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: University of Anhar

College: College of Education for Pure Science

Department: Chemistry

Date Of Form Completion: 10/6/2021

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Dean's Name

Dean's Assistant ForScientific Affairs Head of Department

Date:26/6/202 Signature

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Quality Assurance And University Performance Manager

Date: 14/6/2621 Signature Hiba 4



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 science- Department of Chemistry
3. Programme Title	Education Chemistry Sciences
4. Title of Final Award	Bachelor of Education Chemistry Sciences
5. Modes of Attendance offered	Quarterly
6. Accreditation	Nothing
7. Other external influences	School application - practical graduation research projects
8. Date of production/revision of this	7.71/1.
specification	

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 staff that knows its duties and powers according to 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

A1. Knowledge and Understanding

- A1. Enable the student to acquire theoretical knowledge of chemistry.
- A2. Empowering the student how to teach and ways of communicating scientific information to students.
- A3. The student's knowledge of the methods of measurement and evaluation and methods of modern teaching methods in chemistry.
- A4. The student is acquainted with the educational material by providing it electronically in the virtual classroom. In addition to enabling the student to know the learning theories related to the ages of students for the secondary school stage.

B. Subject-specific kills

- B1. Gaining knowledge and enriching the student with the methods of laboratory work.
- B2. Orienting the student to the scientific method in solving all scientific problems.
- B3. Knowing the objectives and origins of the art of teaching chemistry.
- B4. Enabling students to acquire the skills of using virtual classrooms

Teaching and Learning Methods

- 1. The method of listening and thinking deeply in order to understand the problem to solve it.
- 2. The method of scientific discussion and meaningful dialogue.
- 3. Adopting the method of monthly and final exams and submitting weekly reports.

Assessment methods

- 1. The treatment method using final scores.
- 2. Random and surprise tests.
- 3. Teaching tasks in the virtual classroom.

C. Thinking Skills

- C1. Adopting the method of dialogue between the student and the professor.
- C2. Interest in research projects and preparing organized reports
- C3. Adopt the method of discussion. (Performance tests and seminars).
- C4. Adopting e-learning to provide an interesting and flexible learning environment.

Teaching and Learning Methods

- 1. Method of application in research laboratories
- 2. Adopting the method of constructive dialogue and discussion
- 3. Adopt the trial-and-error method.
- 4. The adoption of multimedia in the virtual classes (image, text, audio, video)

Assessment methods

- 1. Preparation of the seminar (graduation research)
- 2. Adoption of the grading method as a basis in the evaluation process.
- 3. Adoption of the test method.
- 4. Adopting the method of discussions and dialogues between the students and the professor.
- 5. Create a test task in the virtual classes.
- 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 chemistry.

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

Teaching and Learning Methods

- Field visits in laboratories.
- 2. Scientific application in laboratories.
- 3. Take advantage of graduation research.
- 4. Presentation and presentation of educational content 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. Program	ıme Structure			
I aval/	Course or	Course or ModuleTitle		hours
Level/ Year	Module Code	Course or ModuleTitle	Lec.	Lab.
	CHEM111	Analytical Chemistry 1	۲	۲
	CHEM121	organic chemistry 1	۲	۲
	CHEM131	inorganic chemistry 1	۲	
	CHEM181	Chemical safety and security	۲	-
	CHEM112	Analytical Chemistry 2	۲	۲
	CHEM122	organic chemistry 2	۲	۲
	CHEM132	inorganic chemistry 2	۲	
T2' .	BIO120	Biology	۲	۲
First	EPS101	educational psychology	۲	-
	EPS102	Education principles	۲	-
	UOA140	English language 1	۲	-
	UOA135	Human rights and democracy	۲	-
	UOA137	Arabic language 1	۲	-
	UOA141	Computer	١	۲
	MAT105	Calculus 1	۲	-
	MAT113	Calculus 2	۲	-
	CHEM213	Analytical Chemistry 3	۲	۲
	CHEM223	Organic Chemistry 3	۲	۲
	СНЕМ233	Inorganic Chemistry 3	۲	۲
	CHEM241	Physical Chemistry 1	۲	۲
	CHEM214	Analytical Chemistry 4	۲	۲
	CHEM224	Organic Chemistry 4	۲	۲
	CHEM234	Inorganic Chemistry 4	۲	۲
Second	CHEM242	Physical Chemistry 2	۲	۲
	EPS202	Developmental Psychology	4	-
	EPS201	Educational Management	۲	
	EPS211	Scientific Research Methodolgy	۲	-
	UOA240	Arabic Language 2	۲	-
	UOA241	Computer	١	۲
	MAT	Mathematics	۲	-

