
10. Course Structure

Week	Hours	Required Learning	Unit o name	r subject	Learning method	Evaluation method
1 2 3 4 5 6 7 8 9 10 11 12 13 14	2	Outcomes 1- Providing students with analysis skills. 2- Informing students about the most important mode sources in the field of entomology		Medical insects a arachnids	1-Learn the ability to understand and assimila 2- Learn the ability to remember 3- Learn t ability connect a deduce	Weekly, monthly, dai written a end-of- semester exams.
The distribution is as follows: 25 marks for monthly and daily exams for the semester. 50 marks for final exams						
12.Learning and Teaching Resources Required textbooks (curricular books, if any)				Medical insects and arachni Written by: Salem Jamil Jarjis Inse _ Structure and Function - R. L. Gapman		
Main references (sources) Recommended books and references (scientific journals, reports)				The Physiology of Insects - Writ by: Thabet Al-Darkzali https://www.google scholar		
Electronic References, Websites				https://www.researchgate.net/		



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
### **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 3/5/2024 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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: .....Tikrit university ..... Faculty/Institute: ......College of science ...... Scientific Department: ......Biology ...... Academic or Professional Program Name:... Bachelor of Biology... Final Certificate Name: ..... Bachelor of Biology.... Academic System: ......Semesters ...... Description Preparation Date: 5/10/2024 File Completion Date: 2025/02/14

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

#### 1. Program Vision

Creating a distinguished scientific base for basic sciences that meets the requirements of society and industrial institutions and fills their needs, so that the college becomes unique with a distinguished scientific personality to achieve academic standards and reach Arab and international accreditation during the next five years.

#### 2. Program Mission

Providing an advanced educational environment and developing a nucleus for scientific research capable of providing society with scientific competencies and trained specialized personnel through the introduction of the latest scientific technologies.

#### 3. Program Objectives

1- Creating awareness and belief among the graduate in the civilizational mission of our nation and its pioneering and historical role in the emergence of human scientific civilization and its scientific development.

2- Preparing the specialized graduate who is familiar with the theoretical foundations of basic sciences and their field applications.

3- Providing the graduate with the scientific expertise required by the future field of work and informing him of the latest technical developments.

4- Creating a qualified cadre to engage in the field of university education in the future and capable of advancing the educational process in the various fields of science.

5- Qualifying scientific researchers who have the correct foundations for scientific research and development to be able to support the scientific and technological research movement in the country.

6- Preparing graduates capable of absorbing and dealing with advanced modern technologies and contributing to their future development.

7- Qualifying distinguished graduates who are able to engage in postgraduate studies to contribute effectively to science to solve complex scientific and technical dilemmas to develop other scientific and technical fields.

8- Preparing scientific cadres that deal rationally with science in order to serve humanity and the environment and have an effective role in global scientific activity through their contribution to international scientific conferences.

9- Paying attention to forming the basic base for specialized postgraduate studies in the relevant departments and encouraging them to do so in order to keep pace with development. 10- Upgrading the level of technical and administrative staff to support the educational process and create new capabilities commensurate with quality requirements.

11- Diversifying sources of educational culture and linking the student's scientific concepts to the problems of the surrounding environment.

#### 4. Program Accreditation

Does the program have program accreditation? And from which agency? 12- Achieving educational goals and outcomes that meet distinguished academic standards.

13- Developing and developing the capabilities of faculty members.

14- Providing scientific services and consultations to various sectors of the state and private companies.

#### 5. Other external influences

no

6. Program Structure							
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*			
Institution Requirements	8	90		Essential			
College Requirements	Yes						
Department Requirements	Yes						
Summer Training	Yes						
Other							

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

7. Program Description							
Year/Level	Course Code	Course Name	(	Credit Hours			
4		Medical mycology	theoretical	practical			

8. Expected learning outcomes of the program Knowledge

Learning Outcomes 1	<ul> <li>A1- To create an appropriate environment that promotes learning and growth and imparts the ability to work with multidisciplinary groups in professional, health and research organizations</li> <li>A2- To expand and deepen their abilities in analytical and experimental research methods, data analysis, and drawing relevant conclusions for scientific writing and presentation.</li> <li>A3- Introducing the student to the basic principles related to the science of pathological analysis and everything related to it.</li> </ul>
Skills	
Learning Outcomes 2	B1 - Learn the ability to understand and comprehend
	B2 - Learn the ability to remember
	B3 - Learn the ability to relate and deduce
Learning Outcomes 3	Learning Outcomes Statement 3
Ethics	
Learning Outcomes 4	1-Powerpoint
-	2-PDF
	3- Word
	4- Educational videos

#### 9. Teaching and Learning Strategies

At the end of the year, the student will be familiar with the following:

1- Introducing the student to the basic principles related to Medical mycology analyses

2- The teaching of this course aims to cover topics in theoretical foundations that include the process of mechanisms for the occurrence of Medical mycology conditions, the disorders that occur, and the diseases resulting from these disorders.

3 - The student gets to know the natural forms and pathological conditions, as well as the student's knowledge of normal and abnormal values (Medical mycology conditions), as well as teaching the student the Medical mycology conditions that lead to an increase or decrease in these values.

4- Giving the student an expanded and modern idea about the science of pathological analyzes and the normal and abnormal ranges, in addition to the changes that occur when infected with various diseases.

#### **10. Evaluation methods**

Weekly, monthly, daily exams and the end-of-semester exam.

## 11.Faculty

**Faculty Members** 

Academic Rank	Specializa	ation	Special Requirements/Skills (if applicable)		Number of the	e teaching staff
	General	Special			Staff	Lecturer
Lecturer	Biology	Medical mycology			/	

Professional Development	
Mentoring new faculty members	
Orienting new faculty members.	
Professional development of faculty members	
Professional development for faculty members.	

12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program

- Medical Mycology Current Trends and Future Prospects 1st Edition Edited By Mehdi Razzaghi-Abyaneh, Masoomeh Shams-Ghahfarokhi, Mahendra Rai Copyright 2016 Mycology Basics Series: Medical Mycology By: Dr. Fayadh Muhammed Sharif.
- Mycology Basics Series: Medical Mycology By: Dr. Fayadh Muhammed Sharif.
- The most important medicinal fungi and their diseases methods of isolation, diagnosis and treatment.
- Dr. Zidan Khalif Omran Al-Mamouri
- Dr. Karima Amin Hussein Al-Khafaji

14.Program Development Plan Updating curricula according to recent scientific discoveries.

	Program Skills Outline														
					Required program Learning outcomes										
Year/Level	Course Code	Course Name	Basic or optional	Kno	wledge			Skills	5			Ethics			
				A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	C4
2024/2025		Medical mycology	Basic		*					*			*		

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

#### **Course Description Form**

1. Course Name:

Medical mycology

#### 2. Course Code:

#### 3. Semester / Year:

#### Semester

4. Description Preparation Date:

14/02/2025

5. Available Attendance Forms:

In person only

#### 6. Number of Credit Hours (Total) / Number of Units (Total)

75 hours per semester

#### 7. Course administrator's name (mention all, if more than one name) Name: HUMAM SAADI HUSSEIN Email: humam.s.hussein@tu.edu.ig

8. Course Objectives	
At the end of the year, the student will be familiar with	ih •
the following:	•
1- Introducing the student to the basic principles rela	te •
to Medical mycology analyses	
2 The teaching of this course aims to cover topics in	1
theoretical foundations that include the process of	
mechanisms for the occurrence of Medical mycology	
conditions, the disorders that occur, and the diseases	
resulting from these disorders.	
<b>3</b> - The student gets to know the natural forms and	
pathological conditions, as well as the student's	
knowledge of normal and abnormal values ( Medical	
mycology conditions), as well as teaching the student	t
Medical mycology conditions that lead to an increase	
decrease in these values.	
4- Giving the student an expanded and modern idea a	b
the science of Medical mycology analyzes and the no	n
and abnormal ranges, in addition to the changes that o	lC
when infected with various diseases.	
9. Teaching and Learning Strategies	
Strategy	
1- Educational strate	gy collaborative concept planning

2- Brainstorming education strategy.

3- Education Strategy Notes Series

Week	Hours	Required	Unit or subject	Learning	Evaluation
VV EEK	nouis	Learning	name	method	method
		Outcomes	name	memou	methou
1	2		Medical mycology	1-Learn the	Weekly
2	2	1- Providing		ability to	monthly
2		students with		understand	daily wri
3		analyzic chille		and assimila	ually, will
4		allalysis skills.		and assimila	and end
5		2- Informing		2- Learn the	semester
6		students about		ability to	exams.
7		the most		remember	
8		important		3- Learn t	
9		modern source		ability	
10		in the field of		connect a	
11		pathological		deduce	
10		analyses.			
12					
13					
14					
15					
11 Cours		tion			
11.Cours	se Evaluat	tion	for monthly and dail	y exame for the	somostor 5
11.Cours	se Evaluat oution is as	tion follows: 25 marks	for monthly and dail	y exams for the	e semester. 5
11.Cours The distrib narks for f 12.Learn	se Evaluat oution is as inal exams ning and T	tion follows: 25 marks ceaching Resource	for monthly and dail	y exams for the	e semester. 5
11.Cours The distrib narks for f 12.Learn Required te	se Evaluat oution is as inal exams ning and T xtbooks (cu	tion follows: 25 marks Ceaching Resource	for monthly and dail es y)	y exams for the	e semester. 5
11.Cours The distrib narks for f 12.Learn Required te	se Evaluat oution is as final exams ning and T xtbooks (cu	tion follows: 25 marks ceaching Resource arricular books, if an	for monthly and dail es y)	y exams for the Medical	e semester. 5 <b>Mycolog</b>
11.Cours The distrib narks for f 12.Learn Required te	se Evaluat oution is as final exams ning and T xtbooks (cu	tion follows: 25 marks ceaching Resource arricular books, if any	for monthly and dail es y) -	y exams for the Medical	e semester. 5 Mycolog
11.Cours The distrib narks for f 12.Learn Required te	se Evaluat oution is as inal exams ning and T xtbooks (cu	tion follows: 25 marks ceaching Resource arricular books, if any	for monthly and dail es y) - Curr	y exams for the Medical ent Tren	Mycolog
11.Cours The distrib narks for f 12.Learn Required te	se Evaluat oution is as final exams ning and T xtbooks (cu	tion follows: 25 marks ceaching Resource arricular books, if any	for monthly and dail es <sup>y)</sup> - Curr Futu	y exams for the Medical rent Tren re Prosp	e semester. 5 Mycolog ids and ects 1s
11.Cours The distrib narks for f 12.Learn Required te	se Evaluat oution is as inal exams ning and T xtbooks (cu	tion follows: 25 marks ceaching Resource arricular books, if any	for monthly and dail es y) - Curr Futu Editi	y exams for the Medical ent Tren re Prosp on Edited	Mycolog ds and ects 1s By Meho
11.Cours The distrib narks for f 12.Learn Required te	se Evaluat oution is as final exams ning and T xtbooks (cu	tion follows: 25 marks Ceaching Resource arricular books, if any	for monthly and dail es y) - Curr Futu Editi Razz	y exams for the Medical rent Tren re Prospe on Edited	e semester. 5 Mycolog ods and ects 1s By Meho neh.
11.Cours The distrib narks for f 12.Learn Required te	se Evaluat oution is as inal exams ning and T xtbooks (cu	tion follows: 25 marks ceaching Resource arricular books, if any	for monthly and dail es y) - Curr Futu Editi Razz	y exams for the Medical ent Tren re Prosp on Edited aghi-Abyar	Mycolog ds an ects 1s By Meho neh,
11.Cours The distrib narks for f 12.Learn Required te	se Evaluat oution is as final exams ning and T xtbooks (cu	tion follows: 25 marks Ceaching Resource arricular books, if any	for monthly and dail es y) - Curr Futu Editi Razz Maso	y exams for the Medical rent Tren re Prosp on Edited zaghi-Abyar oomeh	e semester. 5 Mycolog ods and ects 1s By Meho neh, Shams
11.Cours The distrib narks for f 12.Learn Required te	se Evaluat oution is as inal exams ning and T xtbooks (cu	tion follows: 25 marks ceaching Resource arricular books, if any	for monthly and dail es y) - Curr Futu Editi Razz Mas Gha	y exams for the Medical ent Tren re Prosp on Edited aghi-Abyar oomeh hfarokhi,	e semester. 5 Mycolog ds an ects 1s By Meho neh, Shams Mahendr
11.Cours The distrib narks for f 12.Learn Required te	se Evaluat oution is as final exams ning and T xtbooks (cu	tion follows: 25 marks reaching Resource arricular books, if any	for monthly and dail es y) - Curr Futu Editi Razz Mas Ghai Rai	y exams for the Medical rent Tren re Prosp on Edited zaghi-Abyar oomeh hfarokhi, Copvrial	e semester. 5 Mycolog ods an ects 1s By Meho neh, Shams Mahendr nt 201
11.Cours The distrib narks for f 12.Learn Required te	se Evaluat oution is as inal exams ning and T xtbooks (cu	tion follows: 25 marks ceaching Resource arricular books, if any	for monthly and dail es y) - Curr Futu Editi Razz Mas Ghai Rai	y exams for the Medical ent Tren re Prosp on Edited aghi-Abyar oomeh hfarokhi, Copyrigi	e semester. 5 Mycolog ds an ects 1s By Meho neh, Shams Mahendr nt 201
11.Cours The distrib narks for f 12.Learn Required te	se Evaluat oution is as final exams ning and T xtbooks (cu	tion follows: 25 marks reaching Resource arricular books, if any	for monthly and dail es y) - Curr Futu Editi Razz Mas Gha Rai Myco	y exams for the Medical rent Tren re Prospetion Edited caghi-Abyar oomeh hfarokhi, Copyrigh ology Basic	e semester. 5 Mycolog ods and ects 1s By Meho neh, Shams Mahendr nt 201 cs Series
11.Cours The distrib narks for f 12.Learn Required te	se Evaluat oution is as inal exams ning and T xtbooks (cu	tion follows: 25 marks ceaching Resource arricular books, if any	for monthly and dail es y) - Curr Futu Editi Razz Mase Ghai Rai Myco Medi	y exams for the Medical ent Tren re Prosp on Edited aghi-Abyar oomeh hfarokhi, Copyrigi ology Basic cal Mycolog	e semester. 5 Mycolog ds an ects 1s By Meho neh, Shams Mahendr nt 201 es Series y By: Dr
11.Cours The distrib narks for f 12.Learr Required te	se Evaluat oution is as <u>final exams</u> <u>fing and T</u> xtbooks (cu	tion follows: 25 marks reaching Resource arricular books, if any	for monthly and dail es y) - Curr Futu Editi Razz Mas Gha Rai Myco Medi Faya	y exams for the Medical rent Tren re Prospe ion Edited zaghi-Abyar oomeh hfarokhi, Copyrigh ology Basic cal Mycolog dh Muhamme	e semester. 5 Mycolog ods and ects 1s By Meho neh, Shams Mahendr nt 201 cs Series y By: Dr ed Sharif.
11.Cours The distrib narks for f 12.Learr Required te Main refere	se Evaluat oution is as inal exams ning and T xtbooks (cu	tion follows: 25 marks ceaching Resource arricular books, if any	for monthly and dail es y) - Curr Futu Editi Razz Mase Ghai Rai Myco Medi Fayae	y exams for the Medical rent Tren re Prospe ion Edited zaghi-Abyar oomeh hfarokhi, Copyrigh ology Basic cal Mycolog dh Muhamme	e semester. 5 Mycolog ds and ects 1s By Meho neh, Shams Mahendr nt 201 cs Series y By: Dr ed Sharif.
11.Cours The distrib narks for f 12.Learr Required te Main refere	se Evaluat oution is as <u>final exams</u> <u>fing and T</u> xtbooks (cu	tion follows: 25 marks ceaching Resource arricular books, if any	for monthly and dail es y) - Curr Futu Editi Razz Mas Ghal Rai Myco Medi Faya	y exams for the Medical rent Tren re Prospe ion Edited caghi-Abyar oomeh hfarokhi, Copyrigh ology Basic cal Mycolog dh Muhamme	e semester. 5 Mycolog ods and ects 1s By Meho neh, Shams Mahendr nt 201 cs Series y By: Dr ed Sharif.

Recommended books and references (scientific journals, reports)	<ul> <li>The most important medicinal fungi and their diseases - methods of isolation, diagnosis and treatment.</li> <li>Dr. Zidan Khalif Omran Al- Mamouri</li> <li>Dr. Karima Amin Hussein Al- Khafaji</li> </ul>
Electronic References, Websites	Electronic references, Internet sites

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

## **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 3/5/2024 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:**

<u>Academic Program Description</u>: 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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.

<u>Curriculum Structure:</u> 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 extracurricular activities to achieve the learning outcomes of the program.

#### **Academic Program Description Form**

University Name: .....Tikrit university ..... Faculty/Institute: ......College of science ...... Scientific Department: ......Biology ...... Academic or Professional Program Name:... Bachelor of Biology... Final Certificate Name: ..... Bachelor of Biology.... Academic System: ......Semesters ...... Description Preparation Date: 5/10/2024 File Completion Date: 2025/02/14

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

#### 1. Program Vision

Creating a distinguished scientific base for basic sciences that meets the requirements of society and industrial institutions and fills their needs, so that the college becomes unique with a distinguished scientific personality to achieve academic standards and reach Arab and international accreditation during the next five years.

#### 2. Program Mission

Providing an advanced educational environment and developing a nucleus for scientific research capable of providing society with scientific competencies and trained specialized personnel through the introduction of the latest scientific technologies.

#### 3. Program Objectives

1- Creating awareness and belief among the graduate in the civilizational mission of our nation and its pioneering and historical role in the emergence of human scientific civilization and its scientific development.

2- Preparing the specialized graduate who is familiar with the theoretical foundations of basic sciences and their field applications.

3- Providing the graduate with the scientific expertise required by the future field of work and informing him of the latest technical developments.

4- Creating a qualified cadre to engage in the field of university education in the future and capable of advancing the educational process in the various fields of science.

5- Qualifying scientific researchers who have the correct foundations for scientific research and development to be able to support the scientific and technological research movement in the country.

6- Preparing graduates capable of absorbing and dealing with advanced modern technologies and contributing to their future development.

7- Qualifying distinguished graduates who are able to engage in postgraduate studies to contribute effectively to science to solve complex scientific and technical dilemmas to develop other scientific and technical fields.

