



# Developmental Evaluation Project



**BIOLOGY PROGRAM**

Deanship of quality and skills development

Faculty of Education Majmaah

## Developmental Evaluation Project

### Commission of programmatic context

(part I)

Faculty of Education Majmaah

Modified models / **Biology program**

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# Consistency Matrix between the mission of the university and the mission of the college

College:- Faculty of Education Majmaah

Academic department :- **Biology**

The program:- **Biology**

The mission of University Majmaa'h University offers advanced educational and research services through Academy system which is able to competitive in the context of professional responsibility and effective community partnership					key words for the mission of university
Society partnership	Professional responsibility	Academy competitive	Advanced research services	Advanced educational services	
x	x	x			Preparing for qualified scientifically , educationally and professionally graduation
				x	providing advanced educational programs
		x			build the academy system which able to compete in the scientific and educational field
			x		providing a research and educational services
x					Community service
					Preparing for scientifically , educationally and professionally qualified . by providing advanced educational programs; to build the academy system which able to compete in scientific and educational field, and also provide research and educational services to the community

## The current mission of the College

Preparing a qualified scientifically , educationally and professionally graduations by providing advanced educational

programs; to build the academy system which able to compete in the scientific and educational field, and providing a research and educational services to the community

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## Consistency Matrix between the mission of the college and the mission of the program

College:- Faculty of Education in Majmaah

Academic department :- **Biology**

The program:- **Biology**

The mission of the College Preparing a qualified scientifically , educationally and professionally graduations by providing advanced educational programs; to build the academy system which able to compete in the scientific and educational field, and providing a research and educational services to the community					Key words of the mission of the college
Society service	providing a research and educational services	build the academy system which able to compete in the scientific and educational field	providing advanced educational programs	Preparing a qualified scientifically , educationally and professionally graduations	
				×	Preparing a new generation of qualified graduates
			×	×	equipped with scientific and practical knowledge
×		×			to meet the needs and requirements of the working market
	×				Contribute to conduct research in biology field.
×	×				Society development

Preparing a new generation of qualified graduates and d that equipped with scientific and practical knowledge to meet the needs and requirements of the working market and contribute to conduct research in the field of biology to develop the society

The current mission of the program

- 1- Biology Department , Faculty of Education in Majmaah prepared a new generation of graduates that they're scientifically and cognitively qualified in the field of biology to meet the needs and requirements of the working market
- 2- Biology Department contributes in developing society through presenting scientific and practical knowledge and also provides advisory and training services
- 3- Biology Department contributes in conducting studies and scientific research to support the profession and the community.

### The mission of the program Modifying

prepared a new generation of qualified graduates with scientific and practical knowledge to meet the doing research contributes in developing society needs and requirements of the working market and in biology field.

## Consistency Matrix between the mission of the program and the objectives of the program

College:- Faculty of Education in Majmaah  
Academic department :- Biology

The program:- **Biology**

<b>Mission of the program</b>					Key words	
Society development	to meet the needs and requirements of the working .market	to meet the needs and requirements of the working .market	equipped with scientific and practical knowledge	Preparing a new generation of qualified graduates		
			x	x	Second objective	
	x		x		Third objective	
x	x	x	x		Fourth objective	

### Objectives of the program:-

Graduating qualified students for creative thinking to teach biology in the various stages of education	<b>1</b>
Developing communication skills and creativity for graduates students in the research process and self-learning by using information technology	<b>2</b>
Presenting principles and professional ethics in Biology teaching .	<b>3</b>
Helping graduate to identify the scientific concepts and results of studies on all living organisms and environmental studies in all areas of the kingdom	<b>4</b>

**Mission and objectives of the program**  
**College:- college of education in Majmaah Academic**  
**department :- Biology**

**The program:- Biology**

**Mission of the program**

prepared a new generation of qualified graduates with scientific and practical knowledge to meet the needs and requirements of the working market and contributes in developing society doing research in biology field to develop

**2- Goals of the program :-**

1- built research laboratories on high quality and specialized devices to be available for serve the community in the areas of research fields .

2-Preparing scientific graduates specialized in the field of biological sciences scientific in high studies that competes with local and international .universities

**The main objectives that achieve the program mission , its performance measurable indicators and main strategies that achieve it :-**

<b>main strategies</b>	<b>performance measurable indicators</b>	<b>Main objectives</b>
<p>1- developing the study plan                      2- attracting elite group of faculty members                      3- held community partnership with employers</p>	<p>Proficient in creative thinking skills in biological sciences field.                      1- The proportion of employment satisfaction for graduates of the program (points of not less than 80%)                      2- A report from external advisory Committee</p>	<p>1- Graduating a qualified students with creative thinking to teach biology in the various stages of education</p>
<p>1- put special programs for talented and featured students                      2- exchange experiences among Saudi students in biology field .                      3- using modern technologies in teaching .</p>	<p>1- The proportion of employment satisfaction for graduates of the program (points of not less than 80%)                      2- A report from external advisory Committee</p>	<p>Developing communication skills and creativity for graduates students in research process and self-learning using information technology</p>
<p>1- Preparing a code of ethics for teaching Biology profession .                      2- hold regular seminars for students to consolidate the professional principles and ethics</p>	<p>1- Commitment to the principles and professional ethics .                      The proportion of - employment satisfaction for graduates ethics of the program (points of not less than 80%)                      2- A report from external advisory Committee</p>	<p>Presenting principles and professional ethics in teaching biology</p>
<p>1. Providing a security in learning environment that is good for research study is valid in Biology field .                      2. Organizing the scientific forum of the sectors in in Biology field .</p>	<p>1- Knowledge of the results of various studies in the field                      2- The proportion of students' satisfaction for laboratories, facilities of the program (points of not less than 80%)                      3- A report from external advisory Committee</p>	<p>- Helping the graduate to identify the scientific concepts and results of studies on all living organisms and environmental studies in the areas of the kingdom</p>

## Consistency Matrix between learning outcomes and program objectives

College:- college of education in Majmaah

Academic department :- **Biology**

The program:- Biology

objectives of the program						Learning outcomes	
Objective (4)	Objective (3)	Objective (2)	Objective (1)				
							A
							B
							C
						D	
						E	

(A) Knowledge , (B) Cognitive skills , (C) Dealing with others skills and the ability to take responsibility , (D) communication skills , information technology and numerical skills (E) Self-kinetic skills



## Outcomes of the program :-

Outcomes	code	area
Collect integrated comprehensive knowledge of the basic principles and theories related to biological science and theories of education which are necessary for professional preparation .	a1	A
Find the relationship between the scientific biological theories and other scientific and professional fields related to biological science .	a2	
Classify the latest educational and psychological developments and recent researches that can find solutions for issues and increase knowledge in biology field .	a.3	
Explain the systems and regulations of the profession and its technical requirements and how to improve them according to the subsequent changes	a.4	
Investigate the information and analyze them to study phenomena related to Biological science and teaching problems that she face , then using it in proposing innovative solutions based on her theoretical and practical background to take appropriate decisions	b1	B
Analyze the relationship between the construction and function at the molecular , cellular , organic and ecological levels with explanation of the molecular mechanisms, metabolism and gene expression	b2	
Conclude the reasons for the relatively complex problems in biological science, using variable forms of information technologies and other sources.	B.3	
Link between knowledge, acquiring skills, academic, and professional contexts related to the teaching of biology fields .	b4	
Take the initiative in identifying the issues and class rooms problems with suggestion of constructive solutions in the collective and individual attitudes	c1	C
Exercise group's leadership in a variety of situations which require innovative responses	c2	
Form a positive trends towards the teaching profession committed to ethical and professional values, taking into account the humane treatment of all living organisms in the field of research and laboratory	c.3	
Be responsible for self-learning and continuing personal and professional development, using the means of finding new information or analysis . techniques to accomplish the tasks	c.4	

Communicate verbally and in written ways by using appropriate display forms for different issues with different recipients.	d1	D
Use Appropriate information technology and communication in gathering information to interpret and implement it in teaching situations	d2	
Determine the statistical and mathematical methods which are relevant in examining issues and problems, and creatively applied in interpreting the information and propose solutions	d.3	
Master the use of tools and, laboratory devices in dissection and conduction of practical experiments	e1	E
Know well how to examine and draw microscopic sectors in a valid scientifically method	e2	

### **Objectives of the program:-**

- Graduating a qualified students with creative thinking to teach biology in the various stages of education
- Developing communication skills and creativity for graduates students in research process and self-learning using information technology
- Presenting principles and professional ethics in teaching biology
- helping the graduate to identify the scientific concepts and results of studies on all living organisms and environmental studies in the areas of the kingdom

## Consistency Matrix between learning program outcomes and outcomes of the National Commission for evaluation and Accreditation (NCAAA)

College:- college of education in Majmaah

Academic department :- Biology

The program:- **Biology**

E NCAAA	D <sub>NCAAA</sub>			C <sub>NCAAA</sub>					B <sub>NCAAA</sub>					A <sub>NCAAA</sub>									
	E1	D3	D2	D1	C5	C4	C3	C2	C1	B6	B5	B4	B3	B2	B1	A4	A3				A1	A1	
																					a1	A	learning program outcomes
																					a2		
																					A3		
																					A4		
																					b1	B	
																					b2		
																					B3		
																					B4		
																					c1	C	
																					c2		
																					C3		
																					C4		
																					d1	D	
																					d2		
																					D3		
																					e1	E	
																					e2		

### Outcomes of the National Commission for evaluation and Academic accreditation (NCAAA)

Learning outcomes	code	area
Have an integrated , comprehensive knowledge and structured study field of study .Also need the principles and basic theories related to that field	A1	A
Be familiar with the knowledge and theories in other areas of science which is related to this area, and conversant with other relevant professional areas of if the .specialization is professionally	A2	
Be familiar with as well as the latest developments in the disciplines included in the field of study including higher awareness of modern research on finding solutions to .the issues and increase knowledge in the field .	A3	
In programs that prepare students for professional practice, the graduates are aware of the systems and regulations of the profession, technical requirements and .how to improve it over time in response to changes in ambient conditions	A4	

Can do the survey, to understand the information , concepts and new evidence from ,a variety of sources	B1	<b>B</b>
apply the results to a wide range of issues and problems with a small amount of .guidance	B2	
Be looking for relatively complex problems by using a variety of technologies information forms and other sources	B3	
proposes innovative solutions with taking into account the theoretical knowledge and practical experiences which are related to this field and consequent decisions depends on..	B4	
apply these skills and bleachers in the academic and professional contexts related to ,the field . As in professional programs	B5	
Be able to use the usual procedural methods (routine) appropriately, identifying situations that require innovative solutions and respond depends on the theoretical .and practical background .	B6	
Using regular procedure in professional program properly and can take advantage of the theoretical and practical ideas related to identify situations that require .innovative solutions	C1	<b>C</b>
The group's leadership is practiced in a variety of situations requiring innovative .responses	C2	
identifying the issues that require special and respond appropriately whether it's .individually or through collective action	C3	
Take responsibility for self-learning and can be determined and used means of finding new information or necessary to accomplish the tasks assigned analysis .methods	C4	
Deals with the ethical and professional issues that are related to the values and moral judgments in ways that are sensitive to others and are compatible with the .core values and professional ethics accepted	C5	
Determines the statistical and mathematical methods relevant when examining the issues and problems, and to apply them creatively in interpreting the information .and propose solutions	D1	<b>D</b>
Communicate written and verbally effectively , to choose and use appropriate forms .of presentation of the different issues and different recipients	D2	
Used routinely (routine) more information and communication technologies .suitable to gather, interpret and communicate information and ideas	D3	
Skills required self and tactile synergy in the use of machine tools or a specific example of printing, painting, surgery, and is associated with some skill disciplines		<b>E</b>