	CHEM351	Biochemistry 1	۲	۲
	CHEM325	Organic Chemistry 5	۲	۲
	CHEM331	Inorganic Chemistry 5 (Coordination)	۲	۲
	CHEM341	Physical Chemistry 3	۲	۲
	CHEM361	Industrial Chemistry 1	۲	-
	CHEM352	Biochemistry2	۲	۲
Third	CHEM326	Organic Chemistry 6	۲	۲
	СНЕМ332	Inorganic Chemistry 6 (Coordination)	۲	۲
	CHEM342	Physical Chemistry 4	۲	۲
	CHEM362	Industrial Chemistry 2	۲	-
	EPS311	Curriculum and teaching method	۲	-
	EPS312	Counseling and mental healt	۲	-
	UOA340	English Language 3	۲	-
	CHEM453	Biochemistry 3	۲	-
	CHEM427	Organic identification	۲	۲
	CHEM415	Instrumental Analysis 1	۲	۲
	CHEM445	Physical Chemistry (Quantum)	۲	-
	CHEM463	Industrial Chemistry 3	۲	۲
	CHEM454	Biochemistry 4	۲	-
F 4	CHEM428	Organic identification 2	۲	۲
Fourth	CHEM416	Instrumental Analysis 2	۲	۲
	CHEM446	Physical Chemistry (Quantum)	۲	-
	CHEM464	Industrial Chemistry 4	۲	۲
	EPS411	measuring and evaluating	۲	-
	EPS412	teaching apps	۲	-
	EPS413	school apps	-	ź
	СНЕМ491	Graduation Project	۲	

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 average system.
- 2. Admission to departments is according to the student's desire and is modified.
- 3. It is a condition for a graduate of the preparatory school and the scientific stream exclusively.
- 4. The accepted student's personal and mental integrity and freedom from physical impairments

15. Key sources of information about the programme

- 1. Curriculum books approved by the Sectorial 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	Course CourseTitle		Knowledge and understanding				Subject-specific skills					Thir	ıking Ski	ills	(or)	General and TransferableSkills (or) Other skills relevant to employability and personal development			
			(0)	A1	A2	A3	A4	B 1	B2	В3	B4	C1	C2	С3	C4	D1	D2	D3	D4	
	CHEM111	Analytical Chemistry 1	core	√	V	√		V				√	√			V				
		organic chemistry 1	core		$\sqrt{}$	√		√				√	√			√				
	CHEM131	inorganic chemistry 1	core	√	$\sqrt{}$	√		√				√	√			√				
	CHEM181	Chemical safety and security	Option	V	V	V		V				√	√			1				
	CHEM112	Analytical Chemistry 2	core	√	√	√		V				1	√			V				
	CHEM122	organic chemistry 2	core	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		$\sqrt{}$					$\sqrt{}$							
	CHEM132	inorganic chemistry 2	core	$\sqrt{}$	V	$\sqrt{}$		V				1	√			V				
First	BIO120	Biology	core		V	√		V					1			V		√		
	EPS101	educational psychology	core				√			V				V		V		V		
	EPS120	Education principles	core				1			V				V		√		√		
	UOA140	English language 1	core		$\sqrt{}$						$\sqrt{}$			$\sqrt{}$						
	UOA135	Human rights and democracy	core				√			√				√						
	UOA137	Arabic language 1	core				√				√			V						
	UOA141	Computer	core		V		√				√				√				√	
	METH	Calculus 1	core		√	√			√								√			
	METH	Calculus 2	core		V	√			√								√			

						C	Curricu	ılum Sl	kills M	ap										
										Pro	gramm	e Learr	ing Outo	comes						
Year/ Level	Cada			K ı	Knowledge and understanding				Subject-specific skills				Thinking Skills				General and TransferableSkills (or) Other skills relevant to employability and personal development			
				A1	A2	A3	A4	B 1	B2	В3	B4	C1	C2	С3	C4	D1	D2	D3	D4	
	C.HR.WIZI3	Analytical Chemistry 3	core	V	V	V		V				V	V				V			
	CHEM223	Organic Chemistry 3	core	V	V	V		√				√	$\sqrt{}$				V			
	CHEM233	Inorganic Chemistry	core	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		$\sqrt{}$				$\sqrt{}$	$\sqrt{}$				V			
	CHEM241	Physical Chemistry 1	core	V	1	$\sqrt{}$		$\sqrt{}$				V	$\sqrt{}$				$\sqrt{}$			
	CHEM214	Analytical Chemistry 4	core	V	V	V		V				V	V				V			
	CHEM224	Organic Chemistry 4	core		1	$\sqrt{}$		$\sqrt{}$				$\sqrt{}$	$\sqrt{}$				V			
Second	CHEM234	Inorganic Chemistry 4	core	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		$\sqrt{}$				$\sqrt{}$	$\sqrt{}$				$\sqrt{}$			
Second	CHEM242	Physical Chemistry	core			$\sqrt{}$		$\sqrt{}$				$\sqrt{}$	$\sqrt{}$				$\sqrt{}$			
		Developmental Psychology	core				$\sqrt{}$			$\sqrt{}$		$\sqrt{}$						\checkmark		
	1 DC 1 7/1	Educational Management	core				V			$\sqrt{}$					$\sqrt{}$	V	V	$\sqrt{}$		
		Scientific Research Methodolgy	core				V						V		V		$\sqrt{}$		V	
	UOA240	English Language 2	core												$\sqrt{}$					
	UOA241	Computer	core					√	√				$\sqrt{}$				$\sqrt{}$			