8- Preparing scientific cadres that deal rationally with science in order to serve humanity and the environment and have an effective role in global scientific activity through their contribution to international scientific conferences.

9- Paying attention to forming the basic base for specialized postgraduate studies in the relevant departments and encouraging them to do so in order to keep pace with development.

10- Upgrading the level of technical and administrative staff to support the educational process and create new capabilities commensurate with quality

requirements.

11- Diversifying sources of educational culture and linking the student's scientific concepts to the problems of the surrounding environment.

#### 4. Program Accreditation

Does the program have program accreditation? And from which agency?

12- Achieving educational goals and outcomes that meet distinguished academic standards.

13- Developing and developing the capabilities of faculty members.

14- Providing scientific services and consultations to various sectors of the state and private companies.

5. Other external influences	S
------------------------------	---

no

6. Program Structure							
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*			
Institution Requirements	8	90		Essential			
College Requirements	Yes						
Department Requirements	Yes						
Summer Training	Yes						
Other							

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

7. Program Description							
Year/Level	<b>Course Code</b>	Course Name		Credit Hours			
4		Microbial physiology	theoretical	practical			

8. Expected learning outcomes of the program					
Knowledge					
Learning Outcomes 1	<ol> <li>Establishing a strong and solid foundation for microbiology physiology.</li> <li>The ability to read relevant research and scientific literature.</li> </ol>				

5

	<ul> <li>3 - The student's knowledge of the most important technologies used with the principle and basis of the work of each technique of microbiology physiology.</li> <li>4 - Knowledge of disciplines related to the science of microbiology, especially since it is a multidisciplinary science</li> <li>5-Understanding of cellular structure, of bacteria and contents, functions of bacterial components.</li> </ul>
Skills	
Learning Outcomes 2	B1 - Learn the ability to understand and comprehend
	B2 - Learn the ability to remember
	B3 - Learn the ability to relate and deduce
Learning Outcomes 3	Learning Outcomes Statement 3
Ethics	
Learning Outcomes 4	1-Powerpoint
-	2- PDF
	3- Word
	4- Educational videos

#### 9. Teaching and Learning Strategies

- 1. Understand students to the basics of microbiology physiology.
- 2. Knowledge of disciplines related to microbiology, especially since it is a multidisciplinary science.
- 3. The student's knowledge of the most important applications of microbiology physiology in biology.
- 4. Familiarity with the basic laboratory techniques of microbiology physiology.
- 5. The student's knowledge of the future of microbiology physiology.
- 6. The student's knowledge of the most important technologies used with the principle and basis of the work of each technique of microbiology physiology and Analyze microbial techniques: Familiarize yourself with laboratory techniques commonly used in microbial research.
- 7. Develop critical thinking and problem-solving skills: Apply physiology of bacterial structure principles to analyze and solve complex problems, evaluate scientific literature, and think critically about microbial concepts and experimental design.

#### **10. Evaluation methods**

Weekly, monthly, daily exams and the end-of-semester exam.

**11.Faculty** 

Faculty Members							
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff		
	General	Special			Staff	Lecturer	
Assistant Prof .Reyam faris saleh	Biology	Medical microbiology			/		

Professional Development
Mentoring new faculty members
Orienting new faculty members.
Professional development of faculty members
Professional development for faculty members.

#### **12.Acceptance Criterion**

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

#### 13. The most important sources of information about the program

- Joanne Willey, Linda Sherwood, Christopher J. Woolverton.(2011). Prescott's Microbiology 8th Edition . McGraw Hill.

-

- *Essentials of* MEDICAL MICROBIOLOGY, Anand janagond, (2016). Jaypee Brothers Medical Publishers

14.Program Development Plan

Updating curricula according to recent scientific discoveries.

	Program Skills Outline														
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knov	wledge			Skill	5			Ethics			
				A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	C4
2024/2025		Microbial physiology	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

## **Course Description Form**

1. Course Name:
Pathological analysis
2. Course Code:
3. Semester / Year:
4/8
4. Description Preparation Date:
14/02/2025
5. Available Attendance Forms:
In person only
6. Number of Credit Hours (Total) / Number of Units (Total)
75 hours per semester
7. Course administrator's name (mention all, if more than one name)
Name: Reyam.F.Saleh
Email: riyamf@tu.edu.iq
8. Course Objectives
8. Understand students to the basics •
microbiology physiology.
9. Knowledge of disciplines related
microbiology, especially since it is
multidisciplinary science.
10. The student's knowledge
the most important applications
microbiology physiology in biology
11. Familiarity with the ba
laboratory techniques
microbiology physiology.
12. The student's knowledge of t
12 The student's knowledge of t
15. The student's knowledge of t
with the principle and basis of t
with the principle and basis of t work of each technique
microbiology nhysiology and Analy
microbial techniques. Familiar
vourself with laboratory techniqu
commonly used in microb
commonly used in interog

Develop critic lem-solving iology of bac ciples to anal plex problems, e ature, and think obial concepts a gn. <u>hing and Learnin</u> <u>1- Educa 2- Brains</u> 3- Educa	cal thinking a skills: App cterial structu lyze and sole evaluate scientics critically about and experimen g Strategies storming education Strategy No	collaborative control to the strategy.	oncept pla	nning.
Structure				
Irs Required Learning Outcomes	Unit or su name	ıbject Lear meth	ning ] 10d 1	Evaluation method
1- Providi students v analysis s 2- Inform students a the most important sources in field of m physiolog	ing ph with kills. ing about t mode n the icrobia y	icrobial 1-Le nysiology abil und and 2- L abil rem 3- abil con ded	earn the ity to erstand assimila earn the ity to ember Learn t ity nect a uce	Weekly, monthly, dai written a end-of- semester exams.
Evaluation ition is as follows: I nal exams	25 marks for mon	thly and daily exa	ams for the	semester. 50
	Develop critic olem-solving siology of bac ciples to anal plex problems, e ature, and think obial concepts a gn. thing and Learnin 1- Educa 2- Brains 3- Educa e Structure urs Required Learning Outcomes 1- Providi students a analysis s 2- Inform students a the most importan sources in field of m physiolog	Develop critical thinking a plem-solving skills: App siology of bacterial structu ciples to analyze and so plex problems, evaluate scienti ature, and think critically abor- obial concepts and experimen gn. thing and Learning Strategies 1- Educational strategy, 2- Brainstorming educat 3- Education Strategy No e Structure urs Required Unit or su Learning Outcomes 1- Providing ph students with analysis skills. 2- Informing students about the most important mode sources in the field of microbia physiology the students interfield of microbia physiology the most important mode sources in the field of microbia physiology the students for mon mal exams	Develop critical thinking a olem-solving skills: App siology of bacterial structu ciples to analyze and so plex problems, evaluate scienti ature, and think critically abo robial concepts and experimen gn. Thing and Learning Strategies 1- Educational strategy, collaborative c 2- Brainstorming education strategy. 3- Education Strategy Notes Series e Structure urs Required Unit or subject Learning Outcomes microbial 1-Learning 1- Providing physiology abil students with analysis skills. 2- Informing 2- L students about the most rem important mode 3- sources in the field of microbia field of microbia physiology ded bill field of microbia field of micro	Develop critical thinking a plem-solving skills: Application structure       Application structure         ciples to analyze and sopplex problems, evaluate scientiature, and think critically aborobial concepts and experimen gn.       Application structure         thing and Learning Strategies       1- Educational strategy, collaborative concept plate 2- Brainstorming education strategy.         a. Education Strategy Notes Series       3- Education Strategy Notes Series         e Structure       microbial 1-Learning method 1-1-Learn the ability to 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-

Main references (sources)	Joanne Willey, Linda Sherwo Christopher J. Woolverton.(201 Prescott's Microbiology 8th Editio McGraw Hill.
Recommended books and references (scientific journals, reports)	MEDICAL <i>Essentials of -</i> MICROBIOLOGY,Anand janagond,(2016). Jaypee Brothers Medical Publishers
Electronic References, Websites	https://www.researchgate.net/

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

### **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 3/5/2024 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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: .... Tikrit...... Faculty/Institute: .....Science..... Scientific Department: .... Biology...... Academic or Professional Program Name: ...Bachelor in biology...... Final Certificate Name: .... Bachelor in Microbiology..... Academic System: ....Semester..... Description Preparation Date: 13/3/2025 File Completion Date: 13/3/2025

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

**Approval of the Dean** 

1. Program Vision

Program vision is written here as stated in the university's catalogue and website.

#### 2. Program Mission

Program mission is written here as stated in the university's catalogue and website.

#### 3. Program Objectives

General statements describing what the program or institution intends to achieve.

#### 4. Program Accreditation

Does the program have program accreditation? And from which agency?

#### 5. Other external influences

Is there a sponsor for the program?

6. Program Structure						
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*		
Institution		75				
Requirements						
College Requirements						
Department						
Requirements						
Summer Training	yes					
Other						

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

7. Program Description						
Year/Level	Course Code	Course Name		Credit Hours		
2024-2-24, third		<b>Bacterial toxins</b>	theoretical	practical		
			2	3		

8. Expected learning outcomes of the program					
Knowledge					
Acquaintance the student on the	Learning Outcomes Statement 1				
importance of bacterial toxins					

Skills	
Expansion the knowledge in	Learning Outcomes Statement 2
bacterial toxins	
Learning Outcomes 3	Learning Outcomes Statement 3
Ethics	
Development of student ideas	Learning Outcomes Statement 4
Learning Outcomes 5	Learning Outcomes Statement 5

#### 9. Teaching and Learning Strategies

Explain the types of bacterial toxins

#### **10. Evaluation methods**

Daily, weekly, monthly, and final semester examinations

11.Faculty							
<b>Faculty Members</b>							
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff		
	General	Special			Staff	Lecturer	
Assistance prof.	Biology	Microbiology			staff		

#### **Professional Development**

#### Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

#### Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

#### 12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

#### 13. The most important sources of information about the program

## Willy, M. J.; Sherwood, M.L.; Woolverton, J. C. (2019). Prescott's MICROBIOLOGY. Ninth Edition. McGraw Hill.

14.Program Development Plan

Study the importance of bacterial toxin on the health society

Program Skills Outline															
					Required program Learning outcomes										
Year/Level Course Course Ba Code Name op		Basic or Kno optional		Knowledge		Skills			Ethics						
				A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	C4
2024- 2025/third		Bacterial toxins	Basic												
															ļ
															ļ

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

#### **Course Description Form**

1. Course Name:

Bacterial toxin

2. Course Code:

3. Semester / Year:

semester

4. Description Preparation Date:

13/3/2025

5. Available Attendance Forms:

Attendance only

6. Number of Credit Hours (Total) / Number of Units (Total)

75 hr. in semester, 5 hr. in week

7. Course administrator's name (mention all, if more than one name) Name: Assit.prof. Waqas Sadi Mahmood Email: w-s.mahmood@tu.edu.iq

....

••••

8. Course Objectives 1-aquestion the student the ability to diagnosis of bacte toxins

•
•

9. Teaching and Learning Strategies

Strategy

10. Course Structure									
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluatio n method				
1	5hr		Bact	Exj	Dail				
2	5hr	1-aquestion the student th	ial	ain	weel				
3	5hr	ability to diagnosis of bacterial toxins	toxii	the	,				
4	5hr			typ	mon				
5	5hr			of	у, а				
6	5hr			bao	final				
7	5hr			ria	seme				
8	5hr			tox	er				
9	5hr			S	exar				
10	5hr				natio				

11	5hr					
12	5hr					
13	5hr					
14	5hr					
15	5hr					
11.Cours	e Evaluation					
35-degree t	heoretical exam. And 15-de	gree practical	exam., 50-deg	ree final exa	am.	
12.Learn	ing and Teaching Resour	ces				
Required tex	xtbooks (curricular books, if a	uny)				
Main references (sources)			Willy, M. J.; Sherwood, M.L.; Woolverton, J. C. (2019). Prescott's MICROBIOLOGY. Ninth Edition. McGraw Hill.			
Recommend journals, rep	led books and reference ports)	es (scientific	Microbiolog Encycloped 2019. The desk of Microbiolog	gy (Tortor ia of Micr encyclope gy. 2017.	a). 20120. obiology. edia of	
Electronic R	References, Websites		Virtua	al library		

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

### **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 3/5/2024 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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: .... Tikrit...... Faculty/Institute: .....Science..... Scientific Department: .... Biology...... Academic or Professional Program Name: ...Bachelor in biology...... Final Certificate Name: .... Bachelor in Microbiology..... Academic System: ....Semester..... Description Preparation Date: 13/3/2025 File Completion Date: 13/3/2025

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

**Approval of the Dean** 

1. Program Vision

Program vision is written here as stated in the university's catalogue and website.

### 2. Program Mission

Program mission is written here as stated in the university's catalogue and website.

### 3. Program Objectives

General statements describing what the program or institution intends to achieve.

### 4. Program Accreditation

Does the program have program accreditation? And from which agency?

### 5. Other external influences

Is there a sponsor for the program?

6. Program Structure				
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution		75		
Requirements				
College Requirements				
Department				
Requirements				
Summer Training	yes			
Other				

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

7. Program Description					
Year/Level	Course Code	Course Name		Credit Hours	
2024-2-24, forth		Virology	theoretical	practical	
			2	3	

8. Expected learning outcomes of the program			
Knowledge			
Acquaintance the student on the	Learning Outcomes Statement 1		
importance of viruses			

Skills				
Expansion the knowledge in viruses	Learning Outcomes Statement 2			
Learning Outcomes 3   Learning Outcomes Statement 3				
Ethics				
Development of student ideas	Learning Outcomes Statement 4			
Learning Outcomes 5	Learning Outcomes Statement 5			

#### 9. Teaching and Learning Strategies

Explain the types of viruses

### **10. Evaluation methods**

Daily, weekly, monthly, and final semester examinations

11.Faculty							
<b>Faculty Members</b>							
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff		
	General	Special			Staff	Lecturer	
Assistance prof.	Biology	Microbiology			staff		

### **Professional Development**

#### Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

### Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

### 12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

### 13. The most important sources of information about the program

## Willy, M. J.; Sherwood, M.L.; Woolverton, J. C. (2019). Prescott's MICROBIOLOGY. Ninth Edition. McGraw Hill.

14.Program Development Plan Study the importance of viruses on the health society

	Program Skills Outline														
	Required program Learning outcomes														
Year/Level Course Code	Course Basic or Name optional	Knov	wledge			Skills	5			Ethics					
				A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	<b>C4</b>
2024-		Virology	Basic												
2025/third															

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

### **Course Description Form**

1. Course Name:

Virology

2. Course Code:

3. Semester / Year:

semester

4. Description Preparation Date:

13/3/2025

5. Available Attendance Forms:

Attendance only

6. Number of Credit Hours (Total) / Number of Units (Total)

75 hr. in semester, 5 hr. in week

7. Course administrator's name (mention all, if more than one name) Name: Assit.prof. Waqas Sadi Mahmood Email: w-s.mahmood@tu.edu.iq

 8. Course Objectives

 1-aquestion the student the ability to diagnosis of viruses

 •

•

....

••••

9. Teaching and Learning Strategies

Strategy

10. Cours	se Structure	2			
Week	Hours	Required Learning	Unit or	Learning	Evaluat
		Outcomes	subject	method	ion
			name		method
1	5hr		Vire	Explai	D
2	5hr	1-aquestion the student th	gy	the	у,
3	5hr	ability to diagnosis of viru		types	W
4	5hr			viruse	kl
5	5hr				m
6	5hr				th
7	5hr				ar
8	5hr				fiı
9	5hr				se
10	5hr				es

11 5hr	ex
12 5hr	m
13 5hr	at
14 5hr	ns
15 5hr	
11.Course Evaluation	
35-degree theoretical exam. And 15-degree practica	l exam., 50-degree final exam.
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	Willy, M. J.; Sherwood, M.L.; Woolverton, J. C. (2019). Prescott's MICROBIOLOGY. Ninth Edition. McGraw Hill.
Recommended books and references (scientific journals, reports)	Microbiology (Tortora). 20120. Encyclopedia of Microbiology. 2019.
Electronic References, Websites	Virtual library

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

### **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 3/5/2024 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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.

<u>Curriculum Structure</u>: 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: .....Tikrit university ..... Faculty/Institute: .....College of science ...... Scientific Department: .....Biology ..... Academic or Professional Program Name:... Bachelor of Biology... Final Certificate Name: ..... Bachelor of Biology.... Academic System: ......Semesters ...... Description Preparation Date: 5/10/2024 File Completion Date: 2025/03/14

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

### The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

### Approval of the Dean

#### 1. Program Vision

Creating a distinguished scientific base for basic sciences that meets the requirements of society and industrial institutions and fills their needs, so that the college becomes unique with a distinguished scientific personality to achieve academic standards and reach Arab and international accreditation during the next five years.

### 2. Program Mission

Providing an advanced educational environment and developing a nucleus for scientific research capable of providing society with scientific competencies and trained specialized personnel through the introduction of the latest scientific technologies.

### 3. Program Objectives

1- Creating awareness and belief among the graduate in the civilizational mission of our nation and its pioneering and historical role in the emergence of human scientific civilization and its scientific development.

2- Preparing the specialized graduate who is familiar with the theoretical foundations of basic sciences and their field applications.

3- Providing the graduate with the scientific expertise required by the future field of work and informing him of the latest technical developments.

4- Creating a qualified cadre to engage in the field of university education in the future and capable of advancing the educational process in the various fields of science.

5- Qualifying scientific researchers who have the correct foundations for scientific research and development to be able to support the scientific and technological research movement in the country.

6- Preparing graduates capable of absorbing and dealing with advanced modern technologies and contributing to their future development.

7- Qualifying distinguished graduates who are able to engage in postgraduate studies to contribute effectively to science to solve complex scientific and technical dilemmas to develop other scientific and technical fields.

8- Preparing scientific cadres that deal rationally with science in order to serve humanity and the environment and have an effective role in global scientific activity through their contribution to international scientific conferences.

9- Paying attention to forming the basic base for specialized postgraduate studies in the relevant departments and encouraging them to do so in order to keep pace with development.

10- Upgrading the level of technical and administrative staff to support the educational process and create new capabilities commensurate with quality requirements.

11- Diversifying sources of educational culture and linking the student's scientific concepts to the problems of the surrounding environment.

### 4. Program Accreditation

Does the program have program accreditation? And from which agency? 12- Achieving educational goals and outcomes that meet distinguished academic standards.

13- Developing and developing the capabilities of faculty members.

14- Providing scientific services and consultations to various sectors of the state and private companies.

