Republic of Iraq
Ministry of Higher Education & Scientific Research
Supervision and Scientific Evaluation Directorate
Quality Assurance and Academic Accreditation

Academic Program Specification Form For The Academic

University: Anbar
College : Education for Pure Science
Department : Physics
Date Of Form Completion : 10/6/2021

Prof. Dr. Abdul Rahman Salman. Juma	Assist. Prof.Dr. Harith Kamil Buniya	Prof. Dr. Ali Kalaf Aobaid
Dean's Name	Dean's Assistant For Scientific Affairs	Head of Department
Date: 26/6/2021	Date : 15/6/2021	Date : 14/6/2021
Signature	Signature	Signature

Dr. Hiba Abbas Jasim

Quality Assurance And University Performance Manager

Date: 14/6/2021
Signature

TEMPLATE FOR PROGRAMME SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

PROGRAMME SPECIFICATION

This Programme Specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It is supported by a specification for each course that contributes to the programme.

1. Teaching Institution	University of Anbar
2. University Department/Centre	College of Education for Pure Sciences \ Department of Physics
3. Programme Title	Education in Physical Science
4. Title of Final Award	Bachelor of Science in Physics Education
5. Modes of Attendance offered	Semester
6. Accreditation	Nothing
7. Other external influences	Late start of the academic year for first-year students
8. Date of production	10/6/2021

9. Aims of the Programme

1. Achieving the specified standards for the quality of material, human, technical and financial resources.
2. Providing an efficient administrative cadre that knows its duties and powers in accordance with the work structures and regulations, in which the requirements of the job description are fulfilled.
3. Providing a specialized teaching staff who is fluent in using modern techniques and methods in education with good job satisfaction.
4. Preparing academic programs in accordance with international academic standards and providing their knowledge, training and technical requirements.
5. Preparing students with scientific, practical and educational knowledge that meets the needs of the labor market.
6. Paying attention to scientific research in terms of laboratory, research and researcher in order to achieve a distinguished research reputation locally and globally.
7. Research and professional openness to community institutions to meet their needs and aspirations.
8. Evaluate all individuals and processes to ensure quality performance and continuous improvement

10. Learning Outcomes, Teaching, Learning and Assessment Methods

A. Knowledge and Understanding

A 1- That the student understand physics and its theoretical and applied branches
A2- That the student can teach physics to the intermediate and preparatory stages
A 3- The student understands the individual differences between students
A4- That the student understand the correct foundations of scientific research

B. Subject-specific skills

B1 - That the student be able to work on qualifying himself to become a successful educational and scientific leader
B 2 - to teach the student the correct foundations in order to become a successful teacher of physics
B 3 - That the student learn the correct scientific method in scientific research.
B4 - Enabling students to acquire the skills of using virtual classrooms

Teaching and Learning Methods

- Classroom lectures.
- Reports and research.
- Using a variety of modern teaching methods.
- Practical laboratories

Assessment methods

- The treatment methods using final scores.
- Random and surprise tests.
- Monthly theoretical and practical tests in the taught curriculum.

C. Thinking Skills

C-1. Adopting the method of dialogue between the student and the professor.
C-2.- loving their assigned work
C-3. loving knowledge acuired by them
C-4. Adopting e-learning to provide an interesting and flexible learning environment..

Teaching and Learning Methods

- Classroom lectures.
- Reports and research.
- Using a variety of modern teaching methods.
- Practical laboratories

Assessment methods

1. Monthly theoretical and practical tests in the taught curricula.
2. Duties
3. Class participation

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1- That the student benefit from his learning and embody this in his personal and professional development.

D2- That the student is able to employ the knowledge he receives during the study stage.

D3- That the student benefit from theoretical knowledge in employing the teaching profession and mastering it in a concept-based manner.

Fundamentals of teaching physics.

D4 - Skills of modern technologies in communication, documentation and communication.