## Outcomes of the program :-

Outcomes	code	area
Collection of integrated comprehensive knowledge of the basic principles and theories of biology and theories of education and learning which are	<b>a1</b>	<b>A</b>

necessary for professional preparation .		
Find the relationship between the theories of Biology, scientific, professional and other areas related to the fields of Biology.	<b>a2</b>	
The latest educational and psychological developments are classified as modern research to find solutions to the issues and increase knowledge in the field of biology	<b>a.3</b>	
Interpretation of systems and regulations of the profession, technical requirements and how to improve them according to the successive changes .	<b>a.4</b>	
Investigates information and analysis study of phenomena related to biology in addition to classroom problems and teaching that faced them and use it to propose innovative solutions based on the theoretical and practical background which are related. And take appropriate decisions	<b>b1</b>	<b>B</b>
Analyze the relationship between the construction and in molecular , cellular, organic and ecological levels and explain the molecular mechanisms regulating metabolism and gene expression	<b>b2</b>	
Reducing the reasons for the relatively complex problems for biology, using a variety forms of information technologies and other resources.	<b>B.3</b>	
Linking knowledge and skills gained academic and professional contexts related to areas of Biology teaching .	<b>B4</b>	
Take the initiative in identifying the issues and problems of classroom and propose constructive solutions in the collective and individual situations.	<b>c1</b>	<b>C</b>
Exercise group's leadership in a variety situations which require innovative responses.	<b>c2</b>	
A positive attitude towards the teaching profession uncovered capabilities faculty and denominated in the	<b>c.3</b>	

same objectively and is committed to ethical and professional values consistent with the nature of society, and take into account the humane treatment of all living organisms in the field of research and laboratory		
Responsible for self-learning and continuing personal and professional development, using the means of finding new information or necessary to accomplish the tasks assigned to analysis methods	<b>c.4</b>	
Communicate verbally and in writing effectively, by using the forms of the appropriate display of different issues with different recipients	<b>d1</b>	<b>D</b>
Appropriate information and communication technologies used in gathering and interpretation information. Implementation of the teaching situations	<b>d2</b>	
Determine the statistical and mathematical methods relevant when examining the issues and problems, and creatively applied in interpreting the information and propose solutions	<b>d.3</b>	
Mastered the use of laboratory tools and devices in anatomy and conduct practical experiments	<b>e1</b>	<b>E</b>
The renewal examination and draw a microscopic sectors with valid scientific way	<b>e2</b>	

## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- **Biology**

<b>Practicing group's leadership in a variety of situations requiring innovative responses</b>		
Identify work skills within the groups and how to use them	Performance indicator (1)	Performance indicators
Fluent command of the team skillfully if necessary	Performance indicator (2)	
Provide a safe environment for team work to generate creative ideas	Performance indicator (3)	

## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- **Biology**

<b>Formatting Positive attitudes towards the teaching profession to discover teaching capabilities and denominate it objectively also, committed to ethical and professional values consistent with the nature of society, and take into account the humane treatment of all living organisms in the field of research and laboratory</b>		
Be familiar with the knowledge , skills and trends that needed to build a professional and human relations with parents and the local community.	Performance indicator (1)	Performance indicators
Employ communication skills to build a positive relationships with the educational institution management and colleagues to achieve the objectives of the institution	Performance indicator (2)	
Applying ethics of the teaching profession in its dealings within and outside of the institution while dealing with living organisms	Performance indicator (3)	

## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>Responsible for self-learning and continuing personal and professional development, using the means of finding new information or necessary to accomplish the tasks assigned to analysis methods</b>		
Developing professional performance on an ongoing basis based on contemporary developments in biology and teaching strategies .	Performance indicator (1)	Performance indicators
Applying a self-learning skills in personal and professional development	Performance indicator (2)	

## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>using effective verbally and written Communication , by appropriate forms of presentation of the various issues with the recipients of all types</b>		
Identifying the communication and literature skills and how to use them to serve the educational process	Performance indicator (1)	Performance indicators
Communicating effectively and positively (verbally or written), in various positions within and outside the organization	Performance indicator (2)	
Using modern teaching aids to collect, prepare and analyze of the ideas, taking into the individual differences of students	Performance indicator (3)	



## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>Counts integrated comprehensive knowledge of the basic principles and basic theories related to the science of Biology and education and learning theories which are necessary for professional preparation .</b>		
<b>Knows skills, knowledge and trends which are related to the field of Biology teaching</b>	Performance indicator (1)	Performance indicators
<b>Employing the knowledge and skills which are related to the science of Biology in teaching situations</b>	Performance indicator (2)	
<b>shows Positive interest towards the profession of teaching Biology</b>	Performance indicator (3)	

## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>classifies the latest educational and psychological developments and new research which are related to the solutions of the issues and increase the knowledge in the field of Biology</b>		
<b>Mastered the educational experiences , which qualifies them to teach Biology Science efficiently in the practical education</b>	Performance indicator (1)	Performance indicators
<b>Linking between curriculum , research methods and areas of using it in Biology teaching methods .</b>	Performance indicator (2)	
<b>Employing thinking skills to solve problems and various issues .of the educational process</b>	Performance indicator (3)	

## ( Basic Skills Of the university )

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College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>Explaining systems and regulations of the profession, its technical requirements and how to improve it according to the successive change</b>		
<b>Applying ethics of the teaching profession in dealings inside and outside the institution</b>	Performance indicator (1)	Performance indicators
<b>Applying learning and school management system inside and outside the institution</b>	Performance indicator (2)	

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## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>Investigates information and analyzes the study of phenomena related to biology in addition to classroom and teaching problems that faced them and use it to propose innovative solutions based on the theoretical and practical background of the relationship and take appropriate decisions</b>		
<b>Identify problems which are related to the science of Biology in the educational process</b>	Performance indicator (1)	Performance indicators
<b>Employs the basic steps for Educational Research in the scientific and educational classroom problems .</b>	Performance indicator (2)	
<b>Employs thinking skills in scientific research and to contribute in treatment of teaching problems related to the science of Biology</b>	Performance indicator (3)	

## ( Basic Skills Of the university )

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College:- college of education in Majmaha

Academic department :- Biology

The program:- Biology

<b>Linking knowledge , gained skills , academic and professional contexts related to teaching of the fields of Biology</b>		
<b>Analysis the principles , theories, knowledge and skills which are related to teaching the science of Biology</b>	Performance indicator (1)	Performance indicators
<b>employs modern methods of evaluation in the assessment of learning outcomess</b>	Performance indicator (2)	
<b>Applying modern teaching strategies in teaching Biology</b>	Performance indicator (3)	

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## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>Take the initiative in identifying the issues and classroom' problems then propose constructive solutions in the collective and individual situations .</b>		
<b>Identifying work skills within the groups and how to use them</b>	Performance indicator (1)	Performance indicators
<b>using modern methods and strategies of teaching in proposing constructive solutions</b>	Performance indicator (2)	
<b>Activating the communication skills among the students in group activities .</b>	Performance indicator (3)	

## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>Formatting a Positive attitude towards the teaching profession to be uncovered educational capabilities and denominated in the same objectively. Also, committing to ethical and professional values which consistent with the nature of society, and take into account the humane treatment for all living organisms in the field of research and laboratory.</b>		
<b>Applying self-learning skills in personal and professional development</b>	Performance indicator (1)	Performance indicators
<b>Developing professional performance on an ongoing basis based on contemporary developments in professional development</b>	Performance indicator (2)	
<b>explain Islamic values and ethics of the teaching profession</b>	Performance indicator (3)	

## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>Using appropriate information and communication technologies to collect and explain the information and Implementing it in teaching situations .</b>		
<b>Identify new trends in the field of information and communication technologies</b>	Performance indicator (1)	Performance indicators
<b>Use modern teaching aids in the collection , preparation , analysis, and dumping ideas, taking into account individual differences among students.</b>	Performance indicator (2)	
<b>Formatting a positive trend towards the use of information and communication technologies in the search for information and using them in implementing it in teaching situations</b>	Performance indicator (3)	

## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>Counts integrated comprehensive knowledge of the basic principles and basic theories related to the science of Biology and education and learning theories which are necessary for professional preparation .</b>		
<b>Knows skills, knowledge and trends which are related to the field of Biology teaching</b>	Performance indicator (1)	Performance indicators
<b>Employing the knowledge and skills which are related to the science of Biology in teaching situations</b>	Performance indicator (2)	
<b>shows Positive interest towards the profession of teaching Biology</b>	Performance indicator (3)	

## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>classifies the latest educational and psychological developments and new research which are related to the solutions of the issues and increase the knowledge in the field of Biology</b>		
<b>Mastered the educational experiences , which qualifies them to teach Biology Science efficiently in the practical education</b>	Performance indicator (1)	Performance indicators
<b>Linking between curriculum , research methods and areas of using it in Biology teaching methods .</b>	Performance indicator (2)	
<b>Employing thinking skills to solve problems and various issues .of the educational process</b>	Performance indicator (3)	

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## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>Explaining systems and regulations of the profession, its technical requirements and how to improve it according to the successive change</b>		
<b>Applying ethics of the teaching profession in dealings inside and outside the institution</b>	Performance indicator (1)	Performance indicators
<b>Applying learning and school management system inside and outside the institution</b>	Performance indicator (2)	

كود النموذج  
MUP08

## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>Investigates information and analyzes the study of phenomena related to biology in addition to classroom and teaching problems that faced them and use it to propose innovative solutions based on the theoretical and practical background of the relationship and take appropriate decisions</b>		
<b>Identify problems which are related to the science of Biology in the educational process</b>	Performance indicator (1)	Performance indicators
<b>Employs the basic steps for Educational Research in the scientific and educational classroom problems .</b>	Performance indicator (2)	
<b>Employs thinking skills in scientific research and to contribute in treatment of teaching problems related to the science of Biology</b>	Performance indicator (3)	

## ( Basic Skills Of the university )

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College:- college of education in Majmaah

Academic department: - Biology

The program:- Biology

<b>Linking knowledge , gained skills , academic and professional contexts related to teaching of the fields of Biology</b>		
<b>Analysis the principles , theories, knowledge and skills which are related to teaching the science of Biology</b>	Performance indicator (1)	Performance indicators
<b>employs modern methods of evaluation in the assessment of learning outcomess</b>	Performance indicator (2)	
<b>Applying modern teaching strategies in teaching Biology</b>	Performance indicator (3)	