### 5. Other external influences

no

6. Program Structure					
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*	
Institution Requirements	8	90		Essential	
College Requirements	Yes				
Department Requirements	Yes				
Summer Training	Yes				

Other		

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

7. Program Description					
Year/Level	Course Code	Course Name	(	Credit Hours	
4		Histology	theoretical	practical	

8. Expected learning outcomes of the program			
Knowledge			
Learning Outcomes 1	<ul> <li>A1- To create an appropriate environment that promotes learning and growth and imparts the ability to work with multidisciplinary groups in professional, health and research organizations</li> <li>A2- To expand and deepen their abilities in recognized the tissue and cells</li> <li>A3- Introducing the student to the basic principles related to the science of histology</li> </ul>		
Skills			
Learning Outcomes 2	<ul><li>B1 - Learn the ability to understand and comprehend</li><li>B2 - Learn the ability to remember</li><li>B3 - Learn the ability to relate and deduce</li></ul>		
Learning Outcomes 3	Learning Outcomes Statement 3		
Ethics			
Learning Outcomes 4	<ul> <li>1-Powerpoint</li> <li>2- PDF</li> <li>3- Word</li> <li>4- Educational videos</li> <li>5- text book</li> </ul>		

### 9. Teaching and Learning Strategies

At the end of the year, the student will be familiar with the following:

1- Introducing the student to the basic principles related to histology

2- - The teaching of this course aims to cover topics in theoretical foundations in histology

3 - The student gets to know the natural forms of tissues and cell in animals and human histology

4- Giving the student an expanded and modern idea about the science of histology

### **10. Evaluation methods**

Weekly, monthly, daily exams and the end-of-semester exam.

11.Faculty						
Faculty Members						
Academic Rank	ation	Special Requirements/Skills (if applicable)		Number of the teaching staff		
	General	Special			Staff	Lecturer
Prof.	Biology	Histology and embryology			1	

Professional Development
Mentoring new faculty members
Orienting new faculty members.
Professional development of faculty members
Professional development for faculty members.

#### 12. Acceptance Criterion

-

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

### 13. The most important sources of information about the program

- Text book of histology part 1 kuakib abdulkader almukhtar et al.
- Junqueira s basic histology text and atlas 16th

14.Program Development Plan Updating curricula according to recent scientific discoveries.

	Program Skills Outline														
				Required program Learning outcomes											
Year/Level	Course Code	Course Code	Course Name	ourse Basic or K Name optional		Knowledge			Skills			Ethics			
				A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	C4
2024/2025		Histology	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

### **Course Description Form**

1. C	lourse l	Name:				
Histol	ogy					
2. 0	Course (	Code:				
3. S	emeste	er / Year	:			
4/8						
4. Ľ	Descript	tion Pre	paration Dat	ce:		
14/03/	2025					
5. A	vailabl	e Attend	ance Forms:			
I	n perso	n only				
6. N	Jumber	of Credi	t Hours (Tota	al) / Number of Unit	ts (Total)	
7	'5 hour	s per sei	mester			
7. (	Course	adminis	strator's nam	ne (mention all, if r	nore than one	e name)
Ν	lame: N	/Iuna Sal	ah Rashid			
E	Email: n	nuna.sa	lah@tu.edu	.iq		
8. 0	Course (	Objective	es			
At the en the follow 1- Introd to Histol 2 The t theoretic types and 3 - The st 4- Giving the science	d of the y ving: ucing the ogy eaching o al founda l function tudent ge the stude ce of Hist	e student to of this count nations that n of it ts to know ent an expanded	tudent will be fa the basic prine rse aims to cove include the cell the natural for anded and mode	er topics in s and tissu ern idea ab	•••••	
9. T	Teaching	g and Lea	arning Strate	gies		
Strategy		1 2 3	- Education - Brainstorn - Education	al strategy, collabo ning education stra Strategy Notes Ser	rative concept itegy. ies	planning.
10. Co	urse Str	ructure				
Week	Hou	rs Red Lea Ou	quired arning tcomes	Unit or subject name	Learning method	Evaluation method
	1 2 2	1-	Providing	Histology	1-Learn the ability to	Weekly, monthly,
	3	stu	idents with		understand	daily, writ
	4	an	alysis skills.		and assimila	and end

	-					
5		2- Informing			2- Learn the	semester
6		students about			ability to	exams.
7		the most			remember	
8		important			3- Learn t	
9		modern source			ability	
10		in the field of			connect a	
11		Histology .			deduce	
12						
13						
14						
15						
11.0		•				
11.Cours	se Evaluat	10n	6	.11 1 1 1	<u> </u>	. 50
The distrib	inclovers	follows: 25 marks	s for m	onthly and dail	y exams for the	semester. 50
12  Learr	ning and T	Peaching Resource	Pes			
Required te	xtbooks (cu	urricular books, if ar	1V)	Text b	ook of Histold	) GV
Main refere	nces (sourc	es)		-	Iunqueira s	basic histolo
				text ar	d atlas 16th	busic instore
Recommen	ded books	and references (sci	entific	Curren	t biology jour	nal
journals, re	ports)			Currer	n biblogy jour	IIuI
Electronic I	References,	Websites				
				https://www.	researchgate.n	<u>net/</u>
				numanad		
				pumped		
				nchi		
				1001		
1						



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

### **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 3/5/2024 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:**

<u>Academic Program Description</u>: 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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.

<u>Curriculum Structure:</u> 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 extracurricular activities to achieve the learning outcomes of the program.

### Academic Program Description Form

University Name: ..... Tikrit University Faculty/Institute: ...... College of Sciences..... Scientific Department: .....Biology..... Academic or Professional Program Name: ......Bachelor of biology.... Final Certificate Name: ....... Bachelor of biology.... Academic System: ....... Semesters... Description Preparation Date: 5/10/2024 File Completion Date: 14/2/2025

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

**Approval of the Dean** 

### Program vision is written here as stated in the university's catalogue and website.

### 2. Program Mission

Creating a distinguished scientific base for basic sciences that meets the requirements of society and industrial institutions and fills their needs, so that the college becomes unique with a distinguished scientific personality to achieve academic standards and reach Arab and international accreditation during the next five years.

### 3. Program Objectives

1- Creating awareness and belief among the graduate in the civilizational mission of our nation and its pioneering and historical role in the emergence of human scientific civilization and its scientific development.

2- Preparing the specialized graduate who is familiar with the theoretical foundations of basic sciences and their field applications.

3- Providing the graduate with the scientific expertise required by the future field of work and informing him of the latest technical developments.

4- Creating a qualified cadre to engage in the field of university education in the future and capable of advancing the educational process in the various fields of science.

5- Qualifying scientific researchers who have the correct foundations for scientific research and development to be able to support the scientific and technological research movement in the country.

6- Preparing graduates capable of absorbing and dealing with advanced modern technologies and contributing to their future development.

7- Qualifying distinguished graduates who are able to engage in postgraduate studies to contribute effectively to science to solve complex scientific and technical dilemmas to develop other scientific and technical fields.

8- Preparing scientific cadres that deal rationally with science in order to serve humanity and the environment and have an effective role in global scientific activity through their contribution to international scientific conferences.

9- Paying attention to forming the basic base for specialized postgraduate studies in the relevant departments and encouraging them to do so in order to keep pace with development.

10- Upgrading the level of technical and administrative staff to support the educational process and create new capabilities commensurate with quality requirements.

11- Diversifying sources of educational culture and linking the student's scientific concepts to the problems of the surrounding environment.

### 4. Program Accreditation

Does the program have program accreditation? And from which agency? Does the program have program accreditation? And from which agency?

12- Achieving educational goals and outcomes that meet distinguished academic standards.

13- Developing and developing the capabilities of faculty members.

14- Providing scientific services and consultations to various sectors of the state and private companies.

### 5. Other external influences

no

6. Program Structure										
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*						
Institution Requirements	8	90		Eessential						
College Requirements	Yes									
Department Requirements	yes									
Summer Training	yes									
Other	yes									

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

7. Program Description										
Year/Level	Course Code	Course Name	Credit Hours							
4		invertebrate	theoretical	practical						

8. Expected learning	8. Expected learning outcomes of the program								
Knowledge									
Learning Outcomes 1	<ul> <li>A1- To create an appropriate environment that promotes learning and growth and imparts the ability to work with multidisciplinary groups in professional, health and research organizations</li> <li>A2- To expand and deepen their abilities in analytical and experimental research methods, data analysis, and drawing relevant conclusions for scientific writing and presentation.</li> <li>A3- Introducing the student to the basic principles related to the</li> </ul>								

	science of pathological analysis and everything related to it.
Skills	
Learning Outcomes 2	B1 - Learn the ability to understand and comprehend
	B2 - Learn the ability to remember
	B3 - Learn the ability to relate and deduce
Learning Outcomes 3	Learning Outcomes Statement 3
Ethics	
Learning Outcomes 4	1-Powerpoint
-	2- PDF
	3- Word
	4- Educational videos
Learning Outcomes 5	Learning Outcomes Statement 5

### 9. Teaching and Learning Strategies

At the end of the year, the student will be familiar with the following:

1- Introducing the student to the basic principles related to invertebrate science

2- - The teaching of this course aims to cover topics in the theoretical foundations that aim at methods of classifying invertebrate organisms.

3- Giving the student an expanded idea and conversation about the science and diversity of invertebrates in different environments, land and water.

### **10. Evaluation methods**

Weekly, monthly, daily exams and the end-of-semester exam.

11.Faculty							
Faculty Members							
Academic Rank	Specializa	ation	Special Requirement (if applicable	s/Skills )	Number of the teaching staff		
	General	Special			Staff	Lecturer	
Assistant prof	biology	invertebrates					

Professional Development
Mentoring new faculty members
Orienting new faculty members.
Professional development of faculty members
Professional development for faculty members.

### 12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central

### 13. The most important sources of information about the program

-Moore, J. (2001). An introduction to the invertebrates. Cambridge University Press. -Roberts, L. S. ; Janavy, J. JR. and Nadlers S. (2013). Gerald D schmidt and larry S. Robents'' Foundations of Parasitolegy, edh., McGrwo-Hill comPanies, Inc., United states : 670 PP.

14. Program Development Plan

Updating curricula according to recent scientific discoveries.

	Program Skills Outline														
		Required program Learning outcomes													
Year/Level	Course Code	Course Code	Course Code	Year/Level Course Code		Basic or optional	Knowledge			Skills			Ethics		
			-	A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	C4
2024-2025		Invertebrate	basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

### **Course Description Form**

1 0						
1. C	1. Course Name:					
Invertebrate						
2. C	ourse Co	ode:				
		/				
3. S	emester	/ Year:				
4/8						
4. D	escriptio	on Preparation D	ate:			
14/2/20	25					
5. A	vailable	Attendance Forms	5:			
Iı	n person	only				
6. N	Number of	f Credit Hours (To	otal) / Number	of Unit	s (Total)	
7	5 hour p	er semester				
7. C	Course a	dministrator's na	me (mention	all, if n	nore than one	name)
Name:	Assistan	it prof .Ali Mohamr	ned Abed			
E	mail: <u>a-m</u>	n.abdnasir@tu.edu.iq				
		<u> </u>				
8. C	Course Ob	ojectives				
At the e	end of the	e semester, the st	udent w•		••••	
be fami	liar with	the following ma	atters:		•••••	
1. Intro	ducing t	he student to the	basic •		•••••	
princip	les relate	ed to the inverteb	orate			
science	curricul	um				
2. Teac	hing this	course aims to r	provide t			
student	t with s	ufficient knowle	dge ahr			
the general characteristics of invortabre						
animal groups and to identify their me						
annual groups and to identify them in prominant characteristics advantag						
bonofits and harms						
	S allu lla	and Loorning Strat				
7. 1 Strategy		and Learning Stra	icgics			
Bildiegy		1 Education	al stratogy of	llahar	tivo concont n	lonning
2- Brainstorming education strategy						
2- Education Strategy Notes Series						
5- Education Strategy Notes Series						
10 0-		atura				
IU. UO	urse Stru	Required	Unit on subject	nomo	Looming	Evaluation
vv eek	nours	Requirea	Unit or subject	name	Learning	Evaluation

		Loarning			method	method
		Outcomes			methou	methou
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15		Outcomes Providing students with analysis skills. 2- Informing students about t most important modern sources the field theoretica invertebra science		invertebrates	1-Learn the ability to understand and assimi 2- Learn ta ability to remember 3- Learn ability connect deduce	Weekly, monthly daily, written and er of- semeste exams
11.Cou	se Eval	uation				
The distribution is as follows: 50 marks for monthly and daily exams for the semester. 50						
marks for final exams						
12.Lear	ning an	d Teaching Resour	rces			
Required textbooks (curricular books, if any)			Roberts, L.S. and Janovy, J. (2013). Foundation of parasitology			
Main references (sources)			Roberts, L.S. and Janovy, J. (2013). Foundation of parasitology			
Recommended books and references (scientific journals, reports)			Moore, J. (2001). An introduction to the invertebrates. Cambridge University Press.			
Electronic References, Websites			<u>https://www.researchgate.net/</u> <u>https://scholar.google.com/schhp?hl=</u>			



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

### **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 3/5/2024 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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: .....Tikrit university ..... Faculty/Institute: .....College of science ...... Scientific Department: .....Biology ..... Academic or Professional Program Name:... Biology Final Certificate Name: .....Biology.... Academic System: .....Semesters ..... Description Preparation Date: 5/10/2024 File Completion Date: 2025/02/14

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

### 1. Program Vision

Creating a distinguished scientific base for basic sciences that meets the requirements of society and industrial institutions and fills their needs, so that the college becomes unique with a distinguished scientific personality to achieve academic standards and reach Arab and international accreditation during the next five years.

### 2. Program Mission

Providing an advanced educational environment and developing a nucleus for scientific research capable of providing society with scientific competencies and trained specialized personnel through the introduction of the latest scientific technologies.

### 3. Program Objectives

1- Creating awareness and belief among the graduate in the civilizational mission of our nation and its pioneering and historical role in the emergence of human scientific civilization and its scientific development.

2- Preparing the specialized graduate who is familiar with the theoretical foundations of basic sciences and their field applications.

3- Providing the graduate with the scientific expertise required by the future field of work and informing him of the latest technical developments.

4- Creating a qualified cadre to engage in the field of university education in the future and capable of advancing the educational process in the various fields of science.

5- Qualifying scientific researchers who have the correct foundations for scientific research and development to be able to support the scientific and technological research movement in the country.

6- Preparing graduates capable of absorbing and dealing with advanced modern technologies and contributing to their future development.

7- Qualifying distinguished graduates who are able to engage in postgraduate studies to contribute effectively to science to solve complex scientific and technical dilemmas to develop other scientific and technical fields.

8- Preparing scientific cadres that deal rationally with science in order to serve humanity and the environment and have an effective role in global scientific activity through their contribution to international scientific conferences.

9- Paying attention to forming the basic base for specialized postgraduate studies in the relevant departments and encouraging them to do so in order to keep pace with development. 10- Upgrading the level of technical and administrative staff to support the educational process and create new capabilities commensurate with quality requirements.

11- Diversifying sources of educational culture and linking the student's scientific concepts to the problems of the surrounding environment.

### 4. Program Accreditation

Does the program have program accreditation? And from which agency? 12- Achieving educational goals and outcomes that meet distinguished academic standards.

13- Developing and developing the capabilities of faculty members.

14- Providing scientific services and consultations to various sectors of the state and private companies.

### 5. Other external influences

no

6. Program Structure					
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*	
Institution Requirements	8	90		Essential	
College Requirements	Yes				
Department Requirements	Yes				
Summer Training	Yes				
Other					

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

7. Program Description							
Year/Level	Course Code	Course Name	Credit Hours				
4		Pathological analysis	theoretical	practical			

### 8. Expected learning outcomes of the program
Knowledge			
Learning Outcomes 1	Knowledge and understanding		
	1- Explain the reasons for air pollution		
	2- It defines the damage caused by air pollution		
	3- Explanation of how the phenomenon of global warming and razor		
	4- Explain the damage caused by the ozone hole		
Skills			
Learning Outcomes 2 B1 - Learn the ability to understand and comprehend			
	B2 - Learn the ability to remember		
	B3 - Learn the ability to relate and deduce		
Learning Outcomes 3	Learning Outcomes Statement 3		
Ethics			
Learning Outcomes 4	1-Powerpoint		
	2- PDF		
	3- Word		
	4- Educational videos		

## 9. Teaching and Learning Strategies

At the end of the year, the student is familiar with the following matters:

1- That the student be aware of the pollution.

2- That the student be aware of the ecosystem.

3- The student must be aware of the types of pollutants and their impact on the environment in general and the human being in particular.

## **10. Evaluation methods**

Weekly, monthly, daily exams and the end-of-semester exam.

11.Faculty						
<b>Faculty Members</b>						
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Prof	Biology	pollution			/	

Professional Development
Mentoring new faculty members
Orienting new faculty members.
Professional development of faculty members
Professional development for faculty members.

## 12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

## 13. The most important sources of information about the program

- Books and research published by Iraqi universities and universities in discreet-
- Water pollution written by Prof. Mr. Ahmed Al -Khatib / Alexandria University / Egypt
- The electronic virtual library, discreet references from the Internet

14.Program Development Plan

Updating curricula according to recent scientific discoveries.

