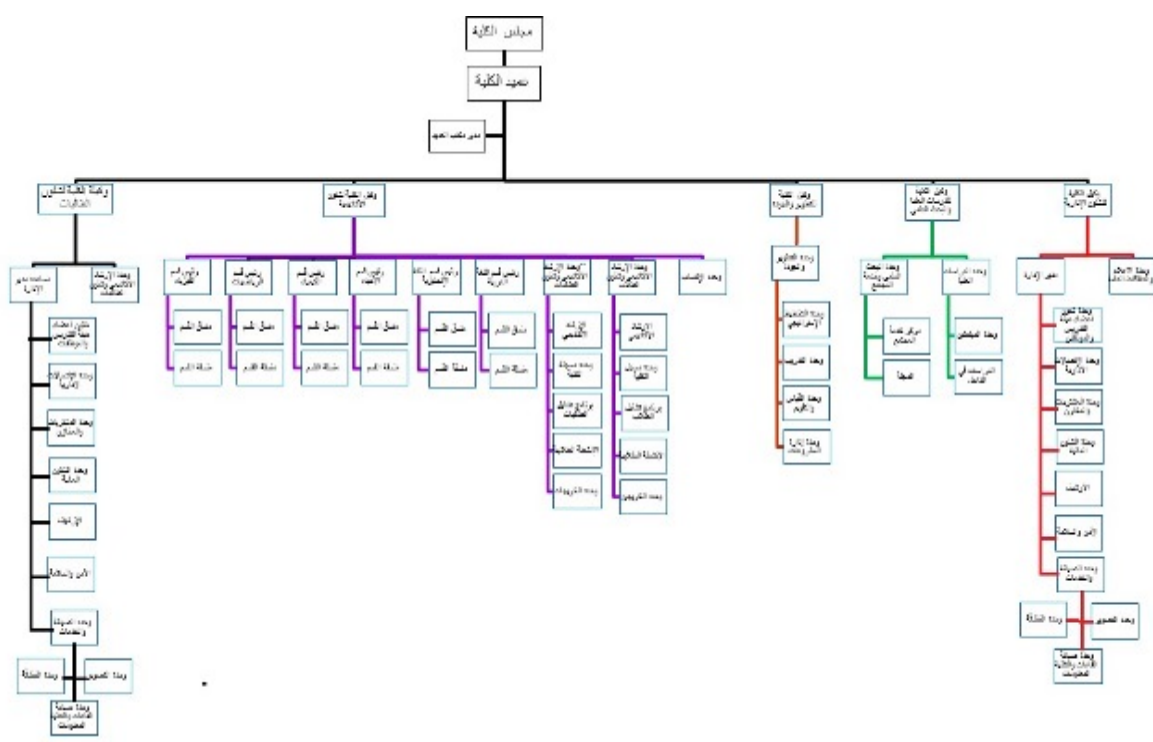
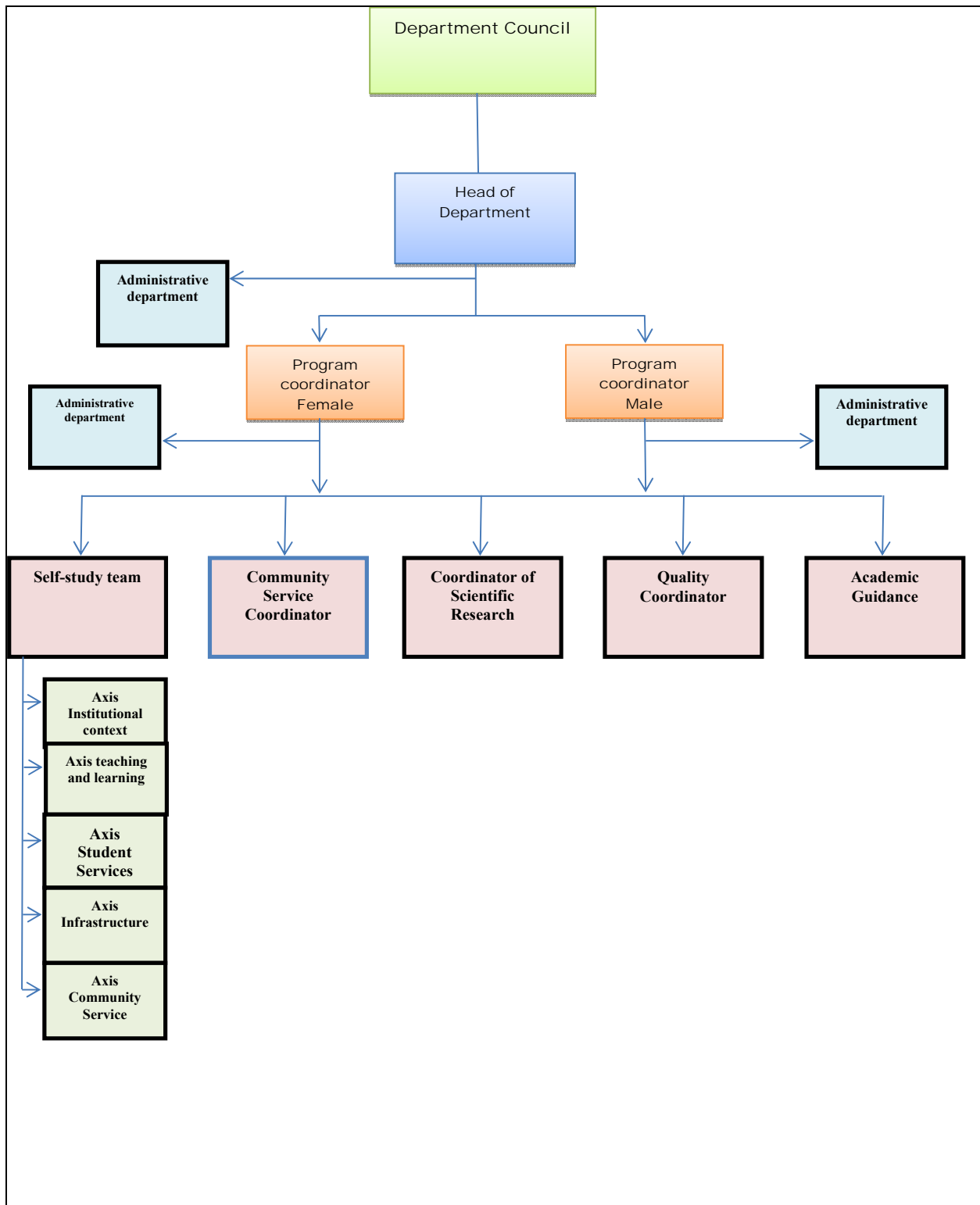