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## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>Take the initiative in identifying the issues and classroom' problems then propose constructive solutions in the collective and individual situations .</b>		
<b>Identifying work skills within the groups and how to use them</b>	Performance indicator (1)	Performance indicators
<b>using modern methods and strategies of teaching in proposing constructive solutions</b>	Performance indicator (2)	
<b>Activating the communication skills among the students in group activities.</b>	Performance indicator (3)	

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## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>Formatting a Positive attitude towards the teaching profession to be uncovered educational capabilities and denominated in the same objectively. Also, committing to ethical and professional values which consistent with the nature of society, and take into account the humane treatment for all living organisms in the field of research and laboratory.</b>		
<b>Applying self-learning skills in personal and professional development</b>	Performance indicator (1)	Performance indicators
<b>Developing professional performance on an ongoing basis based on contemporary developments in professional development</b>	Performance indicator (2)	
<b>explain Islamic values and ethics of the teaching profession</b>	Performance indicator (3)	

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## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>Using appropriate information and communication technologies to collect and explain the information and Implementing it in teaching situations .</b>		
<b>Identify new trends in the field of information and communication technologies</b>	Performance indicator (1)	Performance indicators
<b>Use modern teaching aids in the collection , preparation , analysis, and dumping ideas, taking into account individual differences among students.</b>	Performance indicator (2)	



Formatting a positive trend towards the use of information and communication technologies in the search for information and using them in implementing it in teaching situations .	Performance indicator (3)	
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## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>( a1 )Educational outcomes</b> Counts integrated comprehensive knowledge of the basic principles and basic theories related to the science of Biology and education and learning theories which are necessary for professional preparation .		
Know Biology theories and basic knowledge of the field of Biology which are related to Biology and field of education and learning	Performance indicator (1)	Performance indicators
Making research on the scientific level of private principles and theories of Biology	Performance indicator (2)	

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## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>( a2 )Educational outcomes</b> finding the relationship between the theories of Biology, and other scientific and professional areas which are related to the fields of science Biology		
Student can link the theories of Biology and other scientific and professional areas	Performance indicator (1)	Performance indicators
Define the relationship between the theories of Biology and professional and scientific fields through oral and written communication	Performance indicator (2)	

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## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>( a3 )Educational outcomes</b> <b>classifies the latest educational and psychological developments and new research which are related to the solutions of the issues and increase the knowledge in the field of Biology</b>		
<b>The student prepared developed research to classify the latest educational and psychological developments</b>	<b>Performance indicator (1)</b>	<b>Performance indicators</b>
<b>Student propose solutions on a scientific basis, issues and increase knowledge in the field of Biology through panel discussions</b>	<b>Performance indicator (2)</b>	
<b>Students apply the latest educational and psychological developments through practical</b>	<b>Performance indicator (3)</b>	

كود النموذج  
MUP08

## ( Basic Skills Of the university )

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>( a4 )Educational outcomes</b> <b>Explaining systems and regulations of the profession, its technical requirements and how to improve it according to the successive change</b>		
<b>Explaining systems and regulations of the profession through sessions .</b>	<b>Performance indicator (1)</b>	<b>Performance indicators</b>
<b>Doing systems and regulations during practical education.</b>	<b>Performance indicator (2)</b>	

( Program Skills ) Basic skills of program

College:- college of education in Majmaah

Academic department :- Biology

The program:- Biology

<b>( b1 )Educational outcomes</b>		Performance indicators KPIS
<b>Investigates information and analyzes to study the phenomena which are associated with the knowledge of Biology in addition to classroom teaching and the problems faced and use it to propose innovative solutions and take appropriate decisions</b>		
<b>Facing problems of classroom teaching effectively during applied it in field training</b>	<b>Performance ( 1 ) index</b>	
<b>applying modern scientific methods in presenting scientific material</b>	<b>Performance ( 2 ) index</b>	
<b>Analysis phenomena associated with the knowledge of Biology through worksheets or tests</b>	<b>Performance ( 3 ) index</b>	

( Program Skills ) Basic skills of program

<b>( b2 )Educational outcomes</b>		Performance indicators KPIS
<b>analyzes the relationship between the construction , function at the molecular and cellular levels, organic and ecological explaining the molecular mechanisms regulating gene expression and metabolism</b>		
<b>Explain the molecular mechanisms regulating metabolism and gene expression</b>	<b>) Performance index ( 1</b>	
<b>analyzes the relationship between the construction and function at the molecular , cellular levels, organic and ecological</b>	<b>) Performance index ( 2</b>	

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MUP08a

## ( Program Skills ) Basic skills of program

الكلية : التربية بالمجمعة القسم الاكاديمي : **Biology** البرنامج : **Biology**

College of education in Majmaah

Academic department: - Biology

program:- biology

<b>( b3 ) Educational outcomes</b>		Performance indicators
<b>Concludes the reasons for the relatively complex problems with the knowledge .of Biology, using various forms of information technologies and other sources</b>		
<b>Comparing the different causes that lead to the emergence of the scientific problems related to biology</b>	) Performance index ( 1	
<b>Explores relatively solutions to complex problems with the knowledge of Biology, using various forms of information technologies</b>	) Performance index ( 2	

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## ( Program Skills ) Basic skills of program

College of education in Majmaah

Academic department: - Biology

program:- biology

<b>(b4 )Educational outcomes</b>		Performance indicators
<b>Linking knowledge and acquiring skills , academic and professional contexts related to the teaching of Biology</b>		
<b>preparing a research to link the knowledge and skills gained academic and professional contexts related to teaching Biology</b>	Performance ( 1 ) index	
<b>Apply knowledge and skills while teaching the fields of Biology</b>	Performance ( 2 ) index	
<b>Show professional abilities in the field of Biology through the knowledge and skills gained academic and professional contexts</b>	Performance ( 3 ) index	

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MUP08a

## ( Program Skills ) Basic skills of program

College of education in Majmaah

Academic department: - Biology

program:- biology

<b>Educational outcomes c1</b>		
<b>Take the initiative in identifying the issues and classroom' problems then propose constructive solutions in the collective and individual situations .</b>		
<b>Contribute to solve classroom problems during field training</b>	Performance indicator (1)	Performance indicators
<b>Propose constructive solutions to the issues and problems of the classroom by working as a team</b>	Performance indicator (2)	
<b>Analyzed and evaluated feedback from the target group</b>	Performance indicator (3)	

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MUP08a

( Program Skills ) Basic skills of program

College of education in Majmaah  
program:- biology

Academic department: - Biology

<b>Educational outcomes c2</b> <b>Practice group's leadership in a variety of situations requiring innovative responses.</b>		
<b>working in groups to plan and implement actions mandated</b>	<b>Performance indicator (1)</b>	<b>Performance indicators</b>
<b>Responsible for the preparation and presentation to explain within a team or individually</b>	<b>Performance indicator (2)</b>	

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MUP08a

( Program Skills ) Basic skills of program

College of education in Majmaah  
program:- biology

Academic department: - Biology

<b>Educational outcomes (c3)</b> <b>Contracting positive attitudes towards the teaching profession be uncovered capabilities faculty and denominated in the same objectively and is committed to ethical and professional values consistent with the nature of society</b>		
<b>It is committed to ethical values during the field training in line with the nature of society</b>	<b>Performance indicator (1)</b>	<b>Performance indicators</b>
<b>Use modern strategies to develop their teaching in the preparation of presentations</b>	<b>Performance indicator (2)</b>	
<b>Follow the security and safety rules and take care of the humane treatment of all living organisms</b>	<b>Performance indicator (3)</b>	

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MUP08a

## ( Program Skills ) Basic skills of program

College of education in Majmaah  
program:- biology

Academic department: - Biology

<b>Educational outcomes (c4)</b> <b>Responsible for self-learning and continuing development of personal and professional using the means of finding new information or necessary to accomplish the tasks assigned to analysis methods</b>		
<b>Gaining self-learning skills during a field training</b>	Performance indicator (1)	Performance indicators
<b>the student develops herself as professionally and personally development through the preparation of research</b>	Performance indicator (2)	
<b>Use modern technology to accomplish the tasks assigned to it</b>	Performance indicator (3)	
<b>Looking and explores information through statistical studies</b>		

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MUP08a

## ( Program Skills ) Basic skills of program

College of education in Majmaah  
program:- biology

Academic department: - Biology

<b>Educational outcomes (d1)</b> <b>Effective verbal and written communication, using the forms of the appropriate display for different issues with different recipients</b>		
<b>Communicate effectively verbally in writing with the recipients depending</b>	Performance indicator (1)	Performance indicators
<b>The numbers of suitable offers for different issues</b>	Performance indicator (2)	

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MUP08a

## ( Program Skills ) Basic skills of program

College of education in Majmaah  
program:- biology

Academic department: - Biology

<b>Educational outcomes (d2)</b> <b>Using appropriate information and communication technologies to collect and explain the information and Implementing it in teaching situations .</b>		
<b>Using appropriate information and communication technologies to collect and interpret information through research' development</b>	Performance indicator (1)	Performance indicators
<b>Treating with some topics by using modern techniques</b>	Performance indicator (2)	

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MUP08a

## ( Program Skills ) Basic skills of program

College of education in Majmaah  
program:- biology

Academic department: - Biology

<b>Educational outcomes (d3)</b> <b>Determine the statistical and mathematical methods relevant with examining the issues and problems, and applying it with creative way applied in interpreting the information and propose solutions</b>		
<b>Investigates information about issues and problems</b>	Performance indicator (1)	Performance indicators
<b>Interprets the information and propose solutions to the issues and problems in panel discussions</b>	Performance indicator (2)	



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MUP08a

## ( Program Skills ) Basic skills of program

College of education in Majmaah  
program:- biology

Academic department: - Biology

<b>Educational outcomes (e1)</b> Mastered the use of tools and laboratory devices in anatomy and conduct practical experiments		
Using tools and laboratory devices with scientifically valid way	Performance indicator (1)	Performance indicators
Demonstrate skill in dealing with living organisms and dissect animals	Performance indicator (2)	

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MUP08a

## ( Program Skills ) Basic skills of program

College of education in Majmaah  
program:- biology

Academic department: - Biology

<b>Educational outcomes (e2)</b> Microscopic examination and drawing sectors with scientifically valid way		
Examine microscopic sectors shown fitted with drawing	Performance indicator (1)	Performance indicators
Conducting laboratory experiments efficiently	Performance indicator (2)	

## Rubrics for assessing learning outcomes

College:- College of education in Majmaah

Academic department:- Biology

Program:- **Biology**

Learning outcomes a1: counting the integrated comprehensive knowledge of the fundamental principles and theories of biology and theories of education and learning which are necessary for professional preparation

Rubrics				
Strong(70-100)	Mediterranean (69 -40)	weak(39-0)		
She has extensive knowledge of theories of biology and basic knowledge on biology and the field of teaching and learning	She has a limited knowledge of theories of biology and basic knowledge of biology and the field of teaching and learning	She does not have any knowledge of theories of biology and basic knowledge of biology and the field of teaching and learning	The Student knows the theories of biology and basic knowledge of biology and the field of teaching and learning	( KPIS ) Performance indicators
Present scientific research based on the foundations and principles of biology	Present scientific research related to principles and theories of biology	She can't prepare Researches based on scientific principles	The student prepared researches on the scientific level related to principles and theories of biology	