			Pro	ogram	Skills	Outl	ine								
							Req	uired	progr	am Lo	earnin	g outcon	ies		
Year/Level	Course Code	Course Name	Basic or optional	c or Knowledge Sk		Skills			Ethics						
				A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	C4
2024/2025		Pollution	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

# **Course Description Form**

1. Coi	irse N	am	e:						
Pollution									
2. Cou	arse Co	ode	:						
3. Sen	nester	• / Y	'ear:						
4/8									
4. Des	cripti	on I	Preparation Dat	e:					
14/02/20	25								
5. Ava	ailable	Att	endance Forms:						
In p	person	n on	ly						
6. Nui	nber o	of C	redit Hours (Tota	al) / Number of Unit	s (Total)				
75	hours	per	semester						
7. Co	urse a	adm	inistrator's nam	ne (mention all, if n	nore than one	e name)			
Nar	ne: Ib	rah	im Omar Saeed						
Em	ail: <u>dr.</u>	ibra	<u>ahim1977@tu.e</u>	<u>du.iq</u>					
8. Cou	irse O	bjec	tives						
At the end of the following	of the ye	ear, t	he student will be fa	imiliar with •	•••••				
The student	's ability	y to i	dentify the types of	environmer •	•••••				
pollution- a	ir pollı	ution	, water pollution,	soil polluti					
and know the	le most treatme	impo nt o	ortant pollutants, th r reduce them and	eir causes : to identify					
changes t	hat o	)ccui	when develop	oing vari					
diseases.abo	ut the s	cien	ce of pathological an	alyzes and					
normal and	abnorr	nal 1	ranges, in addition	to the chan					
	ching	and	a with various disea	ses.					
9. 10a Strategy		anu	At the ord of	gics If the year the stud	ont is familiar	with the			
Strategy			following ma	ttors	ent is familia	with the			
			1 That the st	uers. Judant ha know of t	he pollution				
			2 That the st	udent be know of t	the pollution.				
	2- That the student be aware of the ecosystem.								
	3- The student must be aware of the types of pollutants and th								
nipact on the environment in general and the numan being									
10 Cours	o Stru	par	ro						
Week	Hour	s	Required	Unit or subject	Learning	Evaluation			
VV CCK	IIoui	5	Learning name method method						
			Outcomes						
1	2			Pollution	1-Learn the	Weekly,			
2					ability to	monthly,			

3		1- Providing			understand	daily, v	writt	
4		students with			and assimila	and	end-	
5		analysis skills.			2- Learn the	semeste	er	
6		2- Informing			ability to	exams.		
7		students about			remember			
8		the most			3- Learn t			
9		important			ability			
10		modern source			connect a			
11		in the field of			deduce			
12		pathological						
13		analyses.						
14								
15								
11.Cours	se Evaluat	tion	_					
The distrib	ution is as	follows: 25 marks	for mo	onthly and dail	y exams for the	semester	. 50	
marks for f	inal exams	S Saaahing Dagayna	20					
IZ.Lean	vtbooks (ci	rricular books if an	es v)	No for	und			
Main refere			y)		ullu Ira and magaan	h muhlia	had	
	Main references (sources)			- Books and research published				
				Iraqi	universities a	na mieri	latio.	
Recommended books and references (scientific			Universities					
journals, reports)				hmod A1 Kho	tib / Ala	101. I vond		
10 arring, reportant,			IVII. A	reity / Fount	ulu / Ale	лапи		
Electronic References Websites			Unive	isity / Egypt				
Electronic References, websites			https://www.researchgate.net/					



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

# **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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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: .Tikrit university ...... Faculty/Institute: .. the sciences...... Scientific Department: .... of biology...... Academic or Professional Program Name: .... department of biology...... Final Certificate Name: Bachelor's degree in department Sciences..... Academic System: ... courses ...... Description Preparation Date: 5/10/2023 File Completion Date: 16/03/2024

Signature: Iman Adoan Head of Department Name: Signature: Firas Fars raga Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

**Approval of the Dean** 

1. Program Vision

Forming a sound scientific foundation on which the student can rely in the future from a practical standpoint and linking topics correctly with the requirements of life when he engages in the labor market.

### 2. Program Mission

Providing an appropriate educational environment for students that ensures the delivery of scientific information in a manner that keeps pace with current modernity, in addition to expanding the information base by enriching the student with external information in addition to the specific curriculum.

## 3. Program Objectives

-Create an appropriate environment that promotes learning and growth and imparts the ability to work with multidisciplinary groups in professional, health and research organizations.

2-To expand and deepen their abilities in analytical and experimental research methods, data analysis, and drawing relevant conclusions for scientific writing and presentation.

3- Introducing the student to the basic principles of life's compounds and their relationship with each other

#### 4. Program Accreditation

nothing

## 5. Other external influences

nothing

6. Program Struct	6. Program Structure							
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*				
Institution Requirements	90	3		Basic course				
College Requirements	yes							
Department Requirements	yes							
Summer Training	Existing							
Other								

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

7. Program Description							
Year/Level	Course Code	Course Name		Credit Hours			
2025-2024/second		Biochemistry	particle	theory			

8. Expected learning outcomes of the program						
Knowledge						
Understanding life molecules	the components of life molecules					
Knowing						
Skills						
-Training skills on laboratory	equipment					
	Conducting laboratory tests					
visiting scientific sites	related to the course topics					
	Value					
Ethics						
Developing students' abilities	Understanding, analysis and conclusion					
to share ideas						
-Power point 2-PDF	Share the spirit of teamwork					
3-Word						
4- Conducting laboratory						
analyzes and experiments						

## 9. Teaching and Learning Strategies

1- Introducing the student to what is the basic structure of life's components and chemical and biological compositions. 2- Building a basic and correct basis in laboratory work, including methods for detecting carbohydrates, proteins, etc. 3- Knowing healthy food molecules and how to deal with them according to the body's need, and avoiding foods that may lead to disease.

### **10. Evaluation methods**

Weekly, monthly, daily exams and the end of the year exam.

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

Doctor teacher	Special		Staff	

Professional Development
Mentoring new faculty members
Professional development of faculty members

12. Acceptance Criterion

13. The most important sources of information about the program

14.Program Development Plan

Adding advanced techniques related to advanced analyses

			Pro	gram	Skills	Outl	ine								
				Required program Learning outcomes											
Year/Level	Year/Level Course Course Name Code	ne Basic or K optional		wledge			Skill	5			Ethics				
		A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	<b>C2</b>	<b>C</b> 3	<b>C4</b>		
2024-2025		Biochemistry	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

# **Course Description Form**

1. Course Nam	ne: Bio chemistry				
2. Course Code	2. Course Code: Bio chemistry				
3. Semester /	Year: terminal				
4. Description	Preparation Date: 2024\3	\16			
5. Available A	ttendance Forms: My preser	ice only			
6. Number of C	Credit Hours (Total) / Numb	er of Units	(Total)		
hour annua	lly. 8 hours per week				
7. Course adr	ninistrator's name (mentic	on all, if m	ore than one	name)	
Name: hiba	hamza Rasheed				
Email: hibai	rasheed@tu.edu.iq				
8. Course Obje	ctives				
<ul> <li>Course Objectives</li> <li>At the end of the semester, the student will be familiar following matters</li> <li>1-Introducing the student to the basic life molecules rel biochemistry</li> <li>2- The teaching of this course aims to cover topics in th foundations that include life compounds from the chem biological aspects.</li> <li>3- Identify the relationships between these compound</li> </ul>					
9. Teaching an	d Learning Strategies				
Strategy	1- Setting goals and ol objectives. 2- Developin students the practical asp	ojectives in ng a scientif pect and its c	order to reach t ic plan within a onnection to wor	the desired results : specific time to te k in public laborator	
10. Course Structu	ıre				
Week Hours	Required Learning Outcomes	Unit or subjec t name	Learning method	Evaluation method	

1	2 hour	-Carbohydrates	PDF	Weekly,
_		-Monosaccharide	Power	
2	2 hour	-Category	point	monthly,
		Calculate a numb		
		-Isomers		daily,
2		-Diabetic closure	PDF	
3	2 hour		Power	written
4	21	-Disaccharides	point	
	2 nour	-oligosaccharides		exams, ai
5	2 hour	-Multiple sugars	PDF	the end-c
		-Classification	Power	
6	2 hour	-Fats	point	year exar
		-Its types		5
7	2 hour	- Neutral fats		
			PDF	
8	2 hour	Phosphorylated	Power	
0		lipids - spongy	point	
9	2 hour	lipids		
10		-Cereaceae		
10	2 hour	-Steroids	PDF	
11			Power	
11	2 hour	-amino acids	point	
12		-Classification		
1 -	2 hour	-Peptides		
13			PDF	
	2 hour	Semester exam	Power	
14			point	
15	2 hour	-Proteins		
		-Classification		
16	2 hour	-Structures of		
		proteins	PDF	
			Power	
17	2 h	Nucleis est de	point	
	∠ nour	-INUCIEIC ACIOS		
		-installation		
		-importance		
			PDF	
10	2 hour		noint	
18	2 11001		point	

19	2 hour			PDF Power point PDF Power point	
11.Cour	se Evaluation				
Distributir	ng the score ou	t of 100 according to the tas	ks assi	gned to the stud	ent such as daily
preparatio	n, daily oral, m	onthly, or written exams, repo	orts e	etc	
12.Lear	ning and Teac	hing Resources			
Required te	extbooks (curricu	ilar books, if any)		Biochemist	ry / Prof. Dr.
				Khawla Ah	med Al-Flih
Main refere	ences (sources)			Biochemist	rv / Prof.
	· · · ·			Khawla Ah	med Al-Flih
Recomment reports)	ded books and	references (scientific journa	ls,		
Electronic	References, Web	osites			

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

# **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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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: .Tikrit university ...... Faculty/Institute: .. the sciences...... Scientific Department: .... of biology...... Academic or Professional Program Name: .... department of biology...... Final Certificate Name: Bachelor's degree in department Sciences..... Academic System: ... courses ...... Description Preparation Date: 5/10/2024 File Completion Date: 16/03/2025

Signature: Iman Adoan Head of Department Name: Signature: Firas Fars raga Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

**Approval of the Dean** 

15.Program Vision

Forming a sound scientific foundation on which the student can rely in the future from a practical standpoint and linking topics correctly with the requirements of life when he engages in the labor market.

### 16. Program Mission

This academic program description provides a necessary summary of the most important characteristics of the program and the learning outcomes that the student is expected to achieve, demonstrating whether he has made the most of the available opportunities. It is accompanied by a description of each course within the program.

## 17. Program Objectives

1-Create an appropriate environment that enhances learning and growth and imparts the ability to work with multidisciplinary groups in professional, health, and research organizations.

2-To expand and deepen their abilities in analytical and experimental research methods, data analysis, and drawing relevant conclusions for scientific writing and presentation.

3- Introducing the student to the basic principles of life's compounds and their relationship with each other

#### **18. Program Accreditation**

nothing

## 19. Other external influences

nothing

20. Program Struc	ture			
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*

Institution Requirements	90	3	Basic course
College Requirements	yes		
Department Requirements	yes		
Summer Training	Existing		
Other			

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

21. Program Description					
Year/Level	Course Code	Course Name		Credit Hours	
2025-2024/second	<b>Clinical chemistry</b>		particle	theory	

22. Expected learning	outcomes of the program
Knowledge	
1- Understanding the metabolic processes that occur within the body 2- Knowing the interactions that affect	it 3- Understanding the metabolic processes that occur within the body 4- Knowing the interactions that affect it
Skills	
- Knowledge of the metabolic processes that occur in the body A2- Knowledge of diseases associated with metabolic processes	A3- Understanding of the relationship between diseases and metabolic reactions - Knowledge of the metabolic processes that occur in the body A2- Knowledge of diseases associated with metabolic processes A3- Understanding of the relationship between diseases and metabolic reactions
Ethics	
-To expand and deepen their abilities in analytical and experimental research methods, data analysis, and drawing relevant conclusions.	1-To create an appropriate environment that promotes learning and growth and imparts the ability to work with multidisciplinary groups in professional, health and research organizations.

# 23. Teaching and Learning Strategies

## 24. Evaluation methods

## Weekly, monthly, daily exams and the end of the year exam.

25.Faculty							
<b>Faculty Members</b>							
Academic Rank	Specialization		Special Requirement (if applicable	s/Skills )	Number of the teaching staff		
	General	Special			Staff	Lecturer	
Doctor teacher		Special			Staff		

### Professional Development Mentoring new faculty members

**Professional development of faculty members** 

## 26. Acceptance Criterion

## 27. The most important sources of information about the program

28.Program Development Plan

Adding advanced techniques related to advanced analyses

			Pro	ogram	Skills	Outl	ine								
							Requ	uired	progr	am Lo	earnin	g outcon	ies		
Year/Level Course Course Name Code		ourse Name Basic or Ki		vledge			Skills	5			Ethics				
			_	A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	<b>C4</b>
2024-2025		Clinic chemistry	Basic												
															ļ

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

## **Course Description Form**

13.Course	Name:	clinical	chemistry

14.Course Code: clinical chemistry

15.Semester / Year: terminal

16. Description Preparation Date: 2025\3\16

17. Available Attendance Forms: My presence only

18.Number of Credit Hours (Total) / Number of Units (Total) hour annually. 8 hours per week

Course administrator's name (mention all, if more than one name) 19. Name: hiba hamza Rasheed Email: hibarasheed@tu.edu.iq

	20. Course Objectives
7	

<b>Course Objectives</b>	•
21. Teaching and Learn	ing Strategies

Strateg	gy

00 a.

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 hour	Introduction to metabolism -		PDF Power	Weekly,
2	2 hour	Demolitions and construction – Carbohydrate		point	monthly, daily,
3	2 hour	metabolism		PDF Power	written
4	2 hour	Digestion of - carbohydrates -		point	exams, an
5	2 hour	absorption		PDF Power	the end-o
6	2 hour	Anaerobic - glycolysis		point	year exam

7	2 hour	alcoholic -		
		fermentation	PDF	
8	2 hour	-	Power	
		Aerohic glycolysis	point	
9	2 hour	Krohs cycla-	Point	
	2 110 41	The respiratory		
10	2 hour	shain The nentage	PDF	
	2 110 01	chain - The pencose	Power	
11	2 hour	phosphate	noint	
	2 11001	pathway - The	point	
12	2 hour	glyoxylate cycle		
	2 11001	Glycogenesis-	DUE	
13	2 hour	Glycogenolysis-	Dower	
	2 11001	Gluconeogenesis-	noint	
14	2 hour	Energy calculations	point	
15	2 110ui	foraerobic and		
	2 hour	anaerobicglycolysis		
16	2 110ui	processes	סתת	
			PDF	
		Introduction and-	Power	
17	2 h	definition	point	
	Z nour	ofmetabolic		
		disorders and		
		theirprocesses	חסס	
		Glycogen Storage	PDF	
	21	Diseases	Power	
18	2 hour	Symptoms	point	
		Diagnosis		
		Trootmont		
			PDF	
		GALACIOSEMIA-	Power	
		Symptoms-	point	
		Diagnosis-	555	
19	2 hour	-Treatment	PDF	
			Power	
			point	
23.Cours	se Evaluation			
Distributin	g the score out	of 100 according to the t	asks assigned to the stu	dent such as daily
24 Loarr	ing and Teach	indig, of written exams, re	ports etc	
24.Lean	thooks (curricul	ar books if any)	Courses from	m the Internet
Kequileu le	XIDOOKS (Curricur	ai books, ii aliy)	Sources from	n the Internet
		12		

Main references (sources)	Al-Wajeez in Biochemistry
	Prof. Dr. Sami Abdel Mahdi
	Muzaffar
Recommended books and references (scientific journals,	
reports)	
Electronic References, Websites	

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

# **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.

<u>Course Description</u>: 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.

**<u>Program Vision</u>**: 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.

<u>Curriculum Structure</u>: 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: .....Tikrit university ..... Faculty/Institute: ......College of science ...... Scientific Department: ......Biology ...... Academic or Professional Program Name:... Bachelor of Biology... Final Certificate Name: ..... Bachelor of Biology.... Academic System: ......Semesters ...... Description Preparation Date: 5/10/2024 File Completion Date: 2025/03/15

Signature: Head of Department Name: Dr: Ayman Adwan Abd Date: Signature: Scientific Associate Name: Dr: Firas Faris Rija Date: The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

**Approval of the Dean** 

## 1. Program Vision

Creating a distinguished scientific base for basic sciences that meets the requirements of society and industrial institutions and fills their needs, so that the college becomes unique with a distinguished scientific personality to achieve academic standards and reach Arab and international accreditation during the next five years.

## 2. Program Mission

Providing an advanced educational environment and developing a nucleus for scientific research capable of providing society with scientific competencies and trained specialized personnel through the introduction of the latest scientific technologies.

## 3. Program Objectives

1- Creating awareness and belief among the graduate in the civilizational mission of our nation and its pioneering and historical role in the emergence of human scientific civilization and its scientific development.

2- Preparing the specialized graduate who is familiar with the theoretical foundations of basic sciences and their field applications.

3- Providing the graduate with the scientific expertise required by the future field of work and informing him of the latest technical developments.

4- Creating a qualified cadre to engage in the field of university education in the future and capable of advancing the educational process in the various fields of science.

5- Qualifying scientific researchers who have the correct foundations for scientific research and development to be able to support the scientific and technological research movement in the country.

6- Preparing graduates capable of absorbing and dealing with advanced modern technologies and contributing to their future development.

7- Qualifying distinguished graduates who are able to engage in postgraduate studies to contribute effectively to science to solve complex scientific and technical dilemmas to develop other scientific and technical fields.

8- Preparing scientific cadres that deal rationally with science in order to serve humanity and the environment and have an effective role in global scientific activity through their contribution to international scientific conferences.

9- Paying attention to forming the basic base for specialized postgraduate studies in the relevant departments and encouraging them to do so in order to keep pace with development.

10- Upgrading the level of technical and administrative staff to support the educational process and create new capabilities commensurate with quality requirements.

11- Diversifying sources of educational culture and linking the student's scientific concepts to the problems of the surrounding environment.

## 4. Program Accreditation

Does the program have program accreditation? And from which agency? 12- Achieving educational goals and outcomes that meet distinguished academic standards.

13- Developing and developing the capabilities of faculty members.

14- Providing scientific services and consultations to various sectors of the state and private companies.

## 5. Other external influences

no

6. Program Structure										
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*						
Institution Requirements	8	90		Essential						
College Requirements	Yes									
Department Requirements	Yes									
Summer Training	Yes									
Other										

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

7. Program Description									
Year/Level Course Code Course Name Credit Hours									
fourth		Biodiversity	theoretical	practical					
			2 hour	3 hours					

8. Expected learning	outcomes of the program
Knowledge	
Learning Outcomes 1	<ul> <li>A1- To create an appropriate environment that promotes learning and growth and imparts the ability to work with multidisciplinary groups in professional, health and research organizations</li> <li>A2- To expand and deepen their abilities in analytical and experimental research methods, data analysis, and drawing relevant conclusions for scientific writing and presentation.</li> <li>A3- Introducing the student to the basic principles related to the science of Biodiversity and everything related to it.</li> </ul>
Skills	
Learning Outcomes 2	<ul><li>B1 - Learn the ability to understand and comprehend</li><li>B2 - Learn the ability to remember</li><li>B3 - Learn the ability to relate and deduce</li></ul>
Learning Outcomes 3	Learning Outcomes Statement 3
Ethics	
Learning Outcomes 4	1-Powerpoint 2- PDF 3- Word 4- Educational videos

## 9. Teaching and Learning Strategies

At the end of the year, the student will be familiar with the following:

- 1- Introducing the student to the basic principles related to Biodiversity
- 2- To classify the needs to develop the practical reality of biodiversity
- 3 The student gets to know the natural forms

## **10. Evaluation methods**

Weekly, monthly, daily exams and the end-of-semester exam.