## T4. Program Specification توصيف البرنامج

For guidance on the completion of this template, please refer to Chapter 2, of Part 2 of Handbook 2 Internal Quality Assurance Arrangement and to the Guidelines on Using the Template for a Program Specification in Attachment 2 (b).

1. Institution : <b>Najran University</b>	Date :28/7/1438H
2. College: <b>College of Sciences and Arts</b> /Department: <b>Chemistry Department</b>	
3. Dean: <b>Dr: Mansour Al-Otaibi</b> / Department Head : <b>Dr : Abdul Rahman Al-Muadi</b>	
4. Insert program and college administrative flowchart	





5. List all branches offering this program :
Branch1. .: <b>College of Science and Arts – Sharourah - Female Section</b>

#### A. Program Identification and General Information

1. Program title and code : <b>Chemistry Education (CHEM)</b>
2. Total credit hours needed for completion of the program <b>130 Credit hours.</b>
3. Award granted on completion of the program <b>Bachelor's Degree of Science in Chemistry Education.</b>
4. Major tracks/pathways or specializations within the program (eg. transportation or structural engineering within a civil engineering program or counselling or school psychology within a psychology program): <b>Only one track</b>
5. Intermediate Exit Points and Awards (if any) (eg. associate degree within a bachelor degree program): <b>Not applicable</b>
6. Professional occupations (licensed occupations, if any) for which graduates are prepared. (If there is an early exit point from the program (eg. diploma or associate degree) include professions or occupations at each exit point): <ul style="list-style-type: none"> <li>• <b>Teacher of chemistry at all stages of the pre-university education (primary objective).</b></li> <li>• <b>Teacher in education centers specialized in environmental such as centers of community service and continuing education.</b></li> </ul> <b>Instructor in the departments of chemistry at colleges and universities, public and private</b>

7. (a) New Program ☐ Planned starting date

(b) Continuing Program ☒

Year of most recent major program review

Organization involved in recent major review (eg. internal within the institution)

**A periodic self-evaluation of the program under the supervision of the University Agency for Development and Quality in 1437 AH**

Accreditation review by \_\_\_\_\_

Other <sup>1</sup> : \_\_\_\_\_

8. Name of program chair or coordinator. If a program chair or coordinator has been appointed for the female section as well as the male section, include names of both.  
:Dr : Abdul Rahman Al-Muadi  
Dr. Alsaid Rashad (**College of Sciences & Arts – Najran**)  
Dr. Amal Fathy Saleem (**College of Sciences & Arts – Najran**)

9. Date of approval by the authorized body (MOE)

Campus Locationموقع المقر الجامعي	Approval By الجهة المانحة للموافقة	Dateتاريخ
Main Campus: <b>College of Sciences &amp; Arts – Najran</b>	License to approve the program since the college was affiliated to the Agency for Girls and moved to the university after the establishment of the University of Najran in 1427	Najran in 1427
Branch 1: : <b>College of Sciences and Arts – sharurah</b>	License to approve the program since the college was affiliated to the Agency for Girls and moved to the university after the establishment of the University of Najran in 1427	Najran in 1427
Branch 2: (2) فرع		
Branch 3: (3) فرع		
Branch 4: (4) فرع		

#### B. Program Context

1. Explain why the program was established  
وضح سبب انشاء البرنامج:

- a. Summarize economic reasons, social or cultural reasons, technological developments, national policy developments or other reasons.