## Learning outcomes (a 2 )

Find the relationship between the theories of biology, and scientific  
.and other professional areas related to biology

<b>Rubrics</b>				
<b>Strong(70-100)</b>	<b>Mediterranean (69 -40)</b>	<b>weak(39-0)</b>		
She has enough capacity on linking between theories of biology and all other fields	she may sometimes link between the theories of biology, and other scientific and professional fields	she does not have the ability to link between the theories of biology and other fields	Linking theories of biology and f professional, and other scientific areas	<b>( Kpi's ) Performance indicators</b>
Determine the relationship between biology and its' theories and scientific and professional areas	Define the relationship between the theories of biology and scientific , professional fields as much as a simple	She can't able to determine the relationship between biology and other sciences	Define the relationship between the theories of biology and scientific and professional fields	

## Learning outcomes (a3)

**Classifying the latest educational and psychological developments and new research related to on finding solutions for the issues and increasing knowledge in the field of biology. .**

<b>Rubrics</b>				
<b>Strong(70-100)</b>	<b>(69 -40) Mediterranean</b>	<b>weak(39-0)</b>		
She did a strong research included each new in educational and psychological developments	She did a weak research and does not explain any new developments in educational and psychological field	She did not do any research to examine the educational and psychological developments	Preparing developed researches to classify the latest educational and psychological developments	<b>Performance indicators</b>
She has enough capacity to teach and deliver information and using advanced methods of teaching	She has a Limited capacity and continuing with ineffective way students during a field training	She can't able to teach and communicating with students during a field training	She applies the latest psychological and educational developments through field training	
collecting information and discussing within the team and deal positively in resolving issues related to biology	Collaborator but not looking for a new information-related solutions of issues in the field of biological sciences	Totally uncooperative in the panel discussions relating to creating scientific solutions	Devise solutions on a scientific basis, issues and increase knowledge in the field of biology through panel discussions	

## Learning outcomes a4

Interprets rules and regulations of the profession, technical requirements and how to improve them according to successive changes

<b>(Rubrics )</b>				
<b>Strong(70-100)</b>	<b>(69 -40) Mediterranean</b>	<b>weak(39-0)</b>		
she knows all the rules and regulations and apply it	she knows some of the rules and regulations and do not use it	she is not familiar with any regulations and do not react in panel discussions	Explain the rules and regulations through panel discussions	<b>Performance indicators</b>
She presents proposals to improve the regulation of the profession in light of the changes	She obligates to certain ones	She do not obligate rules and regulations of the profession	obligates by rules and regulations during field training	

## Learning outcomes b1

Investigates and analyzes information for the study of phenomena related to biology in addition to classroom teaching problems that faced them and use it to propose innovative solutions based on the theoretical and practical background of the relationship and take appropriate decisions

(Rubrics )				
Strong(70-100)	Mediterranean (69 -40)	weak(39-0)		
She has enough capacity to teach and deliver information and using advanced methods of teaching	She has a Limited capacity and continuing ineffective way with students	She is not able to communicate with teaching and communicate with students	Facing problems of classroom teaching effectively during applied it in field training	Performance indicators
She presenting modernization process and continuous access to all that is new modern methods in providing scientific material	She is not doing a renovation of teaching methods	She does not keep pace with modern developments in presenting a scientific material	applying modern scientific methods in presenting scientific material	
Propose innovative solutions of the classroom problems and take appropriate decisions	She Presenting solutions for classroom problems	She is not able to provide innovative solutions and decision-making	Propose innovative solutions of the classroom problems and take appropriate decisions	
she has a great ability to perform the work and submit it alone owns and within the working group to analyze the phenomena related to biology	Trying to discuss with a non-scientific analysis of phenomena related to biology	she does not work as a team and does not participate with worksheets to analyze the phenomena of biology	Analysis phenomena associated with the knowledge of Biology through worksheets in team	

## Learning outcomes b2

**Analyzes the relationship between the construction , function at the molecular and cellular levels, organic and ecological explaining the molecular mechanisms regulating gene expression and metabolis**

			(Rubrics )	Performance indicators
Strong(70-100)	Mediterranean (69 -40)	weak(39-0)		
She is able to perform experiments that explain the molecular mechanisms and regulating metabolism gene expression and come up with results accurate	She Conducting the experiment that explain the molecular mechanisms and regulating gene expression and metabolism, with some errors	She is not able to do experiments that explain the molecular mechanisms and regulating metabolism and gene expression	Conducting laboratory experiments to explain the molecular mechanisms and regulating metabolism and gene expression	
She collecting samples and figures . and know how to work in a scientific way to analyze the relationship between the construction and function in the molecular and cellular organic and ecological levels	She does not collect Samples but do not know how to work Models To analyze the relationship between the construction and function in the molecular and cellular organic and ecological levels	She may not collect samples of figurative work to analyze the relationship between the construction and function in the molecular and cellular organic and ecological levels	Collecting Samples for work-outs to analyses the relationship between the construction and function in the , cellular organic and ecological levels	
She is able entirely on anatomy and identify all the parts of the animals to explain the relationship between the construction and function in the molecular , cellular organic and ecological levels	She Partially able to dissect animals to explain the relationship between the construction and function in the molecular , cellular organic and ecological levels	She is not able to anatomy to analyze the relationship between the construction and function in the molecular and cellular organic and ecological levels	Having Skill to dissect animals to explain the relationship between the construction and function in the molecular and cellular , and organic and ecological levels	
She can use a microscope perfectly to explain the molecular mechanisms regulating gene expression	She can but not with scientific way to use a microscope to explain the molecular mechanisms regulating gene expression	She cannot use a microscope to explain the molecular mechanisms regulating gene expression	Use a microscope to explain the molecular mechanisms and regulating gene expression	

## Learning outcomes b3

Concludes the reasons for the relatively complex problems with the knowledge of Biology, using various forms of information technologies and other sources

<b>(Rubrics )</b>				
<b>Strong(70-100)</b>	<b>(69 -40) Mediterranean</b>	<b>weak(39-0)</b>		
She is able to collect and analyze statistical data using a variety forms of information technologies	She is able to gather information and is not able to analyzed it using a variety forms of information technologies	She is not able to gather statistical information using a variety forms of information technologies	Explores relatively solutions to complex problems with the knowledge of Biology, using various forms of information technologies	<b>Performance indicators</b>
she has an extensive ability to use information technology and research work to solve problems of biology	She has a limited ability to use technology and research work to solve problems of biology	She does not have the ability to use information technology and research work to solve problems of biology	Sharing with individually and group researches that are dependent on information technology to solve problems	



## Learning outcomes b4

### Linking knowledge and acquiring skills , academic and professional contexts related to the teaching of Biology

<b>(Rubrics )</b>				
<b>Strong(70-100)</b>	<b>Mediterranean (69 -40)</b>	<b>weak(39-0)</b>		
She prepared a strong research included all new to link the acquiring knowledge and skills ,academic and professional contexts related to the teaching of Biology	She prepares a weak research and not clarify anything new in link the field of acquiring knowledge and skills ,academic and professional contexts related to the teaching of Biology	She Is not prepare any research to link acquiring knowledge and skills ,academic and professional contexts related to the teaching of Biology	preparing a research to link acquiring knowledge and skills ,academic and professional contexts related to the teaching of Biology	<b>Performance indicators</b>
She has enough ability to apply knowledge and skills in teaching and communicating with students and using advanced methods of teaching	She has a limited capacity and continuing ineffective to apply knowledge and skills in teaching and communicating with students	She is not able to apply the knowledge and skills in teaching and communicating with students	Apply knowledge and skills while teaching the fields of Biology	
She has a great ability to perform the work and submit it alone owns and within the team	Trying to discuss in a non-scientific way	She does not possess the necessary knowledge and skills To demonstrate its professional capabilities in the field of Biology	Show professional abilities in the field of Biology through the knowledge and skills gained academic and professional contexts	

## Educational outcomes c1

Take the initiative in identifying the issues and classroom' problems then propose constructive solutions in the collective and individual situations.

(Rubrics )				
Strong(70-100)	Mediterranean (69 -40)	weak(39-0)		
She has an enough capacity to teach , deliver information and using advanced methods of teaching	She has a Limited capacity and continuing ineffectively with students	She is not able to teach with students with faculty	Contribute to solve classroom problems during field training	Performance indicators
she Enjoyed with the spirit of the team and always does what is a client in	Sometimes , she do the entrusted work	she does not do her entrusted work in team	Propose constructive solutions to the issues and problems of the classroom by working as a team	
always , she does and review feedback for the target group	Sometimes , she can follow up for the target group	She does not follow up for the target group	Analyzed and evaluated feedback from the target group	

## Educational outcomes c2

Practice group's leadership in variety situations requiring innovative responses.

(Rubrics )				
Strong(70-100)	(69 -40) Mediterranean	weak(39-0)		
she Enjoyed with the spirit of the team and always does what is a client in	Sometimes , she do the entrusted work	she does not do her entrusted work in team	working in groups to plan and implement actions mandated	Performance indicators
She, always prepare and submit and presentation	Sometimes , she can prepare the submit but she cannot present it .	She cannot prepare or present and did not responsible for the work among the team	Responsible for the preparation and presentation to explain within a team or individually	

## Educational outcomes (c3)

Contracting a positive attitudes towards the teaching profession be uncovered capabilities faculty and denominated in the same objectively and is committed to ethical and professional values consistent with the nature of society and take care of the humane treatment for all living organisms in the field of research and laboratory

<b>(Rubrics )</b>				
<b>Strong(70-100)</b>	<b>(69 -40) Mediterranean</b>	<b>weak(39-0)</b>		
She is committed to ethical values during the field training in line with the nature of society and working to spread these values	She is committed to ethical values during the field training in line with the nature of society	She is committed to ethical values during field training	<b>Committed to ethical values during the field training in line with the nature of society</b>	<b>Performance indicators</b>
She provides teaching presentations using modern teaching strategies	She use some of teaching strategies	She doesn't use modern strategies in teaching	<b>Use modern strategies to develop their teaching in the preparation of presentations</b>	
She is able to perform experiments and present correct results according to the correct and safe methods and she fully capable of dealing humanly with animals ,she also does autopsy and identify all the parts	She conducting the experiment with some errors in the use of methods of security and safety and take into account as much as simple to deal with the animals and she able to do anatomy with partly way	She does not able to do practical experiments according to the correct and safe ways and she doesn't care about humane treatment in dealing with animals and doesn't able to anatomy	<b>Follow the security and safety rules and take care of the humane treatment of all living organisms</b>	

## Educational outcomes (c4)

Responsible for self-learning and continuing development of personal and professional using the means of finding new information or necessary to accomplish the tasks assigned to analysis methods

<b>(Rubrics )</b>				
<b>Strong(70-100)</b>	<b>(69 -40) Mediterranean</b>	<b>weak(39-0)</b>		
She is able to search and survey to gain new skills during self-training	Gaining limited skills during a field training	She is able to develop herself during field training	<b>Gaining self-learning skills during a field training</b>	<b>Performance indicators</b>
She does a strong research included all new in the field of biology to develop both professionally and personally development	She does a weak research to clarify anything new in the field of research	She doesn't prepare any research to develop herself professionally and personally	the student develops herself as professionally and personally development through the preparation of research	
she has enough capable to use technology to accomplish the tasks assigned to her	She has a limited capable to use technology to accomplish the tasks assigned to her	She is able to use technology to accomplish the tasks assigned to her	<b>Using modern technology to accomplish the tasks assigned to her</b>	

## Educational outcomes (d1)

**Effective verbal and written communication, using the forms of the appropriate display for different issues with different recipients**

<b>(Rubrics)</b>				
<b>Strong(70-100)</b>	<b>Mediterranean (69 -40)</b>	<b>weak(39-0)</b>		
She has a capable to communicate with verbally and written ways by caring of different learners	She communicate with verbal and written ways with special kinds if recipients.	She doesn't use verbal and written communication	<b>Effective verbal and written communication, with different recipients</b>	<b>Performance indicators</b>
Always, she can prepare presentation to solve all problems in Biology field.	Sometimes she can prepare presentation and did not solve any important issue in biology field .	She cannot prepare any presentation to solve any issue in biology field.	<b>Prepare suitable presentations for different issues</b>	

## Educational outcomes (d2)

Using appropriate information and communication technologies to collect and explain the information and Implementing it in teaching situations .