11.Faculty			
<b>Faculty Members</b>			
Academic Rank	Specialization	Special Requirements/Skills (if applicable)	Number of the teaching staff
		5	

	General	Special							Staff	Lecturer
Assistant prof	Biology	Genetic			/					
Assistant lecturer	Biology	Mycology			/					

#### Professional Development Mentoring new faculty members

Orienting new faculty members.

Professional development of faculty members

Professional development for faculty members.

### **12.Acceptance Criterion**

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

## 13. The most important sources of information about the program

- Books and research published in Iraqi universities and reputable international universities

- Basics of biodiversity, approved genetics books, Tikrit Journal of Pure Sciences

- The electronic virtual library, modern sources from the Internet

14. Program Development Plan

Updating curricula according to recent scientific discoveries.

	Program Skills Outline														
							Req	uired	progr	am Lo	earnin	g outcon	ies		
Year/Level	Year/Level Course Course Basic or Code Name optional		Basic or optional	Knowledge S			Skills			Ethics					
			A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	C4	
2025/2024		Biodiversity	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.
# **Course Description Form**

1. Cou	1. Course Name:						
Biodivers	Biodiversity						
2. Cou	irse Code	:					
3. Sen	nester / Y	/ear:					
4/8							
4. Des	cription	Preparation Date	2:				
15/03/20	25						
5. Ava	ailable Att	tendance Forms:					
In p	oerson on	ly					
6. Nui	nber of C	redit Hours (Tota	l) / Number of Unit	s (Total)			
75 ]	hours per	r semester					
7. Co	urse adm	ninistrator's name	e (mention all, if n	nore than one	e name)		
Nar	ne: Rafi Z	Zidan Mikhlif					
Nar	ne: Noor	Adnan Abdualla	h				
Em	ail: <u>Nyra</u>	9113@gmail.com	<u>n</u>				
8. Cou	urse Obiec	ctives					
At the end o	f the year, t	the student will be far	niliar with •	••••			
the following	g:		•	••••			
1- Introduci	ng the stude	ent to the basic princ	iples relate	••••			
2- To classif	y the needs	to develop the practi	cal reality				
biodiversity	•						
3 - The stud	ent gets to k	know the natural form	ns ·				
9. Iea	ching and	Learning Strateg	jies				
Strategy			1 11 1		1 .		
		1- Educationa	l strategy, collabol	rative concept	planning.		
		2- Brainstorm	ing education stra	tegy.			
		3- Education S	strategy Notes Ser	les			
10. Cours	se Structu	re					
Week	Hours	Required	Unit or subject	Learning	Evaluation		
		Learning Outcomes	name	method	method		
1	2		Biodiversity	1-Learn the	Weekly,		
2		1- Providing	-	ability to	monthly,		
3		students with		understand	daily, writt		
4		analysis skills.		and assimila	and end-		
5		-					
5	1	l					

6 7 8 9 10 11 12 13 14 15		2- Informing students about the most important modern sources in the field of Biodiversity			2- Learn the ability to remember 3- Learn t ability connect a deduce	semester exams.
11.Cours	se Evaluat	ion				
The distrib	ution is as	follows: 25 marks	for mo	onthly and dail	y exams for the	e semester. 50
marks for f	inal exams					
12.Learn	ing and T	eaching Resource	es			
Required te	xtbooks (cu	irricular books, if an	y)	/		
Main references (sources)			Books and research published in Ir universities and reputable internatio universities			
Recommend	ded books	and references (sci	entific	Basics of b	oiodiversity, ap	oproved gene
journals, rep	ports)			books, Tikrit	Journal of Pure	Sciences
Electronic F	References,	Websites		https://www	r.researchgate.	<u>net/</u>

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

## **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:**

<u>Academic Program Description</u>: 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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.

<u>Curriculum Structure:</u> 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 extracurricular activities to achieve the learning outcomes of the program.

#### Academic Program Description Form

University Name: .Tikrit University...... Faculty/Institute: College of Sciences..... Scientific Department: ..Biology Department..... Academic or Professional Program Name: .Bachelor's.... Final Certificate Name: Bachelor's in biology..... Academic System:semester system ..... Description Preparation Date:14\3\2024 File Completion Date: 14\3\2025

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

#### 1. Program Vision

Creating a distinguished scientific base for basic sciences that meets the requirements of society and industrial institutions and fills their needs, so that the college becomes unique with a distinguished scientific personality to achieve

academic standards and reach Arab and international accreditation during the next five years.

#### 2. Program Mission

Providing an advanced educational environment and establishing a nucleus for scientific research capable of providing society with scientific competencies and trained specialized personnel through the introduction of the latest scientific technologies.

#### 1. Program Objectives1

1- Creating awareness and belief among the graduate in the cultural mission of our nation and its pioneering and historical role in the emergence of human scientific civilization and its scientific development.

2- Preparing a specialized graduate who is familiar with the theoretical foundations of basic sciences and their field applications.

**3-** Providing the graduate with the scientific experience required by the future field of work and informing him of the latest technical developments.

4- Creating a qualified cadre to engage in university education in the future and capable of advancing the educational process in the various fields of science.

5- Qualifying scientific researchers who have the correct foundations for scientific research and development to be able to support the scientific and technological research movement in the country.

6- Preparing graduates capable of absorbing and dealing with advanced modern technologies and contributing to their future development."

7- Preparing distinguished graduates who are able to engage in postgraduate studies to contribute effectively to science to solve complex scientific and technical dilemmas to develop other scientific and technical fields.

8- Preparing the scientific cadre that deals rationally with science in order to serve humanity and the environment and have an effective role in

global scientific activity through its contribution to international scientific conferences.

9- Paying attention to forming the basic base for specialized postgraduate studies in the relevant departments and encouraging them to do so in order to keep pace with development.

10- Upgrading the level of technical and administrative staff to support the educational process and create new capabilities commensurate with quality requirements.

11- Diversifying sources of educational culture and linking the student's scientific concepts to the problems of the surrounding environment.

12- Achieving educational goals and outcomes that meet distinguished academic standards.

13- Developing and developing the capabilities of faculty members.

#### 2. Program Accreditation

Does the program have program accreditation? And from which agency?

#### 3. Other external influences

Is there a sponsor for the program?

4. Program Structure								
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*				
Institution Requirements	90							
College Requirements	yes							
Department Requirements	yes							
Summer Training	Existing							
Other								

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

5. Program Description							
Year/Level	Course Code	Course Name		Credit Hours			
2023-2025		<b>Biological treatment</b>	theoretical	practical			
				3 hours			

6. Expected learning outcomes of the program					
Knowledge					
A1 Enabling students to understand the concept of biological treatment and its benefits.	Learning Outcomes Statement 1				
A2- Introducing students to beneficial microorganisms in biological water treatment.					
A3- Teaching students how to dilute water samples and grow them on different agricultural media.					
A4- Identify the physical, chemical and biological properties of water.					
A5- That the student recalls the information he studied carefully and verifies it scientifically.					
Skills					
B1 - Teaching students the importance of bacteria, their benefits and harms.	Learning Outcomes Statement 2				
B2 - Knowing the general characteristics of water and how to deal with it.					
B3 - Introducing students to the types of pollutants present and their role in transmitting diseases					
	Learning Outcomes Statement 3				
Ethics					
Monthly exams	Learning Outcomes Statement 4				
2- Daily exams					
3- Oral questions during the lecture time					

4-Reports	
5-Duties	
Learning Outcomes 5	Learning Outcomes Statement 5

#### 7. Teaching and Learning Strategies

At the end of the year, the student will be familiar with the following:

1- Enabling students to obtain knowledge and understanding of the intellectual and applied framework in biological treatment.

2- Enabling students to obtain knowledge and understanding of processing requirements in accordance with international standards

3- Informing students about modern techniques in biological treatment through presenting scientific research.

#### 8. Evaluation methods

Weekly, monthly, daily exams and the end-of-semester exam.

9. Faculty								
Faculty Members								
Academic Rank	nic Rank Specialization Special Requirements/Skills (if applicable)		s/Skills )	Skills				
	General	Special			Staff	Lecturer		
Assistant teacher	Biology	Environment and pollution			staff			

## Professional Development

#### Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

#### **10.Acceptance Criterion**

(Setting regulations related to enrollment in the college or institute, whether central

#### 11. The most important sources of information about the program

State briefly the sources of information about the program. Prescribed methodological books

Scientific sources

Local websites

#### 12.Program Development Plan

Including topics that are in line with modernity, the requirements of scientific and practical life, and what scientists have achieved on an ongoing basis, providing modern devices for biological treatment to conduct scientific experiments by students, and adopting modern technology for cognitive development and performance.

	Program Skills Outline														
				Required program Learning outcomes											
Year/Level	CourseCourseCodeName	CourseBasic orKNameoptionalA	Knowledge		Skills		Ethics								
			A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	C4	
															ļ

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

## **Course Description Form**

1. Course Name:

**Biological Treatment** 

#### 2. Course Code:

#### 3. Semester / Year:

semester

4. Description Preparation Date:

14\3\2025

5. Available Attendance Forms:

in person

6. Number of Credit Hours (Total) / Number of Units (Total)

3 hours from each week

7. Course administrator's name (mention all, if more than one name) Name: Assistant teacher Heba hamad mohammed Assistans teacher.Noor sabah

Email: heba.h.mohammed@tu.edu.iq

8. Course	Objectives	
The course in	cludes giving concepts related to	•
foundations of b	biological treatment and identifying	• • • • • • • • • • • • • • • • • • • •
Treatment met	thods and study of the spread a	• • • • • • • • • • • • • • • • • • • •
distribution of	pollutants and the conditions affect	
them.		
-Introducing th	he student to the general and ba	
material in biolo	ogical treatment	
-The import	tance of identifying import	
microorganisms	s present in water	
-Learn about the	ne importance of beneficial bacteria a	
View weter cor	ung ponution	
-view water sai	npies, conduct practical experiments, a stant of contamination in the sample	
0 Toochi	ng and L corring Strategies	
9. Teach	lig and Learning Strategies	
Strategy	Method of giving lectur	es
	2-Student groups	
	3-Practical lectures	
<u>L</u>	1	

		4-Scientific ed	ucational videos		
		5-Powerpoint			
10. Co	ourse Struc	ture			
Week	Hours	Required	Unit or subject	Learning	Evaluation
		Outcomes	name	method	method
1	3		1-Physical	in	written
2	3 hours	save	treatment	person	tests
3	3hours			-	
4	3hours	to	2-Indication		
5	3hours	understa	of pollution		
6	3hours	· · ·			
/ 0	3nours	analysis	3-TDS		
8 0	3hours		A-Indication		
<b>)</b>	3hours		of hacterial		
	bilouis		contaminati		
			5-Calculatin		
			the total		
			number		
			for coli		
·			hacteria		
			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
			6-The total		
			number of		
			bacteria		
			fecal colifor		
			7 Dlant		
			/- Plant		
			8-Nitrite		
1			9-Electrical		
			conductivity		

r	1	······
11.Course Evaluatio	n	
daily preparation daily	oral monthly or wr	to the tasks assigned to the student such as
12.Learning and Tea	ching Resources	
Required textbooks (curri	icular books, if any)	- The prescribed
		methodological book
Main references (sources)	)	Poole and record
	,	nublished in Iraqi universit
		and reputable internation
		universities
Recommended books an	d references (scienti	fic - Biological treatme
journals, reports)		book
Electronic References, W	ebsites	Electronic virtual library, so
		references from the Internet



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

## **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 3/5/2024 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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: .....Tikrit university ..... Faculty/Institute: ......College of science ...... Scientific Department: ......Biology ...... Academic or Professional Program Name:... Bachelor of Biology... Final Certificate Name: ..... Bachelor of Biology.... Academic System: ......Semesters ...... Description Preparation Date: 5/10/2024 File Completion Date: 2025/02/14

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

#### 1. Program Vision

Creating a distinguished scientific base for basic sciences that meets the requirements of society and industrial institutions and fills their needs, so that the college becomes unique with a distinguished scientific personality to achieve academic standards and reach Arab and international accreditation during the next five years.

#### 2. Program Mission

Providing an advanced educational environment and developing a nucleus for scientific research capable of providing society with scientific competencies and trained specialized personnel through the introduction of the latest scientific technologies.

#### 3. Program Objectives

1- Creating awareness and belief among the graduate in the civilizational mission of our nation and its pioneering and historical role in the emergence of human scientific civilization and its scientific development.

2- Preparing the specialized graduate who is familiar with the theoretical foundations of basic sciences and their field applications.

3- Providing the graduate with the scientific expertise required by the future field of work and informing him of the latest technical developments.

4- Creating a qualified cadre to engage in the field of university education in the future and capable of advancing the educational process in the various fields of science.

5- Qualifying scientific researchers who have the correct foundations for scientific research and development to be able to support the scientific and technological research movement in the country.

6- Preparing graduates capable of absorbing and dealing with advanced modern technologies and contributing to their future development.

7- Qualifying distinguished graduates who are able to engage in postgraduate studies to contribute effectively to science to solve complex scientific and technical dilemmas to develop other scientific and technical fields.

8- Preparing scientific cadres that deal rationally with science in order to serve humanity and the environment and have an effective role in global scientific activity through their contribution to international scientific conferences.

9- Paying attention to forming the basic base for specialized postgraduate studies in the relevant departments and encouraging them to do so in order to keep pace with development. 10- Upgrading the level of technical and administrative staff to support the educational process and create new capabilities commensurate with quality requirements.

11- Diversifying sources of educational culture and linking the student's scientific concepts to the problems of the surrounding environment.

#### 4. Program Accreditation

Does the program have program accreditation? And from which agency? 12- Achieving educational goals and outcomes that meet distinguished academic standards.

13- Developing and developing the capabilities of faculty members.

14- Providing scientific services and consultations to various sectors of the state and private companies.

#### 5. Other external influences

no

6. Program Structure								
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*				
Institution Requirements	8	90		Essential				
College Requirements	Yes							
Department Requirements	Yes							
Summer Training	Yes							
Other								

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

7. Program Description						
Year/Level	Course Code	Course Name	(	Credit Hours		
3		Cell Biology	theoretical	practical		

8. Expected learning outcomes of the program Knowledge

Learning Outcomes 1	<ul> <li>A1- To create an appropriate environment that promotes learning and growth and imparts the ability to work with multidisciplinary groups in professional, health and research organizations</li> <li>A2- To expand and deepen their abilities in analytical and experimental research methods, data analysis, and drawing relevant conclusions for scientific writing and presentation.</li> <li>A3- Introducing the student to the basic principles related to the science of pathological analysis and everything related to it.</li> </ul>
Skills	
Learning Outcomes 2	B1 - Learn the ability to understand and comprehend
	B2 - Learn the ability to remember
	B3 - Learn the ability to relate and deduce
Learning Outcomes 3	Learning Outcomes Statement 3
Ethics	
Learning Outcomes 4	1-Powerpoint
-	2- PDF
	3- Word
	4- Educational videos

#### 9. Teaching and Learning Strategies

At the end of the year, the student will be familiar with the following:

1- Introducing the student to the basic principles related to cell biology analyses

2- - The teaching of this course aims to cover topics in theoretical foundations that include the process of mechanisms for the occurrence of pathological conditions, the disorders that occur, and the diseases resulting from these disorders.

3 - The student gets to know the natural forms and pathological conditions, as well as the student's knowledge of normal and abnormal values (pathological conditions), as well as teaching the student the pathological conditions that lead to an increase or decrease in these values.

4- Giving the student an expanded and modern idea about the science of pathological analyzes and the normal and abnormal ranges, in addition to the changes that occur when infected with various diseases.

#### **10. Evaluation methods**

Weekly, monthly, daily exams and the end-of-semester exam.

#### 11.Faculty Faculty Members

6

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff		
	General	Special			Staff	Lecturer	
Assistant Prof	Biology	Cytogenetic			/		
Assistant Prof	Biology	Molecular genetic			/		

#### **Professional Development**

Mentoring new faculty members

Orienting new faculty members.

Professional development of faculty members

Professional development for faculty members.

#### **12.Acceptance Criterion**

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

#### 13. The most important sources of information about the program

 LECTURE NOTES: CELL BIOLOGY) BIOMEDICAL LABORATORY SCIENCE STUDENTS (By Dr. Callixte Yadufashije

- Cell science and genetics (Dr. Saad bin Hussein Saad Al-Qahtani)

14.Program Development Plan Updating curricula according to recent scientific discoveries.

	Program Skills Outline														
				Required program Learning outcomes											
Year/Level Course Code	Course Code	Course Name	Basic or optional	Knowledge Skills			Ethics								
				A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	<b>C4</b>
2024/2025		Cell biology	Basic			*			*				*		
															<b></b>

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

## **Course Description Form**

#### Cell biology

#### 2. Course Code:

#### 3. Semester / Year:

#### Semester

4. Description Preparation Date:

#### 14/02/2025

5. Available Attendance Forms:

In person only

## 6. Number of Credit Hours (Total) / Number of Units (Total)

75 hours per semester

# 7. Course administrator's name (mention all, if more than one name)

Name: Hayder Mudheher Abbas

Email: <u>Hayderalmudhhir@tu.edu.iq</u>

Name: Hadeel Abdulhadi Omear

Email: <u>hadeel.omear@tu.edu.iq</u>

8.	Course	Objectives

At the end of the year, the student will be familiar with	•	•••••
the following:	•	••••
1- Introducing the student to the basic principles related	•	•••••
to cell biology		
2 The teaching of this course aims to cover topics in		
theoretical foundations that include the process of		
mechanisms for the occurrence of cell biology conditio		
the disorders that occur, and the diseases resulting fro		
these disorders.		
3 - The student gets to know the natural forms and		
pathological conditions, as well as the student's		
knowledge of normal and abnormal values (pathologic		
conditions), as well as teaching the student the		
pathological conditions that lead to an increase or		
decrease in these values.		
4- Giving the student an expanded and modern idea ab		
the science of pathological analyzes and the normal		
abnormal ranges, in addition to the changes that oc		

# when infected with various diseases.9. Teaching and Learning Strategies

#### Strategy

- 1- Educational strategy, collaborative concept planning.
- 2- Brainstorming education strategy.
- 3- Education Strategy Notes Series

Week	Hours	Required Learning Outcomes	Unit o name	r subject	Learning method	Evaluation method
$ \begin{array}{c} 1\\2\\3\\4\\5\\6\\7\\8\\9\\10\\11\\12\\13\\14\\15\end{array} \end{array} $	2	<ol> <li>Providing students with analysis skills.</li> <li>Informing students about the most important modern source in the field of pathological analyses.</li> </ol>		Cell biology	1-Learn the ability to understand and assimila 2- Learn the ability to remember 3- Learn t ability connect a deduce	Weekly, monthly, daily, wri and end semester exams.
11.Cours The distrib marks for f 12.Learn Required te	e Evaluat ution is as inal exams ing and T xtbooks (cu	tion follows: 25 marks reaching Resource arricular books, if an	for mo es y)	nthly and dail - CELL )BION LABO	ly exams for the LECTURE N BIOLOGY MEDICAL RATORY SC	semester. 50 OTES: IENCE
Main refere	nces (sourc	es)		STUD Callix - طاني ) <u>Molecul</u>	ENTS ( By te Yadufashije لية والوراثة ( د. بن حسين سعد القحم <b>اar Biolog</b>	Dr. علم الخا سعد ب <u>y of the</u>
Recomment	led books ports)	and references (scie	entific	Molecular Biolo	gy of the Cell	

	By <u>Bruce Alberts</u> - Chancellor's Leadership Chair in Biochemistry and Biophysics for Science and Education
Electronic References, Websites	https://www.researchgate.net/

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

## **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 3/5/2025 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:**

<u>Academic Program Description</u>: 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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.