Due to The keenness of the department council to create an educational environment for the program to prepare distinguished graduates academically and educationally in the field of chemistry , the Department is committed to achieve the agreement of the chemistry program with the requirements of the national framework of qualifications and meet the requirements of quality assurance standards of NCAAA, as well as a review of the practical and professional aspects in the chemistry program to meet the needs of the labor market and cope with environmental and community changes in the province of Sharurah in terms of rehabilitation of cadres specialized professional cadres in the educational side , in particular, as well as the possibility of the work of graduates in various government and private institutions in the field of chemistry Science. Therefore, the committee developed program and the related to be coincident with ILOs and KPIs of the program.

Poll graduates of the Department of Chemistry, College of Arts and Sciences in Sharourah for the academic year 1433-1434 H. Content of the program and the appropriate to the needs of labor market, ranging between 70-80%, except paragraphs 60% and which are about the suitability of the labor market, and courses of the graduate program is gaining enough skills to compete with graduates of other colleges, in addition to the Courses needed by graduates in labor market, a chromatography methods and computer applications in chemistry and training on the chemistry of different chemical and hardware programs. The study Plan was amended to suit labor market.

The department of Chemistry , College of Arts and Sciences, Sharourah was established and joined the University of Najran University in the academic year 1430-1431H in College of Arts and Sciences. The department aims to graduate distinct and qualified students with the theoretical foundations and application methodologies which enable them to be have a high degree of culture and professionalism abreast of progress and development in chemistry in particular, and to write scientific research of high quality and which have effective impact on the achievement of integrated development in the community with a commitment to standards and international levels in the field of specialization

Locally, Sharourah Governorate has urgent need for professional trained graduates in chemistry to work in the different education stages (Pre- university education).

Economically:

- Rely on local cadres (graduates) in teaching positions at the stages of pre - university education.
- Meet the urgent needs of the labor market for graduates , particularly in the field of education in the Ministry of Education
- Work in government and private institutions and departments / relevant scientific centers in the field of Chemistry.
- The elimination of unemployment through the graduation of specialized professional staff.

Socially and culturally:

1. Keeping pace with the development requirements and
2. strengthening the contribution of community service through the dissemination and raising environmental awareness.
3. Definitioning of the community of the benefits of the use of modern techniques for Community Service and Environmental Development
4. Stimulating the demand for higher education
5. Follow-up of technical developments during the graduation of specialized cadres in the field of chemistry.
6. Developing of belonging and loyalty to the homeland by providing suitable job opportunities.

Professional occupations for which graduates are prepared can be summarized as follows:.

Educational branch:

- Teacher of chemistry at all stages of the pre-university education (primary objective).
- Teacher in education centers specialized in environmen such as centers of community service and continuing education.
- Instructor in the departments of chemistry at colleges and universities, public and private

b. Explain the relevance of the program to the mission and goals of the institution.

Important elements of Najran University mission	Relevance of the program
To provide distinctive education that meets the needs of society and the labor market.	The program aims to provide the community with qualified graduates in the field of chemistry. Curriculum and study plan of the program were designed to meet the needs of both the society and job market, reviews and periodic improvements are generally based on meeting of those needs.
To contribute effectively to the sustainable development through applied research, the optimal use of modern technologies	The program offers a variety of research activities aim to improve the education process, improve qualifications of the students and offer up to date scientific information via its well-constructed set of courses.
To active partnership at the local, regional and global levels.	The program offers an integrated community service via participation in activities of the ministry of education.

2. Relationship (if any) to other programs offered by the institution/college/department.

a. Does this program offer courses that students in other programs are required to take?

Yes نعم ☒

No لا ☐

If yes, what has been done to make sure those courses meet the needs of students in the other programs?

- **Joint committees are formed to review the course requirements and learning outcomes periodically (Review meeting each year, and a major review once every three years).**
- **The program participates in multiple courses in the College departments in both the women's and men's side, by being offers by some courses for some departments in the College, such as mathematics and computer, also the other departments in the College serve the program by teaching some courses , such as the Department of education and psychology, Arabic language, Islamic studies, English, physics, math, and biology.**

b. Does the program require students to take courses taught by other departments?

Yes نعم ☒

No لا ☐

If yes, what has been done to make sure those courses in other departments meet the needs of students in this program?