<b>(Rubrics )</b>				
<b>Strong(70-100)</b>	<b>(69 -40) Mediterranean</b>	<b>weak(39-0)</b>		
She prepare a strong research according to the standards of good research by using appropriate information and communication technologies in gathering and explain information	She prepares a weak research and doesn't explain the biology phenomena	She does not able to use information technology and prepare any research to explain the biology phenomena	Using appropriate information and communication technologies to collect and interpret information through research' preparation	<b>Performance indicators</b>
She able with perfect way to design work papers in teaching situations	She is able by partly way to solve some topics of Biology	She is able to solve any issue of biology	Treating with some topics by using modern techniques	

### Educational outcomes (d3)

Determine the statistical and mathematical methods relevant with examining the issues and problems, and applying it with creative way applied in interpreting the information and propose solutions

<b>(Rubrics )</b>				<b>Performance indicators</b>
<b>Strong(70-100)</b>	<b>(69 -40) Mediterranean</b>	<b>weak(39-0)</b>		
She is doing constant updates to their information	She is doing a updating of her information but in a non-continuous	She does not keep pace with the Investigation and development for information		
She is able to collect and analyses statistic data	She is able to collect information and not able to analyze it .	She doesn't able to make all statically information	Interprets the information and propose solutions to the issues and problems in panel discussions	
She is able to collect and analyses statistic data in studying problems	She determine some statistical techniques	She cannot Make a comparison among statistical techniques	Making a comparison among statistical techniques	

## Educational outcomes (e1)

Mastered the use of tools and laboratory devices in anatomy and conduct practical experiments

<b>(Rubrics )</b>				
<b>Strong(70-100)</b>	<b>Mediterranean (69 -40)</b>	<b>weak(39-0)</b>		
She afflicts a large knowledge in work performance and development within the lab	she has a limited knowledge of the work in the laboratory	She does not have knowledge with the rules of laboratory work	Using tools and laboratory devices with scientifically valid way	Performance indicators
She is fully able to deal humanely with animals and autopsy it and identify all the parts	She takes care as much as simple to deal with the animals and she is able partially to anatomy	She doesn't care about humane treatment in dealing with animals and she is not able to anatomy	Demonstrate skill in dealing with living organisms and dissect animals during scientific lessons	

## Microscopic examination and drawing sectors with scientifically valid way

<b>(Rubrics )</b>				
<b>Strong(70-100)</b>	<b>Mediterranean (69 -40)</b>	<b>weak(39-0)</b>		
she draw Microscopic sector efficiently	She draw the sectors by un clear form	She cannot draw sectors through the microscope	Examine microscopic sectors shown fitted with drawing	Performance indicators
She Conducted laboratory experiments with high efficiency way	She is able partly, to conduct the laboratory experiments	She is not able to conduct eth laboratory experiments	Conducting laboratory experiments efficiently	



# Program's Map

كود النموذج

MUP10

College of education in Majmaah  
program:- biology

Academic department: - Biology

Course' code	Program' outcomes	Program' objectives	Program' Message	College' Message	University' Message
CHEM 111 ,PHYS111 PHYS125 BOT 122 BOT 213, BOT 323,ZOO 312 ZOO CHEM ,221 224 126EDU412 EDU EDU216 EDU117  EDU118 EDU 217 BOT 413	A1,A2, A3,A4, B1,B2, B3, B4,C1, D2,D3, E1,E2.	Graduating a qualified students to think as creativity to teache biology for the various stages of education	Prepare A new generation of qualified graduates	Prepare qualifie d students with scientifically, educationally and professionally	Community partnership
BOT ,BIO223 315 BIO ,BOT325 415 ZOO 322 BOT 212 ZOO 311, BIO123 BOT414 BOT BOT ,422 326	C2,C4, D1,D2	Developing communication skills and creativity of the graduates in the research process and self-learning by using information technology	Equipped with scientific and practical knowledge	Provide advanced educational programs	Professional Responsibility

<p>ZOO ZOO321,411 BIO ZOO ,424 313 ,ZOO 421 ZOO 211</p> <p>221 EDU EDU311 322 EDU EDU411 SALM101 SAL102 103 SAL SAL104 ARAB101 ARAB103</p>	<p>C3, A4</p>	<p>Entrench the principles and ethics in biology teaching</p>	<p>To meet the needs and requirements of the labor market</p>	<p>Build academic system able to compete in the scientific and educational field</p>	<p>Academy competition</p>
<p>312 EDU EDU321 BOT ,314 CHEM201 BOT222 BOT 324, BOT ,BIO 124 423 EDU 425 ,ZOO121 STAT101 EDU116 STAT</p>	<p>E1,E2,</p>	<p>Providing scientific environment enables the graduate to identify the scientific concepts and results of studies on all living organisms and environmental studies in the areas of the kingdom</p>	<p>Contribute in conducting researches in Biology field to develop community</p>	<p>Providing research and educational services to serve community</p>	<p>Sophisticated research services and advanced educational services</p>

## Techniques of Measuring Learning Outcomes

كود النموذج

College of education in Majmaah  
program:- biology

Academic department: - Biology

<b>Learning outcomes</b>	<b>Techniques of Measuring</b>
Collection of integrated comprehensive knowledge of the basic principles and theories of biology and theories of education and learning which are necessary for professional preparation .	Research assessing, achievement and verbal tests
Find the relationship between the theories of Biology, scientific, professional and other areas related to the fields of Biology.	Study case , Report' preparation ,
The latest educational and psychological developments are classified as modern research to find solutions to the issues and increase knowledge in the field of biology	Research , field education, achievement tests
Interpretation of systems and regulations of the profession, technical requirements and how to improve them according to the successive changes .	Questionnaire
Investigates information and analysis study of phenomena related to biology in addition to classroom problems and teaching that faced them and use it to propose innovative solutions based on the theoretical and practical background which are related. And take appropriate decisions	Study case, field education , achievement tests
Analyze the relationship between the construction and in molecular , cellular, organic and ecological levels and explain the molecular mechanisms regulating metabolism and gene expression	Practical tests, paper sheet, reports
Reducing the reasons for the relatively complex problems for biology, using a variety forms of information technologies and other resources.	Achievement , oral and verbal tests, observation
Linking knowledge and skills gained academic and professional contexts related to areas of Biology teaching .	Practical tests, paper sheet , research
Take the initiative in identifying the issues and problems of classroom and propose constructive solutions in the collective and individual situations.	field education , study case, Observation , reports
Exercise group's leadership in a variety situations which require innovative responses.	field education , Practical tests, presentation

A positive attitude towards the teaching profession uncovered capabilities faculty and denominated in the same objectively and is committed to ethical and professional values consistent with the nature of society, and take into account the humane treatment of all living organisms in the field of research and laboratory	Study case, observation, presentation, practical tests.
Responsible for self-learning and continuing personal and professional development, using the means of finding new information or necessary to accomplish the tasks assigned to analysis methods	Observation , field education ,
Communicate verbally and in writing effectively, by using the forms of the appropriate display of different issues with different recipients	Observation
Appropriate information and communication technologies used in gathering and interpretation information. Implementation of the teaching situations	Researches , reports, field training
Determine the statistical and mathematical methods relevant when examining the issues and problems, and creatively applied in interpreting the information and propose solutions	Study case, reports , achievement tests , observation
Mastered the use of laboratory tools and devices in anatomy and conduct practical experiments	Practical tests , reports, observation
The renewal examination and draw a microscopic sectors with valid scientific way	Questionnaire, reports, paper sheet, practical tests , models

College of education in Majmaah  
program:- biology

Academic department: - Biology

Program Learning Outcome NQF Learning Domains and Learning Outcome																		
		Knowledge				Cognitive Skills				Interpersonal Skills & Responsibility				Communication, Information Technology, Numerical			Psychomotor	
		1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.1	4.2	4.3	5.1	5.2
Courses	SALM101									X		X		X	X			
	ARAB 101				X					X	X	X	X	X	X			
	SALM 102											X		X	X			
	EDU 116								X	X			X	X	X			
	EDU 117			X									X	X				
	EDU118				X								X	X				
	CHEM111	X	X			X	X					X		X	X		X	
	MATH 111	X	X			X			X	X	X				X	X		
	PHYS 111	X	X			X	X						X		X		X	X
	SCOI 101			X					X		X		X	X				
	EDU126	X											X	X				
	PHYS 125	X	X			X	X						X		X		X	
	ZOO 121	X	X			X	X				X		X		X			X
	BOT 122	X	X			X	X					X			X		X	X
	BIO 123	X				X		X					X		X		X	
	BIO 124	X				X		X			X		X		X		X	
	SALM104										X		X	X	X	X		
	EDU 216												X	X				
	EDU 217			X									X	X				
	ZOO 211	X	X			X	X						X		X			X
	BOT 212	X	X			X	X						X		X			X
	BIO 213	X	X	X		X							X		X		X	
	CHEM201	X	X				X				X			X	X		X	
	ARAB 103				X					X	X	X	X	X	X			
	EDU 226	X				X				X			X	X				
	ZOO 221	X				X	X	X			X				X		X	
	BOT 222	X	X			X	X				X			X	X		X	
	BOT 223	X	X					X	X				X	X	X			X
CHEM202	X	X			X						X	X		X	X	X		
STAT101	X	X			X					X	X			X	X			