<u>Curriculum Structure:</u> 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.

<u>**Teaching and learning strategies:**</u> 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 extracurricular activities to achieve the learning outcomes of the program.

### **Academic Program Description Form**

University Name: ......Tikrit...... Faculty/Institute: .....science..... Scientific Department: ...Biology..... Academic or Professional Program Name: .....PhD..... Final Certificate Name: ..... PhD in Biology..... Academic System: ...course..... Description Preparation Date: 5/10/2025 File Completion Date: 16/3/2025

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

#### 1. Program Vision

The college of Science seeks to be one of the leading higher education institutions at the University of Tikrit in the field of modern education and scientific research through its scientific, research and administrative activities, and also works to provide an integrated path for its students and professors to make them active and creative in community service.

#### 2. Program Mission

Work on preparing and graduating leading scientific and leadership competencies in the fields of life sciences and in developing the knowledge balance in the field of scientific research to serve the local, regional and international community, as well as training and refining students' minds scientifically and cognitively, and emphasizing social values.

#### 3. **Program Objectives**

 Focusing the vision, mission and objectives of Tikrit University / College of Science, and applying the best educational practices with a focus on quality assurance and performance and enhancing them.
 Preparing specialized cadres capable of serving the community and preparing for the preparation of future specializations.

3. Spreading the culture of diversity, writing academic research and creative scientific achievement through activities that focus on students and teachers.

4. The college seeks to conclude scientific and cultural cooperation agreements with the corresponding colleges and the corresponding departments in the various colleges to achieve the best practices in the fields of teaching, learning and translation.

5. Focusing on the educational and moral aspect of all its members and spreading the spirit of dedication, tolerance, commitment and work to serve the country.

6. Paying attention to intellectual and cultural construction through openness to the experiences of other countries in scientific fields

7. Focusing on the educational and moral aspect of the student and spreading the spirit of dedication, tolerance and commitment.

#### 4. Program Accreditation

#### 5. Other external influences

6. Program Structure						
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*		
Institution	2			Basic		

Requirements			Course
College Requirements	Yes,		
Department Requirements	Yes,		
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			
2025-2025/3 <sup>rd</sup> stage		Cell biology	theoretical	Practical			
2025-2025/3 <sup>rd</sup> stage		Genetic	theoretical	Practical			

8. Expected learning outcomes of the program							
Knowledge							
Learning Outcomes 1	<ul> <li>Enable the student to take note of the subject of biology.</li> <li>The student should understand the nature of the genetic material and its chemical composition</li> <li>The student should understand the mechanisms of transmission and reproduction of genetic material.</li> </ul>						
Skills							
Learning Outcomes 2	Expanding the student's skill to work in laboratories and health institutions.						
Learning Outcomes 3	Learning Outcomes Statement 3						
Ethics							
Learning Outcomes 4	Developing students' abilities to participate						
Learning Outcomes 5	Ability to communicate constructively						

## 9. Teaching and Learning Strategies

Lectures, practical experiments, applications, scientific discussions

## **10. Evaluation methods**

Weekly, monthly, daily, year-end exams and reports.

11.Faculty			
<b>Faculty Members</b>			
Academic Rank	Specialization	Special	Number of the teaching staff
		<b>Requirements/Skills</b>	

			(if applicable)				
	General	Special		Staff	Lecturer		
Assistant lecturer	Biology	Cytogenetic					

Professional Development Mentoring new faculty members

Professional development of faculty members

#### 12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

#### 13. The most important sources of information about the program

Bolsover et al.,(2003). CELL BIOLOGY A Short Course. SECOND EDITION.
 CASARETT AND DOULL'S(2008). TOXICOLOGY. THE BASIC SCIENCE OF POISONS.
 Seventh Edition.

- Clare O'Connor, (2010). \_Essentials\_Cell\_Biology.

#### 14. Program Development Plan

Program Skills Outline															
				Required program Learning outcomes											
Year/Level Course Code	Course Code	Course Name	Basic or optional	Knowledge			Skills			Ethics					
				A1	A2	A3	A4	<b>B1</b>	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	C4
2024-2025		Biological cell													
		Genetic													

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.
# **Course Description Form**

1. (	Cours	se Name	2:			
Cell bi	ology	and gei	netic			
2. (	Cours	se Code:				
3. 9	Seme	ster / Y	ear:			
Course	;					
4. I	Desci	ription I	Preparation Date:			
16/3/20	)25					
5. 4	Avail	able Att	endance Forms:			
6. l	Numł	per of Ci	redit Hours (Total) / N	lumber of Units	s (Total)	
7. (	Cour	se adm	inistrator's name (m	ention all, if m	ore than one n	ame)
I	Name	e: Duaa	Hamada Salim			
l	Emai	l: <u>duaa.h.sa</u>	llim@tu.edu.iq			
8. (	Cours	se Objec	tives			
Course (	Object	ives		- Delivering a	general idea of life	e sciences and
				importance (	of this course to and students are a	0 non-speciali lso provided v
				some skills and	l information that n	nake them fami
				with the most	important topics the	at they may fac
0.5	<b>-</b> 1	• •	<b>T 1 0 1</b>	daily practical	life.	
9.	Feach	ning and	Learning Strategies		• • •	
Strategy	r	]	l - Education strategy	<sup>v</sup> collaborative	concept planni	ng.
		2	2- Brainstorming edu	ication strateg	у.	
			3- Education Strategy	v Notes Series		
10. Co	ourse	Structur	e			
Week	Hou	rs	Required Learning	Unit or	Learning	Evaluation
			Outcomes	subject name	method	method

10       11         12       13         13       14         15       Understanding the topic of lectures With a monthly or daily exam         - Familiarize students With new laboratory equipment theoretical       - Familiarize students With new laboratory equipment theoretical         3       2hours/ theoretical       - Familiarize students wills an information       Genetic/ 2 <sup>nd</sup> course         3       3hours/ Practical       - Familiarize students wills an information       Genetic/ 2 <sup>nd</sup> course         10       3 - Linking previous lectures with the current lectures with the current lectures with the current lecture.       S- amis.         11       11	1 2 3 4 5 6 7 8 9	2hours/ theoretical 3hours/ Practical	Understanding the topic of lectures With a monthly or daily exam - Familiarize students With new laboratory equipment that enables them acquire new skills information	Cell biology / 1 <sup>st</sup> course	<ul> <li>1-Explanation of the scientific material</li> <li>2-Writing and drawing illustrations on the blackboard</li> <li>3- Linking previous lectures with the current lecture.</li> </ul>	Weekly, monthly, daily, writt and end- year exams.				
11.Course EvaluationThe distribution is as follows: 35 degrees monthly and daily exams for theoretical. 15degrees monthly and daily exams for practical with reports. 50 marks for practical and	10 11 12 13 14 15 1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	2hours/ theoretical 3hours/ Practical	Understanding the topic of lectures With a monthly or daily exam - Familiarize students With new laboratory equipment that enables them to acquire new skills an information	Genetic/ 2 <sup>nd</sup> course	1-Explanation of the scientific material 2- Writing and drawing illustrations on the blackboard 3- Linking previous lectures with the current lecture.	Weekly, monthly, daily, written and end- of-year exams.				
	11.Co The dis degrees	11.Course EvaluationThe distribution is as follows: 35 degrees monthly and daily exams for theoretical. 15degrees monthly and daily exams for practical with reports. 50 marks for practical and								

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	CELL BIOLOGY
Main references (sources)	
Recommended books and references (scientific	Bolsover et al., (2003). CELL BIOLOGY A
journals, reports)	Short Course. SECOND EDITION.
	- CASARETT AND DOULL'S(2008).
	TOXICOLOGY. THE BASIC SCIENCE OF
	POISONS. Seventh Edition.
	- Clare O'Connor,(201
	<pre>_Essentials_Cell_Biology.</pre>
Electronic References, Websites	https://www.researchgate.net/

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

# **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 3/5/2024 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:**

<u>Academic Program Description</u>: 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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.

<u>Curriculum Structure:</u> 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 extracurricular activities to achieve the learning outcomes of the program.

#### **Academic Program Description Form**

University Name: ......Tikrit...... Faculty/Institute: .....science..... Scientific Department: ...Biology..... Academic or Professional Program Name: .....PhD..... Final Certificate Name: ..... PhD in Biology..... Academic System: ...course..... Description Preparation Date: 5/10/2024 File Completion Date: 13/3/2025

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

#### 1. Program Vision

The college of Science seeks to be one of the leading higher education institutions at the University of Tikrit in the field of modern education and scientific research through its scientific, research and administrative activities, and also works to provide an integrated path for its students and professors to make them active and creative in community service.

#### 2. Program Mission

Work on preparing and graduating leading scientific and leadership competencies in the fields of life sciences and in developing the knowledge balance in the field of scientific research to serve the local, regional and international community, as well as training and refining students' minds scientifically and cognitively, and emphasizing social values.

#### 3. **Program Objectives**

 Focusing the vision, mission and objectives of Tikrit University / College of Science, and applying the best educational practices with a focus on quality assurance and performance and enhancing them.
 Preparing specialized cadres capable of serving the community and preparing for the preparation of

future specializations. 3. Spreading the culture of diversity, writing academic research and creative scientific achievement

through activities that focus on students and teachers. 4. The college seeks to conclude scientific and cultural cooperation agreeme

4. The college seeks to conclude scientific and cultural cooperation agreements with the corresponding colleges and the corresponding departments in the various colleges to achieve the best practices in the fields of teaching, learning and translation.

5. Focusing on the educational and moral aspect of all its members and spreading the spirit of dedication, tolerance, commitment and work to serve the country.

6. Paying attention to intellectual and cultural construction through openness to the experiences of other countries in scientific fields

7. Focusing on the educational and moral aspect of the student and spreading the spirit of dedication, tolerance and commitment.

#### 4. Program Accreditation

#### 5. Other external influences

6. Program Structure										
Program Structure	Program Structure         Number of Courses         Credit hours         Percentage         Reviews*									
Institution	2			Basic						

Requirements			Course
College Requirements	Yes,		
Department Requirements	Yes,		
Summer Training			
Other			

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

7. Program Description										
Year/Level	<b>Course Code</b>	Course Name		Credit Hours						
2024-2025/3 <sup>rd</sup> stage		Cell biology	theoretical	Practical						
2024-2025/3 <sup>rd</sup> stage		Genetic	theoretical	Practical						

8. Expected learning outcomes of the program							
Knowledge							
Learning Outcomes 1	<ul> <li>Enable the student to take note of the subject of biology.</li> <li>The student should understand the nature of the genetic material and its chemical composition</li> <li>The student should understand the mechanisms of transmission and reproduction of genetic material.</li> </ul>						
Skills							
Learning Outcomes 2	Expanding the student's skill to work in laboratories and health institutions.						
Learning Outcomes 3	Learning Outcomes Statement 3						
Ethics							
Learning Outcomes 4	Developing students' abilities to participate						
Learning Outcomes 5	Ability to communicate constructively						

## 9. Teaching and Learning Strategies

Lectures, practical experiments, applications, scientific discussions

#### **10. Evaluation methods**

Weekly, monthly, daily, year-end exams and reports.

11.Faculty			
<b>Faculty Members</b>			
Academic Rank	Specialization	Special	Number of the teaching staff
		<b>Requirements/Skills</b>	

			(if applicable)				
	General	Special			Staff	Lecturer	
Assistant Professor Doctor	Biology	Cytogenetic					

#### Professional Development Mentoring new faculty members

Professional development of faculty members

#### 12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

#### 13. The most important sources of information about the program

Bolsover et al.,(2003). CELL BIOLOGY A Short Course. SECOND EDITION.
 CASARETT AND DOULL'S(2008). TOXICOLOGY. THE BASIC SCIENCE OF POISONS.
 Seventh Edition.

- Clare O'Connor, (2010). \_Essentials\_Cell\_Biology.

#### 14. Program Development Plan

	Program Skills Outline														
							Req	uired	progr	am Lo	earning	g outcon	ies		
Year/Level	Course Code	Course Name	Basic or optional	Knov	wledge			Skill	5			Ethics			
				A1	A2	A3	A4	<b>B1</b>	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	C4
2024-2025		Biological cell													
		Genetic													

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

### **Course Description Form**

1. Course Name:

Cell biology and genetic

2. Course Code:

3. Semester / Year:

Course

4. Description Preparation Date:

13/3/2025

5. Available Attendance Forms:

6. Number of Credit Hours (Total) / Number of Units (Total)

7. Course administrator's name (mention all, if more than one name)Name: Dr. Sarab Dalaf KhalafName:. Dr. Rafea Zaidan Mukhlif AlsugmianyEmail:sarab.dalaf@tu.edu.iqEmail:r-Z.mukhlif@tu.edu.iq

8. 0	Course Object	tives			
Course (	Dbjectives		- Delivering a importance of departments, some skills and with the most daily practical	general idea of lif of this course t and students are a l information that n important topics tha life.	e sciences and o non-speciali Ilso provided v nake them fami at they may fac
9. J		Learning Strategies	II . I		
Strategy		- Education strategy	collaborative	concept planni	ng.
	2	2- Brainstorming edu	cation strateg	у.	
	3	- Education Strategy	v Notes Series		
10 Cc					
10. Co	ourse Structur	e			
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1 2 3 4 5 6 7 8 9	2hours/ theoretical 3hours/ Practical	Understanding the topic of lectures With a monthly or daily exam - Familiarize students With new laboratory equipment that enables them acquire new skills information	Cell biology / 1 <sup>st</sup> course	<ul> <li>1-Explanation of the scientific material</li> <li>2- Writing and drawing illustrations on the blackboard</li> <li>3- Linking previous lectures with the current lecture.</li> </ul>	Weekly, monthly, daily, writt and end- year exams.				
10 11 12 13 14 15 1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	2hours/ theoretical 3hours/ Practical	Understanding the topic of lectures With a monthly or daily exam - Familiarize students With new laboratory equipment that enables them to acquire new skills an information	Genetic/ 2 <sup>nd</sup> course	1-Explanation of the scientific material 2- Writing and drawing illustrations on the blackboard 3- Linking previous lectures with the current lecture.	Weekly, monthly, daily, written and end- of-year exams.				
11.Co The dis degrees theoreti	11.Course Evaluation The distribution is as follows: 35 degrees monthly and daily exams for theoretical. 15 degrees monthly and daily exams for practical with reports. 50 marks for practical and theoretical final exams.								

12. Learning and Teaching Resources				
Required textbooks (curricular books, if any)	CELL BIOLOGY			
Main references (sources)				
Recommended books and references (scientific	Bolsover et al., (2003). CELL BIOLOGY A			
journals, reports)	Short Course. SECOND EDITION.			
	- CASARETT AND DOULL'S(2008).			
	TOXICOLOGY. THE BASIC SCIENCE OF			
	POISONS. Seventh Edition.			
	- Clare O'Connor,(201			
	<pre>_Essentials_Cell_Biology.</pre>			
Electronic References, Websites	https://www.researchgate.net/			

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

# **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 3/5/2024 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:**

<u>Academic Program Description</u>: 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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.

<u>Curriculum Structure:</u> 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 extracurricular activities to achieve the learning outcomes of the program.

#### **Academic Program Description Form**

University Name: .....Tikrit university ..... Faculty/Institute: .....College of science ...... Scientific Department: .....Biology ..... Academic or Professional Program Name:... Bachelor of Biology... Final Certificate Name: ..... Bachelor of Biology.... Academic System: .....Semesters ..... Description Preparation Date: 5/10/2024 File Completion Date: 2025/3/16

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

**Approval of the Dean** 

1. Program Vision

Creating a distinguished scientific base for basic sciences that meets the requirements of society and industrial institutions and fills their needs, so that the college becomes unique with a distinguished scientific personality to achieve academic standards and reach Arab and international accreditation during the next five years.

#### 2. Program Mission

Providing an advanced educational environment and developing a nucleus for scientific research capable of providing society with scientific competencies and trained specialized personnel through the introduction of the latest scientific technologies.

#### 3. Program Objectives

1- Creating awareness and belief among the graduate in the civilizational mission of our nation and its pioneering and historical role in the emergence of human scientific civilization and its scientific development.

2- Preparing the specialized graduate who is familiar with the theoretical foundations of basic sciences and their field applications.

3- Providing the graduate with the scientific expertise required by the future field of work and informing him of the latest technical developments.

4- Creating a qualified cadre to engage in the field of university education in the future and capable of advancing the educational process in the various fields of science.

5- Qualifying scientific researchers who have the correct foundations for scientific research and development to be able to support the scientific and technological research movement in the country.

6- Preparing graduates capable of absorbing and dealing with advanced modern technologies and contributing to their future development.

7- Qualifying distinguished graduates who are able to engage in postgraduate studies to contribute effectively to science to solve complex scientific and technical dilemmas to develop other scientific and technical fields.

8- Preparing scientific cadres that deal rationally with science in order to serve humanity and the environment and have an effective role in global scientific activity through their contribution to international scientific conferences.