- **Explore the professional requirements for the program through employers' surveys and interviews.**
- **Joint committees are formed with other academic programs and industries to review the course requirements periodically.**
- **Reviewing the course specification and discussing it at the level of the department committee before approval.**

<p>3. Do students who are likely to be enrolled in the program have any special needs or characteristics? (eg. Part time evening students, physical and academic disabilities, limited IT or language skills).</p> <p>Yes نعم <input type="checkbox"/></p> <p>No لا <input checked="" type="checkbox"/></p>
<p>4. What modifications or services are you providing for special needs applicants?</p> <p>Not applicable</p>

**C. Mission, Goals and Objectives :**



Program Mission Statement (insert) :

**Preparation of teachers in the field of chemistry with high efficiency educationally and scientifically through high-quality an educational program , teaching staff excellence , in a stimulating environment for learning and creativity..**

List program goals (e.g. long term, broad based initiatives for the program, if any)

Goals:

1. Provide the community with a distinctive cadres in the field of chemistry to work in the field of teaching.
2. Provide a distinct educational program consistent with quality standards and achieve the requirements of the job market
3. Providing a stimulating learning environment for learning and creativity.

**Objectives:**

1. Preparing qualified cadres in the field of chemistry to work in the field of teaching and meet the needs of the community.
2. Design a high quality educational program that integrates all the components and activities of the educational process
3. Giving students the knowledge, cognitive and technical skills that enable them to work in the field of teaching.
4. Providing students with basic concepts, scientific and applied theories in the field of chemistry.
5. Promoting ethics of chemist profession among students through culture and Islamic values.
6. Continuous improvement of the learning environment to keep pace with modern developments in the field of teaching and learning.

3. List major objectives of the program within to help achieve the mission. For each measurable objective describe the measurable performance indicators to be followed and list the major strategies taken to achieve the objectives.

Measurable objectives	Major strategies	Measurable performance indicators
Preparing qualified cadres in the field of chemistry to work in the field of teaching and meet the needs of the community.	<ul style="list-style-type: none"> <li>Processing laboratories and halls with the latest means of learning</li> <li>Attracting faculty members with high efficiency.</li> <li>Make the educational objectives and intended learning outcomes (ILOs) for each course, to be consistent with the objectives and learning outcomes of the program.</li> </ul>	<ul style="list-style-type: none"> <li>Percentage of the market working satisfaction for the skills of graduates within 6 months of employment by 70%.</li> <li>Percentage of the vocational training views of satisfaction for students' skills by 75%.</li> </ul>
<ul style="list-style-type: none"> <li>Design a high quality educational program that integrates all the components and activities of the educational process.</li> </ul>	<ul style="list-style-type: none"> <li>Internal and external audit of the program by specialists in the academic specialization and quality from both inside and outside the university.</li> <li>Use of the internal audit system on evaluation systems used in the program.</li> </ul>	<ul style="list-style-type: none"> <li>Percentage of decisions that have been measuring learning outcomes have not less than 85%.</li> </ul>
<ul style="list-style-type: none"> <li>Giving students the knowledge, cognitive and technical skills that enable them to work in the field of teaching..</li> </ul>	<ul style="list-style-type: none"> <li>Conduct a comprehensive inventory of the skills required for the educational.</li> <li>Revise descriptions of courses to enhance practical</li> </ul>	<ul style="list-style-type: none"> <li>Percentage of employers satisfaction for the graduates working of the program skills</li> </ul>

	<p>and analytical skills.</p> <ul style="list-style-type: none"> <li>• Conduct surveys of stakeholders in the education and business sectors to determine the level of skills of graduates.</li> <li>• Update labs and software in line with the mission of the program.</li> </ul>	by 70%.
. Providing students with basic concepts, scientific and applied theories in the field of chemistry.	<ul style="list-style-type: none"> <li>• Update the current status of the laboratories and the instrumental.</li> <li>• Upgrading of laboratories to keep pace with modern development in Chemistry</li> <li>• Updating learning resources for the program to keep space with the modern developments in chemistry.</li> </ul>	<ul style="list-style-type: none"> <li>• Percentage of student satisfaction on quality of performance in the teaching of science courses by 60%.</li> <li>• Percentage of student satisfaction program on chemistry labs and equipment which provided by the university, by 70%.</li> </ul>
Promoting ethics of chemist profession among students through culture and Islamic values	<ul style="list-style-type: none"> <li>• Review the description of courses related to ethics consistent with the mission of the program</li> <li>• Strengthen religious faith and national belonging among students and during the teaching of courses.</li> </ul>	<ul style="list-style-type: none"> <li>• Percentage of students drop referred to disciplinary Councils by less than 10%.</li> <li>• The success percentage of</li> </ul>

	<ul style="list-style-type: none"> <li>• Spreading the culture of acquiring social and ethical responsibility in line with the mission of the program.</li> </ul>	students in the decisions of the Islamic culture by 80%.	
Continuous improvement of the learning environment to keep pace with modern developments in the field of teaching and learning.	<ul style="list-style-type: none"> <li>• Providing modern learning resources</li> <li>• Increasing faculty members who hold a Ph.D with high efficiency.</li> <li>• Access to modern scientific researches in the area of specialization and use them in the development of the program and its courses.</li> <li>• Work to give the student the ability to perform research through scientific research projects within the program courses.</li> </ul>	<ul style="list-style-type: none"> <li>• percentage of faculty members Satisfaction form instruments and tools laboratory in program 70%</li> <li>• percentage of student satisfaction to learning resources 75%.</li> </ul>	

#### D. Program Structure and Organization

##### 1. Program Description:

List the core and elective program courses offered each semester from Prep Year to graduation using the below Curriculum Study Plan Table (A separate table is required for each branch IF a given branch/location offers a different study plan).