Program Learning Outcome  
 NQF Learning Domains and Learning Outcome

		Knowledge				Cognitive Skills				Interpersonal Skills & Responsibility				Communication, Information Technology, Numerical			Psychomotor		
		1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.1	4.2	4.3	5.1	5.2	
Courses	EDU 316				X	X				X			X	X					
	EDU 317							X		X	X	X	X	X					
	ZOO 311	X				X		X				X		X				X	
	ZOO 312	X	X			X	X				X		X		X		X	X	
	ZOO 313	X	X			X	X				X				X		X		
	BOT 314	X	X			X	X						X		X		X		
	BOT 315	X	X			X	X				X		X	X				X	
	EDU 326	X								X			X	X					
	EDU 327	X				X							X	X					
	ZOO 321	X				X	X	X			X				X				X
	ZOO 322	X				X		X					X		X		X	X	
	BOT 323	X	X			X	X						X	X			X		
	BOT 324	X	X			X	X						X		X		X	X	
	BOT 325	X	X	X		X	X	X					X	X					
	BOT 326	X	X			X	X				X	X		X	X				
	EDU 416	X				X				X		X	X	X					
	EDU 417	X				X			X				X	X					
	ZOO 411	X				X		X					X		X				X
	ZOO 412	X	X			X	X				X				X				X
	BOT 413	X	X			X	X						X		X		X		
	BOT 414	X	X			X	X						X		X				X
	BIO 415	X	X			X	X					X		X	X				
	ZOO 421	X	X				X	X			X				X		X	X	
	BOT 422	X	X			X	X				X			X			X		
	BOT 423	X	X			X		X			X			X	X		X		
	BIO 424	X	X			X		X			X			X	X		X		
	EDU 425				X	X			X	X			X	X	X				
	ENG101										X		X	X	X				
FCH101		X	X	X						X		X	X	X					
HAF101		X				X				X		X	X	X					
LHR101									X	X		X	X	X					
VOW101								X	X			X	X						

## Program Outcomes

Outcomes	code	area
Collect of integrated comprehensive knowledge of the basic principles and theories of biology and theories of education and learning which are necessary for professional preparation .	a1	A
Find the relationship between the theories of Biology, scientific, professional and other areas related to the fields of Biology.	a2	
The latest educational and psychological developments are classified as modern research to find solutions to the issues and increase knowledge in the field of biology	a.3	
Interpretation of systems and regulations of the profession, technical requirements and how to improve them according to the successive changes .	a.4	
Investigates information and analysis study of phenomena related to biology in addition to classroom problems and teaching that faced them and use it to propose innovative solutions based on the theoretical and practical background which are related. And take appropriate decisions	b1	B
Analyze the relationship between the construction and in molecular , cellular, organic and ecological levels and explain the molecular mechanisms regulating metabolism and gene expression	b2	
Reducing the reasons for the relatively complex problems for biology, using a variety forms of information technologies and other resources.	B.3	
Linking knowledge and skills gained academic and professional contexts related to areas of Biology teaching .	B4	
Take the initiative in identifying the issues and problems of classroom and propose constructive solutions in the collective and individual situations.	c1	C
Exercise group's leadership in a variety situations which require innovative responses.	c2	
A positive attitude towards the teaching profession uncovered capabilities faculty and denominated in the same objectively and is committed to ethical and professional values consistent with the nature of society, and take into account the humane treatment of all living organisms in the field of research and laboratory	c.3	
Responsible for self-learning and continuing personal and professional development, using the means of finding new information or necessary to accomplish the tasks assigned to analysis methods	c.4	
Communicate verbally and in writing effectively, by using the forms of the appropriate display of different issues with different recipients	d1	D
Appropriate information and communication technologies used in gathering and	d2	

interpretation information. Implementation of the teaching situations		
Determine the statistical and mathematical methods relevant when examining the issues and problems, and creatively applied in interpreting the information and propose solutions	d.3	
Mastered the use of laboratory tools and devices in anatomy and conduct practical experiments	e1	E
The renewal examination and draw a microscopic sectors with valid scientific way	e2	



(I,R,E Matrix )of Program' outcomes and courses

College of education in Majmaah

Academic department: - Biology

program:- **Biology**

Program Learning Outcome NQF Learning Domains and Learning Outcome																		
		Knowledge				Cognitive Skills				Interpersonal Skills & Responsibility				Communication, Information Technology, Numerical			Psychomotor	
		1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.1	4.2	4.3	5.1	5.2
Courses	SALM101									I		I		I	I			
	ARAB 101				I					I	I	I	I	I	I			
	SALM 102											I		R	R			
	EDU 116							I		I	I		I	I	R			
	EDU 117			I									I	I				
	EDU118				I								I	I				
	CHEM111	I	I			I	I					I		I	I		I	
	MATH 111	I	I			I			I	I	I				I	I		
	PHYS 111	I	I			I	I						I		I		I	I
	SCOI 101			I					I		R		I	I				
	EDU126	R											R	R				
	PHYS 125	R	R			R	R						R		R		R	
	ZOO 121	I	I			I	I				I		I		I			I
	BOT 122	I	I			I	I					I			I		I	I
	BIO 123	I				I		I					I		I		I	
	BIO 124	I				I		I			I		I		I		I	
	SALM104										I		I	I	I	I		
	EDU 216												R	R				
	EDU 217			I									R	I				
	ZOO 211	I	I			R	R						I		I			I
	BOT 212	I	I			I	I						E		E			I
	BIO 213	R	R	R		R							R		E		I	
	CHEM201	R	R				R				R			R	R		R	
	ARAB 103				I					I	I	I	I	I	I			
	EDU 226	R				R				I			I	R				
	ZOO 221	R				E	E	E			R				R		E	
	BOT 222	I	I			I	I				R				R		I	
	BOT 223	I	I					I	I				I	I	I			I
CHEM202	E	E			E						E	E		E	E	E		
STAT101	I	I			I					R	R			R	R			

Program Learning Outcome  
NQF Learning Domains and Learning Outcome

		Knowledge				Cognitive Skills				Interpersonal Skills & Responsibility				Communication, Information Technology, Numerical			Psychomotor	
		1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.1	4.2	4.3	5.1	5.2
Courses	EDU 316				R	R				R			R	R	E			
	EDU 317									R	E	E	R	R	R			
	ZOO 311	I				R		R					I		R			R
	ZOO 312	I	I			I	I				R		R		R		R	R
	ZOO 313	R	R			E	E				R				R		E	
	BOT 314	R	R			R	R						R		R		R	
	BOT 315	R	R			I	I				R		R	R				R
	EDU 326	R								R			R	R				
	EDU 327	E				R							R	R				
	ZOO 321	E				E	E	E			E				R			E
	ZOO 322	R				R		R					E		E		E	E
	BOT 323	I	E			I	I						E	E			E	
	BOT 324	I	I			E	E						E		E		E	E
	BOT 325	E	E	E		E	E	E					E	E				
	BOT 326	R	R			R	R				R	R		E	R			
	EDU 416	E				R				E		E	E	E				
	EDU 417	E				E			E				E	E				
	ZOO 411	E				E		E					E		E			E
	ZOO 412	E	E			E	E				E				E			E
	BOT 413	E	E			E	E						E		E		E	
	BOT 414	E	E			R	E						R		I			R
	BIO 415	E	E			E	E					E		E	E			
	ZOO 421	E	E				E	E			E				E		E	E
	BOT 422	E	E			E	E				E			E			E	
	BOT 423	E	E			E		E			E			E	E		E	
	BIO 424	E	E			E		E			E			E	E		E	
EDU 425				E	E			E	E			E	E					
ENG101											I		I	I	I			
FCH101		I	I	I									I	I				
HAF101		I				I							I	I				
LHR101										I	I		I	I				
VOW101								R	R				I	I				

Emphasize....تمكين ( E ) Reinforce....تأكيد ( R ) Introduce .... تقديم ( I )

## Program' Outcomes

Outcomes	code	area
Collection of integrated comprehensive knowledge of the basic principles and theories of biology and theories of education and learning which are necessary for professional preparation .	a1	A
Find the relationship between the theories of Biology, scientific, professional and other areas related to the fields of Biology.	a2	
The latest educational and psychological developments are classified as modern research to find solutions to the issues and increase knowledge in the field of biology	a.3	

Interpretation of systems and regulations of the profession, technical requirements and how to improve them according to the successive changes .	a.4	
Investigates information and analysis study of phenomena related to biology in addition to classroom problems and teaching that faced them and use it to propose innovative solutions based on the theoretical and practical background which are related. And take appropriate decisions	b1	B
Analyze the relationship between the construction and in molecular , cellular, organic and ecological levels and explain the molecular mechanisms regulating metabolism and gene expression	b2	
Reducing the reasons for the relatively complex problems for biology, using a variety forms of information technologies and other resources.	B.3	
Linking knowledge and skills gained academic and professional contexts related to areas of Biology teaching .	B4	
Take the initiative in identifying the issues and problems of classroom and propose constructive solutions in the collective and individual situations.	c1	C
Exercise group's leadership in a variety situations which require innovative responses.	c2	
A positive attitude towards the teaching profession uncovered capabilities faculty and denominated in the same objectively and is committed to ethical and professional values consistent with the nature of society, and take into account the humane treatment of all living organisms in the field of research and laboratory	c.3	
Responsible for self-learning and continuing personal and professional development, using the means of finding new information or necessary to accomplish the tasks assigned to analysis methods	c.4	
Communicate verbally and in writing effectively, by using the forms of the appropriate display of different issues with different recipients	d1	D
Appropriate information and communication technologies used in gathering and interpretation information. Implementation of the teaching situations	d2	
Determine the statistical and mathematical methods relevant when examining the issues and problems, and creatively applied in interpreting the information and propose solutions	d.3	
Mastered the use of laboratory tools and devices in anatomy and conduct practical experiments	e1	E
The renewal examination and draw a microscopic sectors with valid scientific way	e2	

## Chosen courses to measure learning outcomes

College of education in Majmaah  
program:- biology

Academic department: - Biology

Learning outcomes																courses	
E		D			C				B				A				
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1	
E	E			E	E		E			E	E				E	E	Rating vase plants
	E		E			E		E	E			E			E	E	Plant Physiology (1)
E	E		E	E	E		E	E		E	E	E			E	E	(2) Physiology
	E		E	E	E		E		E	E		E			E	E	Flora and Fauna Saudi Arabia
	E		R	R	E			E		E	E	E				E	Insect (2)
				E	E	E		E				R				E	Modern trends in teaching strategies
			E	E	E				E	E		E		E	E		Research Methodology
	E		E	E	E	E					I	E			E	I	Applied Minut Biology
				E	E			E	E			E	E				Field education
E	E			E	E					R	R	R			R	R	Comparative Anatomy of an animal
E	E		E	E	E	E					E	E			E	E	embryology
			E	R	R	E	E	R		R							Production and sources of e-learning

COURSES

Learning outcomes																Learning outcomes and courses		
E		D			C				B				A					
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1	Courses	
	E		E	E	E	E					E	E			E	E		Fungi and plant diseases
I	I	E	E	E	R		E	R		R	R	R				R		Ecology
					E					E	E	E		E	E	E		Applied to inherit
R	E		I		R			E		R	E	R			E	E		Knowledge of algae
E	E		E	E	E		E		E	E		E		E	E	E		Parasitology
	E		R	R	R		R		E	E	E	E		R		R		Arthropods, molluscs and echinoderms skin