9- Paying attention to forming the basic base for specialized postgraduate studies in the relevant departments and encouraging them to do so in order to keep pace with development.

10- Upgrading the level of technical and administrative staff to support the educational process and create new capabilities commensurate with quality requirements.

11- Diversifying sources of educational culture and linking the student's scientific concepts to the problems of the surrounding environment.

#### 4. Program Accreditation

Does the program have program accreditation? And from which agency? 12- Achieving educational goals and outcomes that meet distinguished academic standards.

13- Developing and developing the capabilities of faculty members.

14- Providing scientific services and consultations to various sectors of the state and private companies.

5.	Other external influences
No	)

6. Program Struct	6. Program Structure								
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*					
Institution Requirements	8	90		Essential					
College Requirements	Yes								
Department Requirements	Yes								
Summer Training	Yes								
Other									

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

7. Program Description								
Year/Level	Course Code	Course Name		Credit Hours				
4		Classification bacteria	theoretical	practical				

8. Expected learning outcomes of the program								
Knowledge	Knowledge							
Learning Outcomes 1	<ul><li>A1- To create an appropriate environment that promotes learning and growth and imparts the ability to work with multidisciplinary groups in professional, health and research organizations</li><li>A2- To expand and deepen their abilities in analytical and</li></ul>							

	experimental research methods, data analysis, and drawing relevant
	conclusions for scientific writing and presentation.
	A3- Introducing the student to the basic principles related to the
	science of classification bacteria and everything related to it.
Skills	
Learning Outcomes 2	B1 - Learn the ability to understand and comprehend
	B2 - Learn the ability to remember
	B3 - Learn the ability to relate and deduce
Learning Outcomes 3	Learning Outcomes Statement 3
Ethics	
Learning Outcomes 4	1-Powerpoint
C C	2- PDF
	3- Word
	4- Educational videos

#### 9. Teaching and Learning Strategies

At the end of the year, the student will be familiar with the following:

1- Introducing the student to the basic principles of bacterial classification

2- Reaching a general idea about the classification of bacteria and its importance and relationship to other sciences, and scientists' knowledge of classification and how to identify and diagnose different bacterial species.

3- The student learned about the pathological conditions that are poisoned by bacteria

4- Providing students with some skills in how to identify and diagnose different bacterial species

#### **10. Evaluation methods**

daily, monthly, exams and the end-of-semester exam.

11.Faculty							
<b>Faculty Members</b>							
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff		
	General	Special			Staff	Lecturer	
Assistant Prof	Biology	Microbiology			/		

# Professional Development Mentoring new faculty members Orienting new faculty members. Professional development of faculty members

Professional development for faculty members.

#### 12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

#### 13. The most important sources of information about the program

- Murray P.R., Rosenthal K.S., Pfaller M.A. Medical Microbiology. 8<sup>th</sup> Edition. Elsevier 2015.
- Jawetz M.& Adelberg. Medical Microbiology.28<sup>th</sup> Edition. MC Graw Hill.2019.

14.Program Development Plan Updating curricula according to recent scientific discoveries.

	Program Skills Outline														
					Required program Learning outcomes										
Year/Level	Course Code	Course Name	Basic or optional	Knowledge			Knowledge Skills			Ethics					
				A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	C4
2024/2025		Clasification bacteria	Basic												
															ļ

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

# **Course Description Form**

1. Co	ourse Name:					
Classific	ation bacteria					
2. Co	ourse Code:					
3. Se	mester / Year:					
4/8						
4. De	escription Preparation Date:					
16/03/2	025					
5. Av	vailable Attendance Forms:					
In	person only					
6. Nu	imber of Credit Hours (Total) / Nu	mber of Units (Total)				
75	hours per semester					
7. Co	ourse administrator's name (mer	ntion all, if more than one name)				
Na	ame: lina qays yaseen					
En	Email: drlina@tu.edu.ig					
	-					
8. Co	ourse Objectives					
		•				
• To understa	and the Classifications of microorganisms.	•				
• Microbiolo	gical diagnostic procedures.	•				
•The import	tance of taxonomy and its relationship with					
other science	es					
• Leann at development	t					
•Identify the	scientists contributing to the classification.					
• To make s	students open-minded and curious, we try our					
best to enhar	nce and develop a scientific attitude.					
• Etiology an	nd epidemiology of infectious diseases.					
• How to wri	ite the scientific name of a bacterium.					
Learn abou	tt classification types.					
• use the cor	rect method of collection, storage and transport					
of clinical sp	becimens for microbiological.					
•Determine	the methods and criteria adopted in the					
classification	n and diagnosis of microorganisms:					
• interpret n	nicrobiology laboratory tests for the diagnosis					
of infectious	diseases					
ropics inclu	de the study of bacteria					
9 Te	aching and Learning Strategies					
Strategy						
04	1- Educational strategy	collaborative concent planning				
	2 Drainstorming adver	, conaborative concept planning.				
	2- Brainstorning educa	ition strategy.				

	3- Education Strategy Notes Series								
10. Co	ourse Struc	cture							
Week	Hours	Required Learning Outcomes	Unit o	r subject name	Learning method	Evaluation method			
1 2 3 4 5 6 7 8 9 10 11 12 13 14	1221- Providing3students with4analysis skills.52- Informing6students about7the most8important mode9sources in the10field of11classification12bacteria1314			Classification bacteria	1-Learn the ability to understand and assimilar 2- Learn the ability to remember 3- Learn t ability connect a deduce	daily, monthly, written a end-of- semester exams.			
The dist	tribution is	as follows: 25 marl	ks for r	nonthly and daily	v exams for the s	semester. 50			
12.Le	arning and	d Teaching Resour	ces						
Require	d textbooks	(curricular books, if a	any)	Jawetz M.&	Adelberg. Me	dical			
				Microbiology.28 <sup>th</sup> Edition. MC Graw Hill.2019.					
Main references (sources)				Murray P.R., Rosenthal K.S., Pfaller M.A. Medical Microbiology. 8 <sup>th</sup> Edition. Elsevier 2015.					
Recommended books and references (scientific journals, reports)				Jawetz M.& Microbiology.2 Graw Hill.2019	Adelberg. Me 28 <sup>th</sup> Edition. 9.	dical MC			

Electronic References, Websites	https://www.researchgate.net/

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

# **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 3/5/2024 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:**

<u>Academic Program Description</u>: 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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.

<u>Curriculum Structure:</u> 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 extracurricular activities to achieve the learning outcomes of the program.

#### **Academic Program Description Form**

University Name: .....Tikrit university ..... Faculty/Institute: ......College of science ...... Scientific Department: ......Biology ...... Academic or Professional Program Name:... Bachelor of Biology... Final Certificate Name: ..... Bachelor of Biology.... Academic System: ......Semesters ...... Description Preparation Date: 5/10/2024 File Completion Date: 2025/03/15

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

#### 1. Program Vision

Creating a distinguished scientific base for basic sciences that meets the requirements of society and industrial institutions and fills their needs, so that the college becomes unique with a distinguished scientific personality to achieve academic standards and reach Arab and international accreditation during the next five years.

#### 2. Program Mission

Providing an advanced educational environment and developing a nucleus for scientific research capable of providing society with scientific competencies and trained specialized personnel through the introduction of the latest scientific technologies.

#### 3. Program Objectives

1- Creating awareness and belief among the graduate in the civilizational mission of our nation and its pioneering and historical role in the emergence of human scientific civilization and its scientific development.

2- Preparing the specialized graduate who is familiar with the theoretical foundations of basic sciences and their field applications.

3- Providing the graduate with the scientific expertise required by the future field of work and informing him of the latest technical developments.

4- Creating a qualified cadre to engage in the field of university education in the future and capable of advancing the educational process in the various fields of science.

5- Qualifying scientific researchers who have the correct foundations for scientific research and development to be able to support the scientific and technological research movement in the country.

6- Preparing graduates capable of absorbing and dealing with advanced modern technologies and contributing to their future development.

7- Qualifying distinguished graduates who are able to engage in postgraduate studies to contribute effectively to science to solve complex scientific and technical dilemmas to develop other scientific and technical fields.

8- Preparing scientific cadres that deal rationally with science in order to serve humanity and the environment and have an effective role in global scientific activity through their contribution to international scientific conferences.

9- Paying attention to forming the basic base for specialized postgraduate studies in the relevant departments and encouraging them to do so in order to keep pace with development.

10- Upgrading the level of technical and administrative staff to support the educational process and create new capabilities commensurate with quality

requirements.

11- Diversifying sources of educational culture and linking the student's scientific concepts to the problems of the surrounding environment.

#### 4. Program Accreditation

Does the program have program accreditation? And from which agency?

12- Achieving educational goals and outcomes that meet distinguished academic standards.

13- Developing and developing the capabilities of faculty members.

14- Providing scientific services and consultations to various sectors of the state and private companies.

5. Other external influences	S
------------------------------	---

no

6. Program Structure									
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*					
Institution Requirements	3	90		Essential					
College Requirements	Yes								
Department Requirements	Yes								
Summer Training	Yes								
Other									

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

7. Program Description									
Year/Level	Course Code	Credit Hours							
4	Comparative anatomy		theoretical	practical					
				3					

8. Expected learning outcomes of the program						
Knowledge						
Learning Outcomes 1	A1- To create an appropriate environment that promotes learning and growth and imparts the ability to work with multidisciplinary groups					

	<ul> <li>in professional, health and research organizations</li> <li>A2- To expand and deepen their abilities in analytical and experimental research methods, data analysis, and drawing relevant conclusions for scientific writing and presentation.</li> <li>A3- Introducing the student to the basic principles related to the science of histology and to take note of the scientific terms in Comparative anatomy and their meanings .</li> <li>A4 - To take note of the scientific terms in comparative anatomy and their meanings.</li> </ul>
Skills	
Learning Outcomes 2	<ul> <li>B1 - Learn the ability to understand and comprehend</li> <li>B2 - Learn the ability to remember</li> <li>B3 - Learn the ability to relate and deduce</li> <li>B4 - The student's knowledge of the most important phenotypic and anatomical characteristics through the similarities and differences between various types of vertebrate organisms such as mammals, birds, and fish, and providing the student with the necessary skill to study the anatomical characteristics of various organisms.</li> <li>B5 - Enabling students to analyze reality from a scientific perspective.</li> </ul>
Learning Outcomes 3	Learning Outcomes Statement 3
	<ul><li>B4 - The student's knowledge of the concept of histology.</li><li>B5 - Enabling students to analyze reality from a scientific perspective.</li></ul>
Ethics	
Learning Outcomes 4	<ul> <li>1-Powerpoint</li> <li>2- PDF</li> <li>3- Word</li> <li>4- Educational videos</li> <li>5. Slides</li> <li>6. Practical lectures</li> <li>7. Sculptures</li> </ul>

#### 9. Teaching and Learning Strategies

At the end of the year, the student will be familiar with the following:

1- Introducing the student to the basic principles related to Comparative anatomy.

2- - The teaching of this course aims to cover topics in theoretical foundations that include the process Which includes the process of identifying the most important

phenotypic and anatomical characteristics through the similarities and differences between various types of vertebrate organisms such as mammals, birds, and fish, and providing the student with the necessary skill to study the anatomical

characteristics of various organisms.

3 - The student gets to know the Appearance and anatomical characteristics of various organisms and their classification.

4- Giving the student an expanded and modern idea about the Comparative anatomy and knowing the similarities and differences between different types of

vertebrate organisms.

#### **10. Evaluation methods**

1) Monthly exams.

2) Daily exams.

3) Oral questions during the lecture that rely on brainstorming

4) Duties

5) Reports.

11.Faculty							
<b>Faculty Members</b>							
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff		
	General	Special			Staff	Lecturer	
assistant teacher	Biology	Comparative anatomy			/		

Professional Development
Mentoring new faculty members
Orienting new faculty members.
Professional development of faculty members
Professional development for faculty members.

#### 12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program							
1 - Required prescribed books	Basics of comparative anatomy of chordates,						
2- Main references (sources)	Books and research published by Iraqi universities and reputable international universities.						
A-Recommended books and references (scientific journals, reports,)	Basics of comparative anatomy of vertebrates						
B - Electronic references, Internet sites	Electronic virtual library, solid references from the Internet						

#### 14.Program Development Plan

Updating curricula according to recent scientific discoveries.

Program Skills Outline															
					Required program Learning outcomes										
Year/Level	Course Code	Course Name	Basic or optional	Knowledge		Skills				Ethics					
			-	A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	C4
2024/2025		Practical comparative anatomy	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.
# **Course Description Form**

1. Course	Name:	
Practical comr	narative anatomy	
2 Course	Code:	
2. course	60uc.	
3. Semest	er / Year:	
4/8		
4. Descrip	otion Preparation Date:	
15/03/2025		
5. Availab	le Attendance Forms:	
In perso	on only	
6. Number	r of Credit Hours (Total) / Nu	mber of Units (Total)
45 hour	rs per semester	
7. Course	e administrator's name (mer	ntion all, if more than one name)
Name: I	Lamvaa khames naeif	
Email: I	Lamvaa.m.khames@tu.edu.j	a
8. Course	Objectives	<u>d</u>
At the end of the	year, the student will be familiar wi	•
the following:	-	•
1- Introducing th	e student to the basic principles	•
related to Practica 2 The teaching	al comparative anatomy ing of this course aims to cover	
topics in theoret	tical foundations that include It	
includes ident	ifying the most important	
phenotypic an	anatomical characteristics	
through the simi	ilarities and differences between	
various types of	of vertebrate organisms such as	
mammals, birds	s, and fish, and providing the	
student with the	e necessary skill to study the	
anatomical chara	acteristics of various organisms.	
3 - The student g	gets to know the Practical	
comparative anato	billy	
9. Teachin	g and Learning Strategies	
Strategy		
	1- Educational strategy	, collaborative concept planning.
	2- Brainstorming educa	ation strategy.
	3- Education Strategy N	lotes Series
II		

10 0					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	3	Study the parts of the microscope and how to view samples	The concept of comparative anatomy	My attendance +PDF Power point	Daily and weekly tests and reports
2	3	Understanding the topic of the lecture and introducing students to new laboratory equipment that enables them to acquire new skills and information	Classification of the phylum Chordata	My attendance +PDF Power point	Daily and weekly and reports
3	3	Understand the lectur topic	Classification of protochordates	My attendance +PDF Power point	Daily and weekly and reports
4	3	Understand lecture topic	Secondary cephalochord division	My attendance +PDF Power point	Daily and weekly and reports
5	3	Understand the lectur topic	Vertebrate or secondary cranial division	My attendance +PDF Power point	Daily and weekly and reports
6	3	Understand the lectur topic	Classification of cartilaginous fish	My attendance +PDF Power point	Daily and weekly and reports
7	3	Understand the lectur topic	Classification of bony fish	My attendance +PDF Power point	Daily and weekly and reports

					1	I
8	3	Monthly exam	Month	nly exam	My attendance	Daily and weekly and reports
					Power point	una reporto
9	3	Understand the lectur			My attendance	Daily and weekly
		topic	Classi	fy birds	+PDF Power point	and reports
		** 1 1 1 1			Tower point	<b>D H H H</b>
10	3	Understand the lectur	Class	ofomphihiona	My attendance +PDF	Daily and weekly and reports
		topic	Class	or ampinorans	Power point	
11	3	Understand the lectur			My attendance	Daily and weekly
11	U	topic	Class	of reptiles	+PDF	and reports
					Power point	
12	3	Understand the lectur			My attendance	Daily and weekly
12	5	topic	The cu	utaneous	+PDF	and reports
					Power point	
13	3	Understand the lect			My attendance	Daily and weekly
		topic	system	n of vertebrates	Power point	unu reporto
11	2	Understand the lect			My attendance	Daily and weekly
14	5	topic	Skelet	al system	+PDF	and reports
		-		5	Power point	
15	3	Monthly exam	Month	nly exam	My attendance	Daily and weekly
					+PDF Power point	and reports
11.Co	ourse Eval	uation				
The dis	tribution is	as follows: 25 marl	ks for 1	nonthly and da	ily exams for th	e semester. 50
marks f	or final exa	ms				
12.Le	arning and	d Teaching Resour	ces	1		
Basics	of compar	ative anatomy of		1 - Required pr	escribed books	
chorda	tes,					
Books	and resear	ch published by Ir	aqi	2- Main referen	nces (sources)	
univers	universities and reputable international					
univers	ities.	1				
Basics of comparative anatomy of			A-Recommend	ded books and re	ferences	
vertebr	ates	j •1		(scientific journ	nals, reports,)	
Electron	Electronic virtual library, solid references from			B - Electronic 1	references, Intern	net sites
the Inter	met					
				1		



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

# **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 3/5/2024 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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: .....Tikrit university ..... Faculty/Institute: ......College of science ...... Scientific Department: ......Biology ...... Academic or Professional Program Name:... Bachelor of Biology... Final Certificate Name: ..... Bachelor of Biology.... Academic System: ......Semesters ...... Description Preparation Date: 5/10/2024 File Completion Date: 2025/03/15

Signature: Head of Department Name: Dr: Ayman Adwan Abid Date: Signature: Scientific Associate Name: Dr: Firas Faris Rija Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

**Approval of the Dean** 

## 1. Program Vision

Creating a distinguished scientific base for basic sciences that meets the requirements of society and industrial institutions and fills their needs, so that the college becomes unique with a distinguished scientific personality to achieve academic standards and reach Arab and international accreditation during the next five years.

# 2. Program Mission

Providing an advanced educational environment and developing a nucleus for scientific research capable of providing society with scientific competencies and trained specialized personnel through the introduction of the latest scientific technologies.

# 3. Program Objectives

1- Creating awareness and belief among the graduate in the civilizational mission of our nation and its pioneering and historical role in the emergence of human scientific civilization and its scientific development.

2- Preparing the specialized graduate who is familiar with the theoretical foundations of basic sciences and their field applications.

3- Providing the graduate with the scientific expertise required by the future field of work and informing him of the latest technical developments.

4- Creating a qualified cadre to engage in the field of university education in the future and capable of advancing the educational process in the various fields of science.

5- Qualifying scientific researchers who have the correct foundations for scientific research and development to be able to support the scientific and technological research movement in the country.

6- Preparing graduates capable of absorbing and dealing with advanced modern technologies and contributing to their future development.

7- Qualifying distinguished graduates who are able to engage in postgraduate studies to contribute effectively to science to solve complex scientific and technical dilemmas to develop other scientific and technical fields.