A program or department manual should be available for students or other stakeholders and a copy of the information relating to this program should be attached to the program specification. This information should include required and elective courses, credit hour requirements and department/college and institution requirements, and details of courses to be taken in each year or semester.

### Curriculum Study Plan Table

#### Curriculum Study Plan Table

\* Prerequisite – list course code numbers that are required prior to taking this course.

Prerequisite – list course code numbers that are required prior to taking this course.						
Level	Course Code	Course Title	Required or Elective	*Prerequisite courses	Credit Hours	College or Department
Level 1 المستوى (1)	111ISL-2	Introduction to Islamic culture1	Required	-	2	Islamic studies Department
	201Arab-2	Arabic Language skills		-	2	Arabic Department
	110 Edu-2	Fundamentals of Education		-	2	Education Department
	101Chem-4	General Chemistry (1)		-	4	Chemistry Department
	102Eng-3	Linguistic texts		-	3	English Department
	101Biol-4	General Biology		-	4	Biology Department
	Total				17	
Level 2 المستوى (2)	112ISL-2	Introduction to Islamic Culture 2	Required		2	Islamic studies Department
	202Arab-2	Arabic Writing			2	Arabic Department
	101Phis-4	Introduction to Physics			4	Physics Department
	151syc-2	Educational Evaluation			2	Education Department
	101Math-3	Calculus1			3	Mathematic Department
	103Chem-4	General Chemistry			4	Chemistry Department

Level	Course Code	Course Title	Required or Elective	*Prerequisite courses	Credit Hours	College or Department
	<b>Total</b>				<b>17</b>	
<b>Level 3</b> المستوى (3)	113Isl-2	Islamic Culture 3	<b>Required</b>		2	Islamic studies Department
	114Math-3	Integration and Differential Equations		101Math-3	3	Mathematic Department
	245Chem-4	Organic Chemistry 1		101Chem-4	4	Chemistry Department
	251Chem-3	Qualitative Analytical Chemistry		101Chem-4	3	Chemistry Department
	221chm-2	Chemistry of main group elements		103Chem-4	2	Chemistry Department
	221syc-3	Educational Psychology			3	Education Department
	<b>Total</b>				<b>17</b>	
<b>Level 4</b> المستوى (4)	114Isl-2	Islamic culture 4	<b>Required</b>		2	Islamic studies Department
	246Chem-4	Organic Chemistry 2		245Chem-4	4	Chemistry Department
	253Chem-4	Quantitative chemical Analysis			4	Chemistry Department
	230Curr-2	Curriculum			2	Education Department
	369Syc-2	Guidance and Psychological Counseling			2	Education Department
	230Chem-3	Physical Chemistry		101Chem-4	3	Chemistry Department
	<b>Total</b>				<b>17</b>	
<b>Level 5</b> المستوى (5)	211 Chm-2	Quantum Chemistry-1		103Chm-4 114Math-3	2	Chemistry Department
	211Curr-2	Computer in Education			2	Education Department
	231Chm-2	Physical chemistry-2			2	Chemistry Department
	321Chm-4	Transition metal		221Chm-2	4	Chemistry

Level	Course Code	Course Title	Required or Elective	*Prerequisite courses	Credit Hours	College or Department
		chemistry				Department
	334Chm-2	Physical Chemistry laboratory			2	Chemistry Department
	343Chm-2	Physical Organic Chemistry-3		245Chm-4	2	Chemistry Department
	352Edu-2	School Administration			2	Education Department
	Total				16	
Level 6 المستوى (1)	322Chm-2	Lanthanides and Nuclear Chemistry		221Chm-2	2	Chemistry Department
	331Chm-3	Principles of Chemical Kinetics		230Chm-3	3	Chemistry Department
	333Chm-2	Photo and radiation Chemistry		103Chm-4	2	Chemistry Department
	341Curr-3	Educational Technology			3	Education Department
	344Chm-2	Organic Chemistry4		246Chm-4	2	Chemistry Department
	345 Chm-2	Preparation of Organic Compounds Laboratory		246Chm-4	2	Chemistry Department
	253Edu-2	Educational supervision			2	Education Department
	360 Chm-3	Biochemistry-1			3	Chemistry Department
	Total				19	
Level 7 المستوى (1)	332Chm-2	Physical Chemistry-3			2	Chemistry Department
	354Curr-3	Methods of Teaching Science			3	Education Department
	360 Edu-2	Environmental Education			2	Education Department
	421 Chm-2	Organometallic Chemistry		246Chm-4 321Chm-4	2	Chemistry Department