						(Curric	ılum S	kills M	ар										
]	please tick in the relevant	boxes where	indivio	dual Pr	ogramn	ne Lean	rning (Outcom	es are bo	eing ass	essed								
										Pro	gramm	e Lear	ning Out	comes						
Year/ Level	Course Code	CourseTitle	Core (C) or Option (O)	Knowledge and understanding				Subject-specific skills				Thinking Skills				(01	General and TransferableSkills (or) Other skills relevant to employability and personal development			
				A1	A2	A3	A4	B1	B2	В3	B4	C1	C2	С3	C4	D1	D2	D3	D4	
	CHEM351	Biochemistry 1	core	V	$\sqrt{}$	V		V	$\sqrt{}$				V				V			
	CHEM325	Organic Chemistry 5	core	V	V	V		V	V			V	V				V			
	CHEM331	Inorganic Chemistry 5 (Coordination)	core	V	V	V		V	√			V	V				V			
	CHEM341	Physical Chemistry 3	core	V	V	V		V	V			V	V				V			
	CHEM361	Industrial Chemistry 1	core	V	V	V		V	V			V	V				V			
	CHEM352	Biochemistry2	core	V	V	V		V	V			V	V				V			
	CHEM326	Organic Chemistry 6	core	V	V	V		V	V			1	V				V			
Third	СНЕМ332	Inorganic Chemistry 6 (Coordination)	core	V	V	V		V	V			V	V				V			
	CHEM342	Physical Chemistry 4	core	V	V	V		V	V			V	V				V			
	CHEM362	Industrial Chemistry 2	core	√	V	V		V	V			V	V				V			
		Curriculum and teaching methods	core				V			V	V			V	√	V	V	V	V	
		Counseling and mental health	core				V			V				1		V				
	UOA340	English Language 3	core		V						√				√	√			√	

						C	urricu	lum Sk	ills Ma	ıp										
									Pro	gramme	Leari	ning Out	comes							
Year / Level	Course Code	CourseTitle	Code Course Title Option		Knowledge and understanding				Subject-specific skills					Thir	nking Sk	ills	General and TransferableSkills (or) Other skills relevant to employability and personal development			
2010			(O)	A1	A2	A3	A4	B1	B2	В3	В4	C1	C2	С3	C4	D1	D2	D3	D4	
	CHEM453	Biochemistry 3	Core	V	V	$\sqrt{}$		V	$\sqrt{}$								V			
	CHEM427	Organic identification 1	Core	√	V	√		V	√			√	√				√			
	CHEM415	Instrumental Analysis 1	Core	√	V	V		V	√			V	√				√		√	
	СНЕМ445	Physical Chemistry (Quantum)	Core	1	V	V		V	√			√	√				√	V	√	
	CHEM463	Industrial Chemistry 3	Core	V	V	V		V	V			√	V				V	√		
	CHEM454	Biochemistry 4	Core	V	V	√		V	√			√	V				V	√		
	CHEM428	Organic identification 2	Core	V	V	V		V	√			√	√				V			
Fourth	CHEM416	Instrumental Analysis 2	Core	V	V	V		V	√			√	√				√			
	CHEM446	Physical Chemistry (Quantum)	Core	V	V	V		V	√			√	√				√			
	CHEM464	Industrial Chemistry 4	Core	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		$\sqrt{}$	$\sqrt{}$			$\sqrt{}$	$\sqrt{}$				$\sqrt{}$			
	UOA440	English language	Core		$\sqrt{}$	$\sqrt{}$														
	EPS411	measuring and evaluating	Core			V					√			√		V	√			
	EPS412	teaching apps	Core							$\sqrt{}$				$\sqrt{}$			$\sqrt{}$			
	EPS413	school apps	Core							√			$\sqrt{}$	$\sqrt{}$			$\sqrt{}$			
	CHEM491	Graduation Project	Core					$\sqrt{}$			√		√			√	$\sqrt{}$			