## Program' Outcomes

Outcomes	code	area
Collection of integrated comprehensive knowledge of the basic principles and theories of biology and theories of education and learning which are necessary for professional preparation .	a1	A
Find the relationship between the theories of Biology, scientific, professional and other areas related to the fields of Biology.	a2	
The latest educational and psychological developments are classified as modern research to find solutions to the issues and increase knowledge in the field of biology	a.3	
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Investigates information and analysis study of phenomena related to biology in addition to classroom problems and teaching that faced them and use it to propose innovative solutions based on the theoretical and practical background which are related. And take appropriate decisions	b1	B
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Appropriate information and communication technologies used in gathering and interpretation information. Implementation of the teaching situations	d2	
Determine the statistical and mathematical methods relevant when examining the issues and problems, and creatively applied in interpreting the information and propose solutions	d.3	
Mastered the use of laboratory tools and devices in anatomy and conduct practical experiments	e1	E
The renewal examination and draw a microscopic sectors with valid scientific way	e2	

## Timetable for measuring outcomes

College of education in Majmaah  
program:- biology

Academic department: - Biology

Fourth year			Third year			Second year			First year					
S 3	2S	1S	S 3	2S	1S	S 3	2S	1S	S 3	S 2	S 1			
	A1,a2,b2,b3,c2, c4,d1,e1												courses	
		A1,a2,b1,b4,c 1,c3,d2,e1												Rating vase plant s
	A1,a2,b1,b2,b3, A1,a2,b1,b3,b4,													Plant Physi ology Anim
				A1,,b1,b2,b										Flora
		A1,b1,c1,c3,c A2,a3,b1,b3,b 4,c4,d1,d2												Insec Mod
				A1,a2,b1,b 2,c3,c4,d1,										Rese arch Meth Appli ed
	A4,b1,b4,c1,c4, d1													Field of
					B3,c1,c 2,c3,c4, d1.d2									Prod uctio n
				,A2 ,A1,B3,B2, ,B1										Com parat ive
		D2,D1,C4,C3, A1,A2,B1,B2, E1.E2												embr yolog y
	,D2,D1 C4,C3,A1,A2,B1 .B2.E1													Fungi and plant
								E2,E1,D3,D2,D1 ,C4,A1,B1,B2,B 3,C1.,C2						Ecolo gy
				A1,A2,A3,B 1,B2,B3,C3										Appli ed to inher it

Fourth year			Third year			Second year			First year			
S	2S	1S	S	2S	1S	S	2S	1S	S	S	S	
3			3			3			3	2	1	
		A1,A2, B1,B2,B3,C1,C4 ,D1,E1,E2										Knowledge of
		A1,A2,A3,B1,B 3,B4,E1,E2,C2, C4,D1,D2										Parasitology
						A1, A3,B1 ,B3,B4 ,E1, ,C2,C4 ,D1,D 2						Arthropods, molluscs and

**summer semester ( 3S )    Second semester ( 2S )    First semester ( 1S )**



## Matrix of outcomes of each courses in program

College of education in Majmaah  
program:- biology

Academic department: - Biology

Course code :- CHEM111

### COURSE' LEARNING OUTCOMES

1	Describes the thermodynamics terms
2	Present some terms of gas - liquid - solid and their own mathematical laws
3	Devise special cases of material laws and thermal chemistry
4	Formulate the characteristics of the periodic table elements, depending on the electronic structure
5	Bear the responsibility of self-learning in completing tasks and duties
6	Choose different and distinct models to view the topics related to the course
7	Communicate effectively within the workgroups
8	Dealing with the tools , materials and devices laboratory in accordance with the security and safety laws in the lab

Program learning outcomes ( using outcomes codes )																Course learning outcomes	
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2		A1
															x		1
															x	x	2
												x					3
												x					4
							x										5
		x															6
				x													7
	x																8

## Course code:- PHYS111

### COURSE' LEARNING OUTCOMES

1	Know the most basic concepts in classical physics
2	Give a correctly and scientifically description for the objects movement and movements of seismic and wave
3	Differentiate between terms in classical physics
4	Verify the relevant theories related to logical mathematical conclusion
5	Responsible for self-learning and communicate effectively within the team
6	Mastered the use of the Internet to gather information in the interpretation of specific natural phenomena
7	Calling devices and correctly naming and dealing with care and proficiency to maintain the integrity of laboratory instruments
8	Representative graph of experimental results paint with more accurate and comparable from that the experimental results and the properly theoretical

Program learning outcomes ( using outcomes codes )																	Course learning outcomes
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1	
																X	1
															X		2
												X					3
											X	X					4
					X		X										5
			X														6
	X																7
X	X																8

## Course code:- PHYS125

### COURSE' LEARNING OUTCOMES

1	Know the most basic concepts in classical physics
2	Give a correctly and scientifically description for the objects movement and movements of seismic and wave
3	Differentiate between terms in classical physics
4	Verify the relevant theories related to logical mathematical conclusion
5	Responsible for self-learning and communicate effectively within the team
6	Mastered the use of the Internet to gather information in the interpretation of specific natural phenomena
7	Calling devices and correctly naming and dealing with care and proficiency to maintain the integrity of laboratory instruments
8	Representative graph of experimental results paint with more accurate and comparable from that the experimental results and the properly theoretical

Program learning outcomes ( using outcomes codes )																Course learning outcomes	
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2		A1
																X	1
															X		2
												X					3
											X	X					4
					X		X										5
			X														6
	X																7
X	X																8

## Course code:- BOT 122

### COURSE' LEARNING OUTCOMES

1	Recognize the installation of the plant cell and its organelles and functions
2	Comparing the steps divisions Meiosis and Mitosis
3	analyzes the results of many related problems (germination of some seeds and genetic issues
4	Mastered the Academy skills to learn and study the plant kingdom sections .
5	Express her view point with committed of ethics and listen to the other opinion
6	Use modern techniques to search about the required references to do duties and display it.
7	Take into account the precautions to be taken in the laboratory
8	Carry out laboratory experiments and draw conclusions

Program learning outcomes ( using outcomes codes )																Course learning outcomes	
E4	E3	E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4		A3
																	1
																	2
															x		3
														x			4
						x				x							5
					x												6
			x														7
		x	x														8

## Course code:- **BOT 213**

### COURSE' LEARNING OUTCOMES

1	Be familiar with the concept of ecology and environmental system as an integrated whole
2	Characterize the various environmental factors and their impact on biodiversity
3	Explain the various plants adapt to their environments
4	Explain the effect of interactions between the components of the environment on the structure and composition of the ecosystem
5	Classified ways that are the study of plant and animal communities
6	Respond to the collective and cooperative work and share views
7	Mastered the skill of research, analysis and information retrieval
8	Explores the tools and devices laboratory for environmental analysis and measurement

Program learning outcomes ( using outcomes codes )																	Course learning outcomes
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1	
			x								x					x	1
			x													x	2
			x					x								x	3
			x							x	x					x	4
		x	x	x							x	x					5
			x	x			x	x									6
x			x	x	x			x									7
x	x	x	x									x					8

## Course code:- BOT 314

### COURSE' LEARNING OUTCOMES

1	Remember the laws that govern water relations in plants
2	Detriment major and micro mineral elements needed by the plant and the physiological roles and how to determine the absorption and transmission.
3	Explain the processes of photosynthesis and transpiration and the factors affecting the interactions of optical and non-optical path and the installation of carbon.
4	Easily distinguish between different types of lotions , its method of deposition and the mechanism of transmission across membranes
5	Comparing between the different transport processes that occur in plants
6	Show interest to respond with colleagues while doing projects and research
7	Web use in the tasks required after each lecture
8	Apply many laboratory experiments related to the course

Program learning outcomes ( using outcomes codes )																Course learning outcomes		
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2		A1	
					x						x	x					x	1
				x	x					x	x	x						2
			x	x	x						x	x					x	3
										x	x	x						4
											x	x						5
			x	x	x		x	x		x								6
x			x	x	x			x		x	x							7
x			x	x	x		x	x		x								8

## Course code:- BOT 223

### COURSE' LEARNING OUTCOMES

1	.Explains the installation of DNA and the DNA method compounded
2	Apply Mendel's laws of inheritance on the foundations of genetic traits in different organisms.
3	Designe the genetic lineage of some genetic diseases in human history.
4	Comparing the types of sovereignty and gene interaction
5	Investigate modern information related to genetics.
6	.Fluent display and presenting in front of others
7	interested in e-learning system and its various activities.
8	Innovate in the use of models to explain the genetic concepts.

Program learning outcomes ( using outcomes codes )																	Course learning outcomes	
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1		
																	X	1
																X		2
											X							3
					X					X								4
				X														5
		X																6
			X															7
X																		8

## Course code:- BOT 315

### COURSE' LEARNING OUTCOMES

1	Describe a virtual features of the chromosome.
2	Explain models body aberrations of the human person and the ways to identify the locations of genes and painted it .
3	Devise reasons for the differences between chromosomal structural and numerical
4	Control the mutagenic substances and showing their relationship to cancer
5	Showed interest to get ready with female colleagues while doing research and conducting laboratory experiments.
6	Using self-learning skills and assume responsibilities.
7	Mastered of choose the models of suitable presentations.
8	Present microscopically slides attend to examine the promise of natural chromosomes, which have abnormality.

Program learning outcomes ( using outcomes codes )																	Course learning outcomes	
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1		
																	X	1
															X			2
												X						3
											X							4
								X										5
					X													6
				X														7
X																		8



## Course code:- BOT 325

### COURSE' LEARNING OUTCOMES

1	Determine the genetic consequences of inbreeding, outbreeding and hybrid .power
2	explains the types of infertility and its importance in plant breeding
3	Review the foundations of biotechnology and how it is used for human well-being
4	Assess the importance of genetic engineering to human life and the environment
5	Genetic counselling is recommended to avoid the possibility of a genetic defect in the family
6	.Uses bioinformatics to collect data on nuclear acids (DNA, RNA) and proteins
7	.Use self-learning skills and assume responsibilities
8	uses biological information rules to provide means of structural and functional analysis of molecular biology

Program learning outcomes ( using outcomes codes )																	Course learning outcomes
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1	
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1	1
															X		2
														X			3
																X	4
											X						5
												X					6
										X							7
				X	X												8

## Course code:- BOT 323

### COURSE' LEARNING OUTCOMES

1	Recognize the different types of micro-organisms and the environments in which they live
2	Classifies various microbiology activities in the field of industry, soil and water
3	Identify the beneficial microbes and microbes that cause diseases of the human, animal and plant
4	Comparing the various microorganisms that cause food spoilage and pathogenic diseases , plant and animals
5	Explain the role of genetic engineering in applied aspects of Microbiology
6	.Interact collective discussion and have a responsibility to learn self
7	.Use modern techniques to search for the required references to do duties
8	Exercise laboratory experiments to prepare food circles , isolate the various microorganisms , distinction between them and capture and evaluation results

Program learning outcomes ( using outcomes codes )																Course learning outcomes			
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2		A1		
																	X	1	
																			2
																			3
																			4
															X				5
														X					6
							X	X											7
					X	X													8

## Course code:- BOT 222

### COURSE' LEARNING OUTCOMES

1	Recognize the basics of microbiology and science branching from it.
2	Classified bacterial groups depending on the chemical and physical factors
3	Distinguish between and Moving bacteria nonmoving bacteria
4	Compare between different species of bacteria in its look and usability to the different pigments
5	analyzes the results of many chemical and Physical characteristics.
6	Interact with collective discussion and have a responsibility to learn herself
7	Use modern techniques to search for the required references to the do duties
8	Exercise laboratory experiments to prepare food circles , isolate the various microorganisms , distinction between them and capture and evaluation results

Program learning outcomes ( using outcomes codes )																	Course learning outcomes	
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1		
																	X	1
																X		2
																X		3
												X						4
												X						5
											X							6
					X	X												7
		X	X															8

## Course code:- BOT 324

### COURSE' LEARNING OUTCOMES

1	Recognize the growth kinetics in the plant and determine the various factors and mechanisms to reveal the plant organs.
2	Recognize plant hormones and growth regulators and their role in plant tissue culture.
3	analyses the growth phenomenon in plant and to reveal machinery plant Members
4	Explain all movements and deviation that responds to the plant in light of the growth regulators.
5	Characterize plant tissue culture and the most important factors which are affecting it.
6	Interact with collective discussion and have a responsibility to learn herself
7	Use modern techniques to search for the required references to the do duties
8	practiced different experiences growth elsewhere in the plant organs and the effect of organizations growth of it .