Level	Course Code	Course Title	Required or Elective	*Prerequisite courses	Credit Hours	College or Department
	423 Chm-2	Molecular Spectroscopy		321Chm-4	2	Chemistry Department
	444Chm-2	Organic Chemistry5(Reaction Mechanism)		343Chm-2	2	Chemistry Department
	346 Chm-2	Organic Chemistry laboratory		343Chm-2	2	Chemistry Department
	451Chm-3	Instrumental Analysis		345Chm-2	3	Chemistry Department
	Total				18	
4 <sup>th</sup> Year Semester 2	476Curr-8	practicum	Required		8	Education Department

**2. Required Field Experience Component (if any, e.g. internship, cooperative program, work experience).**

Summary of practical, clinical or internship component required in the program. Note: see Field Experience Specification.

**a. Brief description of field experience activity**

- 1- Field experience is applied in the second semester of the fourth year of the program, and the number of credit hours is 8 hours for a full semester, the student attends five days a week at a rate of 5 hours per day, and the actual number of hours is 25 hours weekly.**
- 2- The student applies the knowledge, teaching strategies and evaluation studied.**
- 3- The student will be responsible for classroom management.**
- 4- Evaluation of the student by the supervisors of the Department of Education and Chemistry, and an external supervisor from the school administration, to verify ability to perform the process of teaching well.**

**b. At what stage or stages in the program does the field experience occur? (eg. year, semester)**  
**Field experience is applied in the second semester of the fourth year of the program.**



c. Time allocation and scheduling arrangement. (eg. 3 days per week for 4 weeks, full time for one semester)
<b>1- Field experience is applied in the second semester of the fourth year of the program, and the number of credit hours is 8 hours for a full semester, the student attends five days a week at a rate of 5 hours per day, and the actual number of hours is 25 hours weekly.</b>
d. Number of credit hours (if any)
<b>8 Credit hours</b>

### 3. Project or Research Requirements (if any)

Summary of any project or thesis requirements in the program. (Other than projects or assignments within individual courses) (A copy of the requirements for the project should be attached.)
a. Brief description: a. Brief description <b>Not applicable</b>
b. List the major intended learning outcomes of the project or research task. <b>Not applicable</b>
c. At what stage or stages in the program is the project or research undertaken? (e.g. level) <b>Not applicable</b>
d. Number of credit hours (if any) (: <b>Not applicable</b>
e. Description of academic advising and support mechanisms provided for students to complete the project. <b>Not applicable</b>
f. Description of assessment procedures. (including mechanism for verification of standards) <b>Not applicable</b>

### 4. Learning Outcomes in Domains of Learning, Assessment Methods and Teaching Strategy

Program Learning Outcomes, Assessment Methods, and Teaching Strategy work together and are aligned. They are joined together as one, coherent, unity that collectively articulate a consistent agreement between student learning and teaching.

The *National Qualification Framework* provides five learning domains. Learning outcomes are required in the first four domains and sometimes are also required in the Psychomotor Domain.

On the table below are the five NQF Learning Domains, numbered in the left column.

**First**, insert the suitable and measurable learning outcomes required in each of the learning domains. **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each program learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process.

	NQF Learning Domains and Learning Outcomes	Teaching Strategies	Assessment Methods
<b>1.0</b>	<b>Knowledge</b>		
1.1	Explanation the theories and the properties of reactions, methods of preparation, nomenclature, separation and quantification of inorganic compounds.	▪ The lecture	▪ The periodic tests
1.2	determines the types and properties of organic compounds and the mechanics of their reactions and methods of preparation and detection.	▪ The discussion	▪ The final test
1.3	Mentioned the basic knowledge of educational, Language and religious decisions	▪ The duties and costs of individual and collective	▪ The discussion
1.4	<ul style="list-style-type: none"> <li>Mentioned the basic scientific knowledge OF sciences physics , mathematics, Biology and related to science of chemistry</li> </ul>	▪ The self education  ▪ Cooperative education	▪ Submission of reports.
<b>2.0</b>	<b>Cognitive Skills</b>		
2.1	Uses educational and linguistic concepts and information acquired in the field of specialization	▪ The lecture	▪ The theoretical , practical and oral