8- Preparing scientific cadres that deal rationally with science in order to serve humanity and the environment and have an effective role in global scientific activity through their contribution to international scientific conferences.

9- Paying attention to forming the basic base for specialized postgraduate studies in the relevant departments and encouraging them to do so in order to keep pace with development. 10- Upgrading the level of technical and administrative staff to support the educational process and create new capabilities commensurate with quality requirements.

11- Diversifying sources of educational culture and linking the student's scientific concepts to the problems of the surrounding environment.

# 4. Program Accreditation

Does the program have program accreditation? And from which agency? 12- Achieving educational goals and outcomes that meet distinguished academic standards.

13- Developing and developing the capabilities of faculty members.

14- Providing scientific services and consultations to various sectors of the state and private companies.

# 5. Other external influences

Teaching aids and PowerPoint

6. Program Structure									
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*					
Institution Requirements	90	3		Essential					
College Requirements	Yes								
Department Requirements	Yes								
Summer Training	Yes								
Other									

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

7. Program Description									
Year/Level	Course Code	Course Name		Credit Hours					
2024/2025		Medical Mycology	theoretical	practical					
fourth									
			2 hours	3 hours					

8. Expected learning outcomes of the program Knowledge

Learning Outcomes 1	<ul> <li>A1- To create an appropriate environment that promotes learning and growth and imparts the ability to work with multidisciplinary groups in professional, health and research organizations</li> <li>A2- To expand and deepen their abilities in analytical and experimental research methods, data analysis, and drawing relevant conclusions for scientific writing and presentation.</li> <li>A3- Introducing the student to the basic principles related to the science of Phytopathology and everything related to it.</li> </ul>
Skills	
Learning Outcomes 2	B1 - Learn the ability to understand and comprehend
	B2 - Learn the ability to remember
	B3 - Learn the ability to relate and deduce
Learning Outcomes 3	Learning Outcomes Statement 3
Ethics	
Learning Outcomes 4	1-Powerpoint
-	2-PDF
	3- Word
	4- Educational videos

# 9. Teaching and Learning Strategies

At the end of the year, the student will be familiar with the following:

1- Introducing the student to the basic principles related to medical mycology

2- - The teaching of this course aims to cover topics in theoretical foundations that include the process of mechanisms for the occurrence of fungal disease , the disorders that occur, and the diseases resulting from these disorders.

3 - The student gets to know the natural forms

4- Giving the student an expanded and modern idea about the science of medical mycology and the changes that occur when infected with various diseases.

# **10. Evaluation methods**

Weekly, monthly, daily exams and the end-of-semester exam.

11.Faculty						
<b>Faculty Members</b>						
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Assistant lecturer	Biology	Mycology			/	
Assistant lecturer	biology	mycology			/	

**Professional Development** 

Mentoring new faculty members

Orienting new faculty members.

Professional development of faculty members

Professional development for faculty members.

# 12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

# 13. The most important sources of information about the program

-Main references in mycology and fungal diseases / books and research published from Iraqi universities and international universities.

- Recommended books and references / General Mycology

- Electronic review/internet sites/virtual library.

14. Program Development Plan

Updating curricula according to recent scientific discoveries.

	Program Skills Outline														
						Required program Learning outcomes									
Year/Level	Year/Level Course Course Nam Code		CourseCourse NameBasic orKCodeoptional	Knov	wledge			Skill	5			Ethics			
				A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	C4
2024/2025		Medical mycology	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

# **Course Description Form**

1. Cou	rse Nan	ne:			
Medical n	nycolog	V			
2. Cou	rse Cod	e:			
3. Sem	nester /	Year:			
Semester/	2024-20	)25			
4. Des	cription	Preparation I	Date:		
15/03/202	25				
5. Ava	ilable A	ttendance Forn	ns:		
In p	erson o	nly			
6. Nun	nber of (	Credit Hours (7	Total) / Number of	Units (Total)	
45 ł	nours pe	er semester			
7. Cou	irse adı	ministrator's n	ame (mention all	, if more than on	e name)
Nan	ne: Noo	r Adnan Abdul	llah		
<u>no</u>	<u>or.adna</u>	nabdullah23@	tu.edu.iq		
8. Cou	rse Obje	ectives			
At the end of	f the year,	, the student will b	e familiar with the	•	
1- Introducii	ng the stu	dent to the basic p	principles related to	•	
medical myc	ology	•	L		
2 The teac	hing of th	is course aims to c	cover topics the process		
mechanisms mycology co	nditions.	the disorders that	occur. and the diseases		
resulting from	m these d	isorders.	······ , ····· ···· ···· ·····		
3 - The stude	ent gets to	know the concep	t of diseases and pract		
fungi and the	e ability to	o solve problems.	d modern idee shout		
science of m	nedical m	vcology and the	changes that occur w		
infected with	n various o	diseases.	0		
9. Tead	ching an	d Learning Stra	ategies		
Strategy					
		1- Educati	onal strategy, coll	aborative concep	t planning.
		2- Brainsto	orming education	strategy.	
		3- Educati	on Strategy Notes	Series	
10. Cours	e Struct	ure			
Week	Hours	Required	Unit or subject	Learning	Evaluation
		Dutcomos	name	method	method
		Outcomes			

	2		N / 1·	1 1	<b>4 I . 1</b>	TA7 11	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	<ol> <li>Providing students with analysis skills.</li> <li>Informing students about the most important modern sources the field of medical mycology</li> </ol>	Medic	al mycology	1-Learn the ability to understand and assimila 2- Learn the ability to remember 3- Learn the ability connect and deduce	Weekly, monthly, daily, written and end-of- semester exams.	
11.Cours	e Evalu	ation					
The distrib	ution is a	as follows: 25 marks	for mor	thly and daily	exams for the s	semester. 50	
marks for f	inal exam	15 Taaahing Dagaynaa					
Required tex	nng and xtbooks (/	curricular books if an	28 V)	/			
Main refere	nces (sou	rces)	y)	/			
				and fungal diseases / books			
				and researc	ch published fi	rom	
			Iraqi univer	sities and			
				internation	al universities	5	
Recommend	led book	s and references (sc	eientific	Electronic v	view/internet	sites/	
journals, rep	oorts)			virtual libra	ary.		
Electronic R	References	s, Websites		http://www.	magaamah asta a	aat/	
				<u>nups://www</u>	.researchgate.i	<u>101/</u>	

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

# **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 3/5/2024 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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: ......University of Tikrit...... Faculty/Institute: .....College of Science..... Scientific Department: .....Biology..... Academic or Professional Program Name: ..... Bachelor of Biology Final Certificate Name: ..... Bachelor of Biology...... Academic System: ....Semester...... Description Preparation Date: File Completion Date: 17/3/2025

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

**Approval of the Dean** 

#### 1. Program Vision

Ensuring that the actual need for teaching staff is fulfilled through appointment and transfer in computer specializations and some mathematics specializations. Urging teachers to complete scientific research in the field of specialization. Raising the academic and scientific level of college students and involving the

teaching staff in development courses inside and outside the country. Involving technical and administrative staff in development courses, one course during the academic year.

## 2. Program Mission

Providing an advanced educational environment and establishing a nucleus for scientific research capable of providing society with scientific competencies and trained specialized personnel through the introduction of the latest scientific technologies.

# 3. Program Objectives

General statements describing what the program or institution intends to achieve.

# 4. **Program Accreditation**

N/A

# 5. Other external influences

N/A

6. Program Structure									
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*					
Institution Requirements	15	2		Secondary					
<b>College Requirements</b>	Yes								
Department Requirements	Yes								
Summer Training	N/A								
Other									

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

7. Program Description									
Year/Level	Course Code	Course Name	(	Credit Hours					
2024-2025/ Third			theoretical	practical					
			2						

8. Expected learning	8. Expected learning outcomes of the program								
Knowledge									
understanding	The students should be able to understand the academic program and express it in his own language and words.								
Skills									
Reading	The students should be able to read correctly and spell the word in the right way								
Basic grammar	The students should be able to produce correct sentence with correct grammar.								
Ethics									
Sharing thoughts	Enhance the students ability to share thoughts.								

## 9. Teaching and Learning Strategies

Explain and discuss the scientific material related to tenses in language. Enhance the student's ability to write by doing homework and paraphrasing some paragraph. Encourage the students to make a conversation among them from their daily life.

# **10. Evaluation methods**

Weekly, dailly, monthly, yearly.

11.Faculty							
<b>Faculty Members</b>							
Academic Rank	Specializatio	on	Special Requirement (if applicable)	s/Skills )	Number of the teaching staff		
	General	Special			Staff	Lecturer	
Assistant lecturer	Translation	Translation			Staff	Lecturer	

#### **Professional Development**

#### Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

#### Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

# **12.Acceptance Criterion**

5

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

# 13. The most important sources of information about the program

Sources adopted by the ministry of higher education and scientific research.

14. Program Development Plan

Providing a set of advice and guidance that is in the student's interest to develop his skills, including teamwork, the spirit of cooperation, time management, and setting priorities.

	Program Skills Outline														
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge		Knowledge S		Skill	Skills			Ethics			
				A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	C2	<b>C</b> 3	C4
2024-2025		English language		*	*	*	*	*	*	*	*	*	*	*	*
															<b>_</b>
															ļ

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

# **Course Description Form**

1. Course Name:

English language

2. Course Code:

3. Semester / Year:

Semester

4. Description Preparation Date:

17/3/2025

5. Available Attendance Forms:

In Person only

# 6. Number of Credit Hours (Total) / Number of Units (Total)

2 hours weekly

7. Course administrator's name (mention all, if more than one name) Name: Assistant lecturer Omar Ali SALEH Email: omar.saleh122@tu.edu.iq

8. Course Objectives

 Comprehension and understanding: The student has understood the scientific materiand expressed it in his own style and language.
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •
 •

9. Teaching and Learning Strategies

StrategyExplain and discuss the scientific material related to tenses<br/>language. Enhance the student's ability to write by doing homewor<br/>and paraphrasing some paragraph. Encourage the students to ma<br/>a conversation among them from their daily life.

# 10. Course Structure

10. 00												
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method							

11.Course Evaluation							
Distributing the score out of 100 according to the tasks assigned to the student such as daily							
preparation, daily oral, monthly, or written exams, reports etc							
12.Learning and Teaching Resources							
Required textbooks (curricular books, if any)							
Main references (sources)							
Recommended books and references (scientific							
journals, reports)							
Electronic References, Websites							

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

# 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.

1

# **Concepts and terminology:**

<u>Academic Program Description</u>: 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.

<u>Course Description</u>: 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.

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

**<u>Program Mission</u>**: 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.

<u>Teaching and learning strategies</u>: 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.

3

# Academic Program Description Form

University Name: .....Tikrit university ..... Faculty/Institute: .....College of science ...... Scientific Department: .....Biology ..... Academic or Professional Program Name:... Bachelor of Biology... Final Certificate Name: .....Bachelor of Biology.... Academic System: .....Semesters ..... Description Preparation Date: 5/10/2024 File Completion Date: 14/2/2025

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

Approval of the Dean

## 1. Program Vision

Creating a distinguished scientific base for basic sciences that meets the requirements of society and industrial institutions and fills their needs, so that the college becomes unique with a distinguished scientific personality to achieve academic standards and reach Arab and international accreditation during the next five years.

## 2. Program Mission

Providing an advanced educational environment and developing a nucleus for scientific research capable of providing society with scientific competencies and trained specialized personnel through the introduction of the latest scientific technologies.

# 3. Program Objectives

1– Creating awareness and belief among the graduate in the civilizational mission of our nation and its pioneering and historical role in the emergence of human scientific civilization and its scientific development.

2– Preparing the specialized graduate who is familiar with the theoretical foundations of basic sciences and their field applications.

3– Providing the graduate with the scientific expertise required by the future field of work and informing him of the latest technical developments.

4– Creating a qualified cadre to engage in the field of university education in the future and capable of advancing the educational process in the various fields of science.

5– Qualifying scientific researchers who have the correct foundations for scientific research and development to be able to support the scientific and technological research movement in the country.

6– Preparing graduates capable of absorbing and dealing with advanced modern technologies and contributing to their future development.

7– Qualifying distinguished graduates who are able to engage in postgraduate studies to contribute effectively to science to solve complex scientific and technical dilemmas to develop other scientific and technical fields.

8– Preparing scientific cadres that deal rationally with science in order to serve humanity and the environment and have an effective role in global scientific activity through their contribution to international scientific conferences.

9- Paying attention to forming the basic base for specialized postgraduate studies in the relevant departments and encouraging them to do so in order to keep pace with development.

10– Upgrading the level of technical and administrative staff to support the educational process and create new capabilities commensurate with quality requirements.

11– Diversifying sources of educational culture and linking the student's scientific concepts to the problems of the surrounding environment.

# 4. Program Accreditation

Does the program have program accreditation? And from which agency?

12- Achieving educational goals and outcomes that meet distinguished academic standards.

13- Developing and developing the capabilities of faculty members.

14– Providing scientific services and consultations to various sectors of the state and private companies.

#### 5. Other external influences

no

6. Program Structure												
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*								
Institution Requirements	8	90		Essential								
College Requirements	Yes											
Department Requirements	Yes											
Summer Training	Yes											
Other												

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

7. Program Description											
Year/Level	Course Code	Course Name		Credit Hours							
4		Pathological analysis	theoretical	practical							

8. Expected learning outcomes of the program								
Knowledge								
Learning Outcomes 1	A1- To create an appropriate environment that promotes learning							
	and growth and imparts the ability to work with multidisciplinary							
	groups in professional, health and research organizations							
	A2- To expand and deepen their abilities in analytical and							
	experimental research methods, data analysis, and drawing relevant							
	conclusions for scientific writing and presentation.							
	A3- Introducing the student to the basic principles related to the							
	science of pathological analysis and everything related to it.							
Skills								
Learning Outcomes 2	B1 – Learn the ability to understand and comprehend							
	B2 – Learn the ability to remember							
	B3 – Learn the ability to relate and deduce							
Learning Outcomes 3	Learning Outcomes Statement 3							

7

Ethics							
Learning Outcomes 4	1-Powerpoint						
	2- PDF						
	3- Word						
	4- Educational videos						

## 9. Teaching and Learning Strategies

At the end of the year, the student will be familiar with the following:

1– Introducing the student to the basic principles related to pathological analyses 2– – The teaching of this course aims to cover topics in theoretical foundations that include the process of mechanisms for the occurrence of pathological conditions, the disorders that occur, and the diseases resulting from these disorders.

3 – The student gets to know the natural forms and pathological conditions, as well as the student's knowledge of normal and abnormal values (pathological conditions), as well as teaching the student the pathological conditions that lead to an increase or decrease in these values.

4– Giving the student an expanded and modern idea about the science of pathological analyzes and the normal and abnormal ranges, in addition to the changes that occur when infected with various diseases.

# 10. Evaluation methods

Weekly, monthly, daily exams and the end-of-semester exam.

11. Faculty			
Faculty Members			
Academic Rank	Specialization	Special Requirements/Skills	Number of the teaching staff

			(if applicable)	)			
	General	Special			Staff	Lecturer	
Assistant Prof	Biology	Pathophysiology			/		

#### **Professional Development**

Mentoring new faculty members

Orienting new faculty members.

#### Professional development of faculty members

Professional development for faculty members.

# 12. Acceptance Criterion

\_

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

# 13. The most important sources of information about the program

Clinical laboratory Science review – 4<sup>th</sup> edition

- Clinical biochemistry and metabolic medicine – 8 edition – Martin Andrew crook

# 14. Program Development Plan

Updating curricula according to recent scientific discoveries.

	Program Skills Outline														
		Re					Requ	quired program Learning outcomes							
Year/Level	Course Code	Course Name	Basic or	Know	vledge		Skills				Ethics				
			optional	A1	A2	A3	A4	B1	B2	<b>B3</b>	<b>B4</b>	C1	C2	С3	C4
2023/2024		Pathologic al analysis	Basic												
															ļ
															ļ

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.
# **Course Description Form**

1. Course Name:

### Pathological analysis

2. Course Code:

## 3. Semester / Year:

4/8

## 4. Description Preparation Date:

14/02/2024

5. Available Attendance Forms:

In person only

- 6. Number of Credit Hours (Total) / Number of Units (Total)75 hours per semester
- 7. Course administrator's name (mention all, if more than one name) Name: firas faris rija Email: <u>firas tucon@tu.edu.iq</u>

### 8. Course Objectives

At the end of the year, the student will be familiar	•	•••••
with the following:	•	
1- Introducing the student to the basic principles	•	
related to pathological analyses		
2 The teaching of this course aims to cover top		
in theoretical foundations that include the process		
mechanisms for the occurrence of pathological		
conditions, the disorders that occur, and the disea		
resulting from these disorders.		
3 – The student gets to know the natural forms and		
pathological conditions, as well as the student's		
knowledge of normal and abnormal values		
(pathological conditions), as well as teaching the		
student the pathological conditions that lead to an		
increase or decrease in these values.		
4– Giving the student an expanded and modern i		

about th	ne scie	nce	of pathological analy	zes an	d			
normal	and a	bnori	nal ranges, in add	lition to				
changes that occur when infected with varie								
diseases	<b>i</b> .							
9. Teaching and Learning Strategies								
Strategy		<ol> <li>1- Educational strategy, collaborative concept planning.</li> <li>2- Brainstorming education strategy.</li> <li>3- Education Strategy Notes Series</li> </ol>						
10. Co	ourse	Struc	cture					
Week	Hours	5	Required	Unit o	r subject	Learning	Evaluation	
			Learning	name		method	method	
			Outcomes					
1 2 3 4 5 6 7 8 9 10 11 12 13 14	2		1- Providing students with analysis skills. 2- Informing students about the most important mode sources in the field of pathological analyses.		Pathological analysis	1-Learn the ability to understand and assimila 2- Learn the ability to remember 3- Learn t ability connect a deduce	Weekly, monthly, da written a end-of- semester exams.	
11. 0	Course	e Eva	aluation					
The dist marks fo	tributi or fina	on is l exa	as follows: 25 marl ms	ks for m	nonthly and dai	ly exams for the	e semester. 50	
12. L	earni	ng a	nd Teaching Reso	ources				
Required textbooks (curricular books, if any)			Clinical laboratory Science review 4 <sup>th</sup> edition					
Main references (sources)			Clinical biochemistry and metabo medicine – 8 edition – Mar					

Recommended books and references (scientific journals, reports)	Andrew crook Clinical laboratory Science review 4 <sup>th</sup> edition	
Electronic References, Websites	https://www.researchgate.net/	