Teaching and Learning Methods

1. Field visits to laboratories.
2. Scientific applications in laboratories.
3. Take advantage of graduation research.
4. Present educational contents in virtual classes using multimedia (video, recorded lecture)

Assessment Methods

1. Articles and periodical research
2. The interview
3. Final exams
4. Determining study tasks and duties periodically and regularly in the virtual classroom

11. Programme Structure

Level/ Year	Course or Module Code	Course or Module Title	Weekly hours	
			Lec.	Lab.
First	PHE121	Electricity	2	3
	PHE122	Magnetism	2	-
	PHE123	Mechanic 1	3	3
	PHE124	Mechanic 2	3	3
	PHE125	Optical engineering	3	3
	PHE126	Heat and Properties of Matter	2	-
	PHE127	Mathematics 1	2	-
	PHE128	Liner algebra	2	-
	EPS101	Educational Psychology	2	-
	EPS102	Fundamentals of Education	2	-
	UOA135	Human rights	1	-
	UOA136	Democracy	1	-
	UOA137	Computer science	2	-
	UOA141	Computer science	2	-
	UOA104	English language	2	-
Second	PHE221	Optical physics	3	3
	PHE222	Advance Electric	3	3
	PHE223	Advance magnetic	3	3
	PHE224	Sound and wave motion	2	-
	PHE225	Advance calculus	3	-
	PHE226	Deferential equation	3	-
	EPS202	Growth psychology	2	-
	EPS201	Educational administration	2	-
	EPS211	Methods of Scientific Research	2	-
	PHE227	Healthy physics	2	-
	PHE228	Astronomy physics	2	-
	PHE229	Space physics	2	-
	UOA214	Programming	2	-
	UOA240	English language 2	2	-

Third	PHE321	Atomic physics	3	3
	PHE322	Molecular physics	3	3
	PHE323	Electronics	3	3
	PHE324	Electronic circuit	3	3
	PHE325	Quantum mechanics 1	2	-
	PHE326	Analytical mechanics	2	-
	PHE327	Complex function	2	-
	PHE328	Statistical mechanic	3	-
	PHE329	New and renew energy	2	-
	PHE330	Crystals	2	-
	PHE331	Sets theory	2	-
	EPS 311	Curricula and Methodology	2	
	EPS 312	Educational Counselling and Psychological Health	2	
	UOA340	English language 3	2	
Fourth	PHE421	Solid state physics 1	3	-
	PHE422	Solid state physics 2	3	-
	PHE423	Quantum mechanics 2	2	-
	PHE424	Nuclear physics	3	3
	PHE425	Radiation physics	3	3
	PHE426	Electromagnetic	3	3
	PHE427	Electrodynamics	3	3
	PHE428	Laser physics 1	2	-
	PHE429	Classroom Observation	-	2
	PHE430	Nanotechnology	2	-
	EPS411	Measurement and Evaluation	2	-
	EPS412	Teaching Practicum	2	-
	EPS413	Classroom Observation	-	4
	EPS414	Graduation Research Project	2	-
	UOA440	English language 4	2	-

13. Personal Development Planning

1. Using modern scientific sources.
2. Using rapid communication networks to transfer information such as the Internet.
3. Visits and practical practices in service laboratories.
4. Acquisition of scientific and modern experiences and skills in the field of modern technical communication

14. Admission criteria

1. Admission according to the general and central grade system.
2. Admission to departments is according to the student's desire and is modified.
3. The condition for graduating middle school and the scientific background must be exclusively
4. To require a personal interview with the department.
5. The grade of high school.
6. The carrying capacity of the college

15. Key sources of information about the programme

1. Curriculum books approved by the Scientific Committee of the Faculties of Education for Pure Sciences.
2. Helping books.
3. Books and archaeological resources / sources in the English language.
4. Additional sources from the Internet.
5. The training courses held by the university on e-learning platforms.

Curriculum Skills Map																			
				Programme Learning Outcomes															
Year / Level	Course Code	CourseTitle	Core (C) or Option (O)	Knowledge and understanding				Subject-specific skills				Thinking Skills				General and Transferable Skills (or) Other skills relevant to employability and personal development			
				A1	**A2**	**A3**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**	**D1**	**D2**	**D3**	**D4**
First	PHE121	Electricity	Core	√	√		√		√			√					√		
	PHE122	Magnetism	Core	√	√		√		√			√					√		
	PHE123	Mechanic 1	Core	√	√		√		√			√					√		
	PHE124	Mechanic 2	Core	√	√		√		√			√					√		
	PHE125	Optical engineering	Core	√	√		√		√			√					√		
	PHE126	Heat and Properties of Matter	Core	√	√		√		√			√					√		
	PHE127	Mathematics 1	Core	√	√		√		√			√					√		
	PHE128	Liner algebra	Core	√	√		√		√			√					√		
	EPS101	Educational Psychology	Core			√		√					√	√		√		√	
	EPS102	Fundamentals of Education	Core			√		√					√	√		√		√	
	UOA135	Human rights	Core			√		√		√		√	√	√		√		√	
	UOA136	Democracy	Core			√		√				√	√	√		√		√	
	UOA137	Computer science	Core		√		√	√										√	
	UOA141	Computer science	Core				√	√		√	√				√				√
	UOA140	English language	Core				√	√		√					√				√

