## **Curricula for the department of Biotechnology**

## The first stage

		T	he first si	tage			
First semester	Second semester						
Subject	Theory hours	Practical hours	Units	Subject	Theory hours	Practical hours	Units
Principles of Biotechnology 1	2	2	3	Principles of Biotechnology 2	2	2	3
Analytical chemistry and instrumental analysis	2	2	3	Organic Chemistry	2	2	3
General Biology 1 (Plant)	2	2	3	General Biology 2 (Animal)	2	2	3
Biophysics	2	2	3	Biostatistics	2		2
Computer 1		2	1	Computer 2		2	1
Human rights	2		1	Freedom and Democracy	2		1
Arabic language \	1		1	Arabic language ₹	1		1
English language 1	1		1	English language 2	1		1
			_				31
		The	e second	stage			
First semester	Second semester						
Biochemistry 1	2	2	3	Biochemistry 2	2	2	3
Microbiology 1	2	2	3	Microbiology 2	2	2	3
Histology and Microtechnique	2	2	3	<b>Animal Physiology</b>	2	2	3
Environmental microbiology	2	2	3	Plant Physiology	2	2	3
Biological control	2	2	3	Phycology	2	2	3
English language	2		2				
		ті	e third s	taga			32
First semester	Second semester						
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Molecular Biology	2	2	3	Microbial genetics	2	2	3
Plant Biotechnology	2	2	3	Food Microbiotechnology	2	2	3
Genes and Biochemical techniques	2	2	3	Antibiotics	2	2	3
Pathogenic bacteria	2	2	3	Immunology	2	2	3
Fermentation Technology	2	2	3	<b>Environmental Biotechnology</b>	2	2	3
Mycology	2	2	3	Nanobiotechnology	2	2	3

				English language	2		2
				Research Methodology	1		1
							39
		Th	e fourth	stage			
First semester	•	Second semester					
Principles of genetic engineering	2	2	3	Applications of genetic engineering	2	2	3
Plant tissue culture	2	2	3	Cytogenetics	2	2	3
Animal tissue culture	2	2	3	Industrial biotechnology	2	2	3
Immunogenetics (Elective)	2	2	3	Genetic diseae and molecular diagnosis (Elective)	2	2	3
Virology and Vaccines (Elective)	2	2	3	Applications of animal tissue culture (Elective)	2	2	3
Research project	1	2	2	Research project	1	2	2
English language	2		2				36
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