	NQF Learning Domains and Learning Outcomes	Teaching Strategies	Assessment Methods
2.2	Explains spectral measurements, physical and chemical properties, mechanical interaction, scientific theories related to organic and inorganic compounds, analysis and methods of separation	<ul style="list-style-type: none"><li>▪ The exercises and applications to solve the problems of collective education</li><li>▪ The duties</li><li>▪ Writing reports</li></ul>	<p>exams</p> <ul style="list-style-type: none"><li>▪ Evaluation reports and the duties</li><li>▪ Field Training Evaluation</li></ul>
2.3	apply the laws and nomenclature rules of the different types of reactions organic and inorganic in a proper and safe manner		
2.4	Applied knowledge and theories in physics, biology and mathematics in the field of chemistry.		
3.0	Interpersonal Skills & Responsibility		
3.1	works in groups and teams in a cooperative and effective manner with others.	<ul style="list-style-type: none"><li>▪ The lectures</li><li>▪ The self education</li><li>▪ Cooperative education</li><li>▪ The individual and collective duties solve problems</li></ul>	<ul style="list-style-type: none"><li>▪ The theoretical and practical exams</li><li>▪ Project evaluation</li><li>▪ The duties</li><li>▪ The exercises and applications</li></ul>
3.2	Committed to duties and responsibilities in the ethics of the profession.		
3.3	depend on himself and has the ability to self-learning and personal and professional development		
4.0	Communication, Information Technology, Numerical		
4.1	Communicates effectively with others, with team or colleagues	<ul style="list-style-type: none"><li>▪ Education through the peer</li><li>▪ Provide the lectures</li><li>▪ The exercises</li></ul>	<ul style="list-style-type: none"><li>▪ Exams</li><li>▪ Evaluation reports and the duties</li></ul>
4.2	Uses modern technology and best practices in the field of teaching and research chemistry		

	NQF Learning Domains and Learning Outcomes	Teaching Strategies	Assessment Methods
4.3	Using statistical and statistical software in chemistry to analyze data, obtain results and write reports	<ul style="list-style-type: none"> <li>Submission of reports</li> <li>The research</li> </ul>	<ul style="list-style-type: none"> <li>Field training evaluation.</li> <li>Graduation Project</li> </ul>
<b>5.0</b>	<b>Psychomotor</b>		
	Non		

### Program Learning Outcome Mapping Matrix

Identify on the table below the courses that are required to achieve the program learning outcomes. . Insert the program learning outcomes, according to the level of instruction, from the above table below and indicate the courses and levels that are required to teach each one; use your program's course numbers across the top and the following level scale.

Levels:

I = Introduction

P = Proficient

A = Advanced

(see help icon)

Course Offerings	113 Ic-2	101 Phys-4	101 Math-3	202 Arab-2	103 Chem-4	151 Psy-2	112 Ic-2	101 Bio-4	101 Chem-4	110 Edu-2	102 Eng-3	201 Arab-2	111 Ic-2
NQF Learning Domains and Learning Outcomes													

1.0	Knowledge													
1.1	Explanation the theories and the properties of reactions, methods of preparation, nomenclature, separation and quantification of inorganic compounds.						A				A			
1.2	determines the types and properties of organic compounds and the mechanics of their reactions and methods of preparation and detection.						I				I			
1.3	Mentioned the basic knowledge of educational, Language and religious decisions		A	A	A	P			A	A		A		
1.4	Mentioned the basic scientific knowledge OF sciences physics , mathematics, Biology and related to science of chemistry							A					A	A
2.0	Cognitive Skills													
2.1	Uses educational and linguistic concepts and information acquired in the field of specialization	A	A	P	P			P	P		A			P
2.2	Explains spectral measurements, physical and chemical properties, mechanical interaction, scientific theories related to organic and inorganic compounds, analysis and methods of separation					P				P				
2.3	apply the laws and nomenclature rules of the different types of reactions organic and inorganic in a proper and safe manner					I				I				
2.4	Applied knowledge and theories in						P					P	A	

	physics, biology and mathematics in the field of chemistry.													
<b>3.0</b>	<b>Interpersonal Skills &amp; Responsibility</b>													
3.1	works in groups and teams in a cooperative and effective manner with others.		I		I	I	I			I	I		I	
3.2	Committed to duties and responsibilities in the ethics of the profession.	I						I	I					I
3.3	depend on himself and has the ability to self-learning and personal and professional development			I								I		
<b>4.0</b>	<b>Communication, Information Technology, Numerical</b>													
4.1	Communicates effectively with others, with team or colleagues	I	I	P				I			I			I
4.2	Uses modern technology and best practices in the field of teaching and research chemistry													
4.3	Using statistical and statistical software in chemistry to analyze data, obtain results and write reports					I				I		I	I	
<b>5.0</b>	<b>Psychomotor</b>													

Course Offerings		114 Math-3	221 Chem-2	245 Chem-3	251 Chem-4	221 Psy-3	230 Chem-3	114 Ic-2	253 Chem-4	246 Chem-4	230 Curr-2	369 Psy-2	211 Chem-2	211 Curt-2
NQF Learning Domains and Learning Outcomes														
1.0	Knowledge													
1.1	Explanation the theories and the properties of reactions, methods of preparation, nomenclature, separation and quantification of inorganic compounds.		A		A		A		A	A			A	
1.2	determines the types and properties of organic compounds and the mechanics of their reactions and methods of preparation and detection.			A										
1.3	Mentioned the basic knowledge of educational, Language and religious decisions					P		A			A	P		P
1.4	Mentioned the basic scientific knowledge OF sciences physics , mathematics, Biology and related to science of chemistry	A												
2.0	Cognitive Skills													
2.1	Uses educational and linguistic concepts and information acquired in the field of specialization					P		P			P	A		P
2.2	Explains spectral measurements, physical and chemical properties, mechanical interaction, scientific theories related to organic and inorganic compounds, analysis and methods of separation		A	A	A		A		A	P			A	

