



**Benha University**  
**Faculty of Science**



Computing and Bioinformatics

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BSc. Computing and Bioinformatics  
Credited



<b>University Requirements</b>					
<b>University Compulsory Courses: 4 Credit Hours</b>					
<b>First level</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>Theoretical</b>	<b>Practical</b>	<b>Credit Hours</b>	<b>Prerequisite</b>
UR15	English Language (1)	2	—	2	—
UR30	Human Rights and Combating Corruption	2	—	2	—
<b>University Requirements</b>					
<b>University Elective Courses: 4 Credit Hours</b>					
<b>First level</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>Theoretical</b>	<b>Practical</b>	<b>Credit Hours</b>	<b>Prerequisite</b>
40 UR	Biodiversity and Sustainable Development	2	2	2	30 UR
60 UR	Writing and Publishing Scientific Research	1	—	1	—
70 UR	Fundamentals of Communications and Information Technology	1	—	1	—
80UR	Professional Ethics	2	—	2	—
90UR	Laboratory Safety	1	2	2	—
<b>Faculty Requirements</b>					
<b>Faculty Compulsory Courses: 28 Credit Hours</b>					
<b>First level</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>Theoretical</b>	<b>Pract./ Exc.</b>	<b>Credit Hours</b>	<b>Prerequisite</b>



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1101 Mat	General Math	2	- / 2	3	-
1202 Com	Computer Science	2	- / 2	3	1101 Mat
1101 Phy	General Physics(1)	1	2 /	2	-
1204 Phy	General Physics(2)	1	2 / -	2	1101 Phy
1101 Chm	General Chemistry(1)	2	- / -	2	-
1202 Chm	General Chemistry(2)	2	- / -	2	1101 Chm
1103 Chm	Exp. Chemistry (1)	-	3 / -	1	1101 Chm
1204 Chm	Exp. Chemistry (2)	-	3 / -	1	1103 Chm
1101Bot	General Botany (1)	2	2 / -	3	-
1203 Zoo	General Zoology (1)	2	2 / -	3	-
1202 Bot	General Botany (2)	2	2 / -	3	1101Bot
1202 Zoo	General Zoology (2)	2	2 / -	3	1203 Zoo

**Faculty Requirements**

**Faculty Compulsory specialization Courses Courses: 60 Credit Hours**

Course Code	Course Title	Theoretical	Pract.	Credit Hours	Prerequisite
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Bch 2121	Introduction to Biochemistry	2	2	3	-
Chm2123	Instrumental analysis	2	2	3	Chm1101
Mic 2125	Microbiology	2	2	3	Bot1101
Mic 2222	Bacteriology	2	1	2	Bot 1101
Bch 2129	Biochemistry &Metabolism of Carbohydrates	2	2	3	Chm2121
Bch 2224	Biochemistry &Metabolism of Protien	2	2	3	-
Mic 2232	Cell biology & Tissue culture	2	1	2	-
Bch 3141	Biochemistry &Metabolism of Nucleic Acids	2	2	3	Bch2121
Mic3143	Mycology	2	2	3	Bot 1101
Mic3145	Antibiotics	1	1	1	-
Bch3147	Metabolism and Bioenergetics	2	2	3	Bch 2121
Bch3149	Biochemistry &Metabolism of Lipid	2	2	3	Bch 2121
Mic3242	Host parasite relationships	1	-	1	Bot 1101



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Mic 3244	Microbial Physiology	2	2	3	Mic2125
Mic 3246	Microbial Enzymes	2	1	2	Mic2125
Mic3248	Medical Bacteriology	2	1	2	Mic 2222
Mic3250	Virology & Immunology	2	2	3	Mic 2125
Bch4161	Body Fluids & Bio-organ Functions	2	2	3	-
Mic4163	Industrial microbiology	2	-	2	-
Mic4165	Bioinformatics	2	--	2	-
Chm4262	Technology of Water treatment and uses	2	2	3	-
Bch4264	Cancer biology & Immunology	2	2	3	Mic3242
Mic 4266	Applied Microbiology	1	2	2	Mic 3240
Mic4268	Medical Mycology	2	1	2	Mic3139
<b>Faculty Requirements</b>					
<b>Faculty Elective specialization Courses: 28 Credit Hours</b>					
Course Code	Course Title	Theoretical	Pract.	Credit Hours	Prerequisite

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Bch2131	Endocrinology & Biochemistry of Specialized Tissues	2	1	3	-
Bch2133	Digestion, Absorption and Nutrition	2	1	2	-
Bch2234	Biochemistry of Blood	2	2	3	-
Mic 2236	Physiology of microbiology	2	2	3	-
Bot 2238	Medicinal Plants and natural products	2	2	3	-
Bot 3151	phytochemistry	2	2	3	-
Mic 3153	Plant enzyme	2	2	3	-
Mic3155	Genes of Genomes	2	2	3	-
Bot 3252	Mineral nutrition	2	2	3	-
Bch3254	Metabolic Disorder Diseases	2	2	3	-
Bch3256	Microbial Biochemistry	2	2	3	-
Mic3258	Environmental Microbiology	2	2	3	-
Bch4167	Molecular Biology & Radiobiology	2	2	3	-

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Bch4169	Management of Labs and instruments	2	2	3	-
Bch4171	Life Style Diseases	2	2	3	-
Mic4173	Microbial Technology	2	2	3	-
Mic4175	Plant Pathology and biocontrol	2	2	3	-
Bch4177	Clinical Approach to life	2	1	2	-
Bch4270	Genetic Engineering	2	1	2	-
Bch4272	Quality Control	2	1	2	-
Mic4274	Microbial control	2	-	2	-
Mic4276	Bio-nanotechnology	2	-	2	-
Mic4278	Geomicrobiology	2	-	2	-
<b>Faculty Elective outside of specialization Courses: 6 Credit Hours</b>					
Course Code	Course Title	Theoretical	Pract.	Credit Hours	Prerequisite
Mat 2131	Biostatistics	3	--	3	Com 1202
BPh 2226	Biophysical Chemistry	2	2	3	-



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Phy 3260	Radio physics	2	2	3	-
Bot 3156	pollution and its impact on plant life	2	2	3	-
Bot 4179	Antioxidant and vitamins	2	2	3	-
<b>Faculty Graduation requirements: 6 Credit Hours</b>					
Mic4179	Applied & field training		-	3	3
Mic4080 OR Bch4080	Project	-	-	3	3