

Academic Program Description

Review of the Performance of Higher Education Institutions

Academic Program Description

Harnessing Physics, Chemistry and Computer Sciences to study biological phenomena and make use of them in explaining and solving biological problems at various levels and studying life in its diversity and complexity. Also, preparing specialized staff of teachers and graduates in this field using the latest scientific curricula in a way that contributes to community service. In addition to preparing competent scientific staff in the field of Biophysics, combining knowledge and specialization in Biology, Physics and Chemistry and interpreting the results according to scientific equations mathematically and being able to harness this knowledge and benefit from it from both academic and applied aspects serving society and its institutions

The program aimed to:

- 1- Qualifying successful teaching staff in the modern fields of Biology and Physics using the latest scientific curricula and at a distinguished level competing with the corresponding departments in international universities taking into account the continuous updating of curricula to keep pace with scientific progress.
- 2- Boosting students' knowledge and providing them with scientific background in the fields of Biophysics both theoretically and practically. Also, encouraging them to benefit from this knowledge in practical forms to increase their experience and skills and make them more effective in serving the community.
- 3- Encouraging scientific research in the various specializations of the department, whether teaching

staff or students, especially applied research that can be used in all kinds directorates and institutions of society.

- 4- Qualifying numbers of graduates in the field of Biophysics at a high level of scientific competencies standing as a source of support for medical, service, academic and other institutions of society, contributing to the development of these institutions and keeping pace with global progress and development in various related fields.

1- Educational Institution	University of Mosul/ College of Science
2- University Department	Department of Biophysics
3- Name of the academic program	Biophysics Science
4- Name of Certificate	Bachelor of Science
5- Mode of Study	Courses
6- Accreditation Program	ABET
7- Other External effects	-----
8- Date of Description Preparation	16/11/2021
9- Objectives of Academic Program	Access of National Classification
10- Required Education Outputs and Methods of learning and teaching and assessment	Success of Four Years of Study + Graduation Research + Summer Training
A- Knowledge & Understanding	1- Exams 2- Daily Homework
B- Subject-related Skills	1- Ability to work in a multidisciplinary team 2- Ability to communicate constructively
C- Skill of Thinking	1- Discussion 2- Assignments 3- Laboratory Reports 4- Scientific Reports
D- Methods of teaching and Learning	1- Blended learning through Electronic lectures, and Physical attendance lessons and daily

	<p>homework and discussions</p> <p>2- Electronic lectures (pdf), Online Meeting, Videos Uploading, Practical Experiments, Applications, Homework and Scientific Discussions</p>
E- Methods of Assessment	Exams, Daily Homework, Assignments, Discussions, Lab. Reports and Graduation Research
11- General and transferable skills (other skills related to employability and personal development)	<p>1- Ability to work in a multidisciplinary team</p> <p>2- Ability to communicate constructively</p>
12- Planning for Personal Development	Extra-curricular Activity
13-Admission criterion (setting the regulations related to admission to the college or institute)	<p>1- Wish + Average Mark of High School</p> <p>2- Central Admission of Higher Education & Scientific Rsearch</p>
14- most important sources of information about the program	The student's guide for central admission prepared by the ministry
15- Structure of the Program	The program consists of four years (with 8 semesters), i.e. each year there are two semesters

Number of Hours		The Code of Subject	The Subject in English Language	/ Level Semester
Theoretica	Practical			

1					
3	3	SCBP21 F1011	Mechanics	First Level First Semester	
2	3	SCBP21 F1021	Biology I		
3	3	SCBP21 F1031	Chemistry I		
3		SCBP21 F1041	Calculus I		
2	2	SCBP21 F1051	Computer & basic MatLab		
1		SCBP21 F1061	Human right		
2		SCBP21 F1071	Arabic language		
3	3	SCBP21 F1081	Wave & optics		First Level Second Semester
2	3	SCBP21 F1091	Biology II		
3	3	SCBP21 F1101	Chemistry II		
3		SCBP21 F1111	Calculus II		
3	3	SCBP21 F1121	Biomolecules		
1		SCBP21 F1131	Democracy		
2		SCBP21 F1141	English language		
2	3	SCBP22F2011	Electricity & magnetism	Second Level First Semester	
2	3	SCBP22F2021	Modern physics I		
3	3	SCBP22F2031	Microbiology I		
3		SCBP22F2041	Metabolism		
2	2	SCBP22F2051	Bioinformatics I		
1		SCBP22F2061	Health culture		
2	3	SCBP21 F2071	Thermodynamics		Second Level Second Semester
2	3	SCBP21 F2081	Modern physics II		
3	3	SCBP21 F2091	Microbiology II		
3		SCBP21 F2101	Biotechniques		
2	2	SCBP21 F2111	Bioinformatics II		
2	2	SCBP21 F2121	Biostatistics		
2	3	SCBP21 F3011	Cell physiology	Third Level First Semester	
2	3	SCBP21 F3021	Bioelectronics		
2	3	SCBP21 F3031	Photosynthesis		
2	3	SCBP21 F3041	Molecular genetics		
2		SCBP21 F3051	Biophysics & diseases		
2		SCBP21 F3061	Soft condensed matter		
2	3	SCBP21 F3071	Human physiology anatomy &		Third Level
2	3	SCBP21 F3081	Radiation biophysics		

2	3	SCBP21 F3091	Virology	Second Semester
2		SCBP21 F3101	Molecular biophysics	
2	3	SCBP21 F3111	Drugs & antimicrobials	
2		SCBP21 F3121	biomaterials	
2	3	SCMP23F4011	Immunology	Fourth Level First Semester
3		SCMP23F4021	Environmental biophysics	
2	3	SCMP23F4031	Elective course	
2		SCMP23F4041	Nano-biophysics	
2		SCMP23F4051	Medical Biophysics	
2		SCMP23F4061	Membrane biophysics and cell communications	
2		SCMP23-F4071	Medical Imaging	Fourth Level Second Semester
2	3	SCMP23-F4121	Molecular Spectroscopy	
3		SCMP23-F4091	Laser and Its Applications	
2		SCMP23-F4111	Neuro-Biophysics	
2	3	SCMP23-F4041	Biotechnology	
2		SCMP23-F4061	Project Research	
16- Certificates and watches Approved		Bachelor's degree requires (x) credit hours		units 151.5