Curriculum Skills Map

				Programme Learning Outcomes															
Year / Level	Course Code	CourseTitle	Core (C) or Option (O)	Knowledge and understanding				Subject-specific skills				Thinking Skills				General and Transferable Skills (or) Other skills relevant to employability and personal development			
				A1	**A2**	**A3**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**	**D1**	**D2**	**D3**	**D4**
Second	PHE221	Optical physics	Core	√	√				√			√					√	√	
	PHE222	Advance Electric	Core	√	√				√			√					√	√	
	PHE223	Advance magnetic	Core	√	√				√			√					√	√	
	PHE224	Sound and wave motion	Core	√	√				√			√					√	√	
	PHE225	Advance calculus	Core	√	√				√			√					√	√	
	PHE226	Deferential equation	Core	√	√				√			√					√	√	
	EPS202	Growth psychology	Core			√		√	√			√				√			
	EPS201	Educational administration	Core			√		√	√			√			√	√			
	EPS211	Methods of Scientific Research	Core				√	√	√	√							√		
	PHE227	Healthy physics	Option	√	√				√			√					√		
	PHE228	Astronomy physics	Option	√	√				√			√					√		
	PHE229	Space physics	Option	√	√				√			√					√		
	UOA214	Programming	Core				√	√		√	√				√				√
	UOA240	English language 2	Core				√								√				√

Curriculum Skills Map

				Programme Learning Outcomes															
Year / Level	Course Code	CourseTitle	Core (C) or Option (O)	Knowledge and understanding				Subject-specific skills				Thinking Skills				General and Transferable Skills (or) Other skills relevant to employability and personal development			
				A1	**A2**	**A3**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**	**D1**	**D2**	**D3**	**D4**
Third	PHE321	Atomic physics	Core	√	√				√			√					√		
	PHE322	Molecular physics	Core	√	√				√			√					√		
	PHE323	Electronics	Core	√	√				√			√					√		
	PHE324	Electronic circuit	Core	√	√				√			√					√		
	PHE325	Quantum mechanics 1	Core	√	√				√			√					√		
	PHE326	Analytical mechanics	Core	√	√				√			√					√		
	PHE327	Complex function	Core	√	√				√			√					√		
	PHE328	Statistical mechanic	Core	√	√				√			√					√		
	PHE329	New and renew energy	Option	√	√				√			√					√		
	PHE330	Crystals	Option	√	√				√			√					√		
	PHE331	Sets theory	Option	√	√				√			√					√		
	EPS 311	Curricula and Methodology	Core		√	√		√	√			√	√		√	√	√	√	
	EPS 312	Educational Counselling and Psychological Health	Core			√		√	√			√	√		√	√	√		
	UOA340	English language 3	Core				√	√											√

Curriculum Skills Map

				Programme Learning Outcomes															
Year / Level	Course Code	CourseTitle	Core (C) or Option (O)	Knowledge and understanding				Subject-specific skills				Thinking Skills				General and Transferable Skills (or) Other skills relevant to employability and personal development			
				A1	**A2**	**A3**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**	**D1**	**D2**	**D3**	**D4**
Fourth	PHE421	Solid state physics 1	Core	√	√				√			√					√		
	PHE422	Solid state physics 2	Core	√	√				√			√					√		
	PHE423	Quantum mechanics 2	Core	√	√				√			√					√		
	PHE424	Nuclear physics	Core	√	√				√			√					√		
	PHE425	Radiation physics	Core	√	√				√			√					√		
	PHE426	Electromagnetic	Core	√	√				√			√					√		
	PHE427	Electrodynamics	Core	√	√				√			√					√		
	PHE428	Laser physics 1	Core	√	√				√			√					√		
	PHE429	Classroom Observation	Core	√	√				√		√	√					√		
	PHE430	Nanotechnology	Option	√	√				√			√			√		√		
	EPS411	Measurement and Evaluation	Core		√	√	√		√			√				√	√	√	√
	EPS412	Teaching Practicum	Core		√	√	√	√	√			√	√		√	√	√	√	√
	EPS413	Classroom Observation	Core		√	√	√	√	√			√	√		√	√	√	√	√
	EPS414	Graduation Research Project	Core	√			√	√	√	√			√		√				√
	UOA440	English language 4	Core	√			√	√	√										√