Program learning outcomes ( using outcomes codes )																	Course learning outcomes	
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1		
																	X	1
																	X	2
										X	X							3
											X							4
											X							5
					X	X												6
			X	X														7
	X																	8

## Course code:- ZOO 211

### COURSE' LEARNING OUTCOMES

1	Recognize the scientific concept of texture and different tissue types.
2	Determine the causes of the various mutations of each tissue.
3	Find the relationship of Histological and appropriateness of internal organs in the body.
4	Comparing between different types of tissue
5	Share groups during practical lessons and completing quests.
6	Mastered dealing with useful web sites for research and access to the latest research and increase knowledge in the field of specialization.
7	Mastered the use of microscopes to examine slides , identify them and distinguish between them.
8	drawing types of tissue after examined microscopically "

Program learning outcomes ( using outcomes codes )																	Course learning outcomes
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1	
														X	X		1
														X			2
										X							3
										X							4
						X	X										5
		X														X	6
X	X																7
X	X																8

## Course code:- ZOO 313

### COURSE' LEARNING OUTCOMES

1	Identify the composition of the digestive system , the nervous and muscular in animals.
2	Detriment All the functions of the digestive system , the nervous system and muscular of the animals
3	Explain the work of the digestive system , the nervous and muscular mechanism in the light of the known laws of physics and chemical
4	analyses the relationship between the installation of the digestive system , the nervous , muscular and the function of each of them
5	Show enthusiasm to go along with colleagues while doing projects and research
6	Communicate effectively through micro educational situations
7	Conduct their own laboratory experiments of the course
8	Develop skilled performance with continuously way during laboratory experiments topics scheduled

Program learning outcomes ( using outcomes codes )																	Course learning outcomes
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1	
															X	X	1
															X	X	2
												X					3
										X	X	X					4
					X		X	X									5
			X	X													6
X	X																7
X	X																8

## Course code:- ZOO 421

### COURSE' LEARNING OUTCOMES

1	Identify the composition of the cardiovascular system, respiratory , urinary and endocrine.
2	Define the functions of the cardiovascular system , respiratory ,excretory and endocrine organisms
3	Explain the work of the cardiovascular system , respiratory , urinary and endocrine mechanism in the light of the known laws of physics and chemical
4	Decomposition phenomena and problems associated with the work of the cardiovascular system , respiratory , urinary and endocrine
5	Show enthusiasm to go along with colleagues while doing projects and research
6	Communicate effectively through micro educational situations
7	Conduct their own laboratory experiments of the course
8	Develop skilled performance with continuously way during laboratory experiments topics scheduled

Program learning outcomes ( using outcomes codes )																Course learning outcomes	
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2		A1
															X	X	1
															X	X	2
												X					3
										X	X	X					4
					X		X	X									5
			X	X													6
X	X																7
X	X																8

## Course code:- **BIO 415**

### COURSE' LEARNING OUTCOMES

<b>1</b>	Specify the subject of research and its aim to serve learning and society
<b>2</b>	Prepare the integrated plan for the implementation of search and display search results clearly
<b>3</b>	Interpret search results
<b>4</b>	Present some of the solutions to the problems and recommendations of the research
<b>5</b>	Find liberation of the research according to scientific basis and Arabic language and characterized with smooth and clarity style
<b>6</b>	Show a trend towards accepting the opinions of others while doing projects and research
<b>7</b>	Know how to use computer technology and the Internet
<b>8</b>	Innovates In the appropriate presentation models to display the search

<b>Program learning outcomes ( using outcomes codes )</b>																<b>Course learning outcomes</b>	
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2		A1
															X		1
														X	X		2
										X		X					3
										X							4
									X								5
					X												6
			X														7
			X	X													8



## Course code:- ZOO 322

### COURSE' LEARNING OUTCOMES

1	Explains the installation of the internal structure of the circulatory system and the nervous system in some initial chordates and vertebrates
2	Identifies all of the characteristics of the skull - the backbone - belts structure - the structure of the parties - the heart -aljhaz arterial - venous system - the brain .....) for each range of denominations Division chordates
3	Comparing the installation of the internal structure of the league and the nervous system and organ in various denominations chordates Division
4	concludes the reasons for the differences in the composition of the body's systems in various denominations chordates explaining their suitability for different functions
5	Take care of Sensitive live animals treatment in the laboratory
6	Mastered the skill of self-development , take responsibility and active participation in group discussions and accept the opinions of others and respond with colleagues while doing research and conducting experiments
7	Mastered the skill of using of technology and modern technology to gather information, interpret and communicate effectively with verbally and in writing ways
8	Mastered the use of instruments and laboratory equipment in the microscopic examination of sectors and anatomy lab animals in a correct scientific way and write appropriate comment on view

Program learning outcomes ( using outcomes codes )																Course learning outcomes	
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2		A1
															x	x	1
															x	x	2
												x					3
										x	x						4
						x											5
					x												6
			x	x													7
x	x																8

## Course code:- ZOO 312

### COURSE' LEARNING OUTCOMES

1	Chordates Division are classified into several denominations depending on the overall qualities of each community
2	Explains the installation of the overall shape, the outer structure of the digestive tract, respiratory, urogenital in preliminary animal pregnant and some vertebrates
3	Comparing the installation of the exoskeleton, digestive, respiratory, urogenital in different chordates
4	Explain the reasons for the differences in the composition of the body's systems and their suitability for the job that you perform on the basis of scientifically valid
5	Take care of Sensitive live animals treatment in the laboratory
6	Mastered the skill of self-development , take responsibility and active participation in group discussions and accept the opinions of others and respond with colleagues while doing research and conducting experiments
7	Mastered the skill of using of technology and modern technology to gather information, interpret and communicate effectively with verbally and in writing ways
8	Mastered the use of instruments and laboratory equipment in the microscopic examination of sectors and anatomy lab animals in a correct scientific way and write appropriate comment on view

Program learning outcomes ( using outcomes codes )																Course learning outcomes	
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2		A1
															x	x	1
															x	x	2
												x					3
										x	x						4
						x											5
					x												6
			x	x													7
x	x																8

## Course code:- ZOO 411

### COURSE' LEARNING OUTCOMES

1	Describes the histological structure of Mansell and how to configure gametes note and feminine in some vertebrates
2	Explains the stages of embryonic development (cleavage - lining - of organization) in each of the Alsuham, frog, chicken, mammals.
3	Comparing the installation and method of formation of the embryonic stages of each Alsuham, frog, chicken, mammals explaining the reasons for the difference
4	Explore the relationship between the installation of the placenta and its efficiency in various mammalian
5	Take care of Sensitive live animals treatment in the laboratory
6	Mastered the skill of self-development , take responsibility and active participation in group discussions and accept the opinions of others and respond with colleagues while doing research and conducting experiments
7	Mastered the skill of using of technology and modern technology to gather information, interpret and communicate effectively with verbally and in writing ways
8	Mastered the use of instruments and laboratory equipment in the microscopic examination of sectors and anatomy lab animals in a correct scientific way and write appropriate comment on view

Program learning outcomes ( using outcomes codes )																Course learning outcomes	
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2		A1
															x	x	1
															x	x	2
												x					3
											x						4
						x											5
					x												6
			x	x													7
x	x																8

## Course code:- ZOO 321

### COURSE' LEARNING OUTCOMES

1	Describe the mechanism of digestion and output of the circulatory and mechanical breathing in insects and the reasons for the various mutations of the internal organs in different insects.
2	Explains the installation of the nervous system and nerve conduction mechanism
3	Comparing the installation of the reproductive system and methods of reproduction and transformation of the different insects..
4	Explain how to constrict and relax the muscles in the insect.
5	Fluent display and dumping others in front of the presentations and educational films
6	Mastered computer technology and the use of power point, data show and access to useful web sites to increase knowledge of the contents scheduled
7	Use microscopes to examine samples , identify them and distinguish them with drawing through maintaining laboratory instruments by using the correct scientifically way.

Program learning outcomes ( using outcomes codes )																	Course learning outcomes	
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1		
																	X	1
											X						X	2
										X		X					X	3
											X	X					X	4
			X	X	X			X										5
			X		X					X								6
	X																	7

## Course code:- **BIO 424**

### COURSE' LEARNING OUTCOMES

1	Recognize what is meant by flora and fauna ..
2	Define the citizen patterns , animal plant communities ,societies components and its economic importance in Saudi Arabia.
3	Comparing systems and installation the community of Alfona and fluoro.
4	Suggest solutions to overcome the threats facing the Flora and Fauna Kingdom
5	Surveys carried out to study the theories associated to the knowledge of flora and fauna, such as the case of the spread of certain plants and animals in the Kingdom and how to exploit economically.
6	Participate in collaborative teamwork.
7	Fluent in the use of technology in the delivery of information to others, and information such as the Internet and prepare research presentations Technology
8	Gathered plant and animal samples from the environment and classified it.

Program learning outcomes ( using outcomes codes )																	Course learning outcomes
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1	
															X		1
														X	X		2
								X	X						X		3
								X	X		X						4
									X		X				X		5
				X		X											6
		X	X													X	7
X																	8

## Course code:- ZOO 221

### COURSE' LEARNING OUTCOMES

1	Recognize theoretically in an integrated and comprehensive way on the characteristics and classification of the people of arthropods, mollusks and echinoderms.
2	Comparing the different sects each division with examples of each variety of animals
3	Explains breathing , digestion , output mechanism and other vital processes in both animals , arthropod animals molluscs and echinoderms
4	Propose innovative solutions to the problems and issues related to the course (such as environmental pollution and its impact on arthropod , molluscan fauna and Algeldchuquiat
5	Working in a spirit of team work during practical lessons and perform tasks such as research and homework
6	Fluent access to useful web sites for research and obtain the latest practical research and increase knowledge of the contents .
7	Mastered the anatomy of one of the animals and learn about the internal organs and examine samples using microscopes.

Program learning outcomes ( using outcomes codes )																Course learning outcomes	
E2	E1	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2		A1
																	1
										X							2
												X					3
											X		X		X		4
						X		X									5
				X	X												6
X																	7