2.3	apply the laws and nomenclature rules of the different types of reactions organic and inorganic in a proper and safe manner		P	P	P				P	A				
2.4	Applied knowledge and theories in physics, biology and mathematics in the field of chemistry.	P												
<b>3.0</b>	<b>Interpersonal Skills &amp; Responsibility</b>													
3.1	works in groups and teams in a cooperative and effective manner with others.			I								I		I
3.2	Committed to duties and responsibilities in the ethics of the profession.							I			I			
3.3	depend on himself and has the ability to self-learning and personal and professional development	I			I	I	I					I		
<b>4.0</b>	<b>Communication, Information Technology, Numerical</b>													
4.1	Communicates effectively with others, with team or colleagues					I			I	I		I		I
4.2	Uses modern technology and best practices in the field of teaching and research chemistry										P		I	P
4.3	Using statistical and statistical software in chemistry to analyze data, obtain results and write reports	I		I	I		I		P	I				
<b>5.0</b>	<b>Psychomotor</b>													
5.1														



Course Offerings		352Edu-2	231 Chem-2	334 Chem-2	321Chem-4	343 Chem-2	322 Chem-2	331 Chem-3	341 Curt-3	353 Edu-2	333Chem-2	345 Chem-2	344 Chem-2	360 Chem-3
NQF Learning Domains and Learning Outcomes														
<b>1.0</b>	<b>Knowledge</b>													
1.1	Explanation the theories and the properties of reactions, methods of preparation, nomenclature, separation and quantification of inorganic compounds.		A	P	A		P	A			A			
1.2	determines the types and properties of organic compounds and the mechanics of their reactions and methods of preparation and detection.					A						P	P	P
1.3	Mentioned the basic knowledge of educational, Language and religious decisions	P							P	A				
1.4	Mentioned the basic scientific knowledge OF sciences physics , mathematics, Biology and related to science of chemistry													
<b>2.0</b>	<b>Cognitive Skills</b>													
2.1	Uses educational and linguistic concepts and information acquired in the field of specialization	A							P	P				
2.2	Explains spectral measurements, physical and chemical properties, mechanical interaction, scientific theories related to organic and inorganic compounds,		A	P	A	A	P	P			A	I	A	A

	analysis and methods of separation													
2.3	apply the laws and nomenclature rules of the different types of reactions organic and inorganic in a proper and safe manner			I	I	P	A	P			I	A	I	I
2.4	Applied knowledge and theories in physics, biology and mathematics in the field of chemistry.													
<b>3.0</b>	<b>Interpersonal Skills &amp; Responsibility</b>													
3.1	works in groups and teams in a cooperative and effective manner with others.			I	I			I		I		I		I
3.2	Committed to duties and responsibilities in the ethics of the profession.	I								I				
3.3	depend on himself and has the ability to self-learning and personal and professional development	I	I				I		I		I		I	
<b>4.0</b>	<b>Communication, Information Technology, Numerical</b>													
4.1	Communicates effectively with others, with team or colleagues	I								I		I		
4.2	Uses modern technology and best practices in the field of teaching and research chemistry					I			A		I			
4.3	Using statistical and statistical software in chemistry to analyze data, obtain results and write reports		I	I	I	I		I				I		I
<b>5.0</b>	<b>Psychomotor</b>													



	Course Offerings	332Chem-2	346 Chem-2	421Chem-2	354 Curr-3	360Curr-2	423 Chem-2	444Chem-2	451 Chem-3	463 Curr-8		
	NQF Learning Domains and Learning Outcomes											
1.0	Knowledge											
1.1	Explanation the theories and the properties of reactions, methods of preparation, nomenclature, separation and quantification of inorganic compounds.	A		A			I		A			
1.2	determines the types and properties of organic compounds and the mechanics of their reactions and methods of preparation and detection.		A					A				
1.3	Mentioned the basic knowledge of educational, Language and religious decisions				P	P				A		
1.4	Mentioned the basic scientific knowledge OF sciences physics , mathematics, Biology and related to science of chemistry											
2.0	Cognitive Skills											
2.1	Uses educational and linguistic concepts and information acquired in the field of specialization				A	P				A		
2.2	Explains spectral measurements, physical and chemical properties, mechanical	A	P	P			A	A	A			

	interaction, scientific theories related to organic and inorganic compounds, analysis and methods of separation											
2.3	apply the laws and nomenclature rules of the different types of reactions organic and inorganic in a proper and safe manner		A	I			I		P			
2.4	Applied knowledge and theories in physics, biology and mathematics in the field of chemistry.											
<b>3.0</b>	<b>Interpersonal Skills &amp; Responsibility</b>											
3.1	works in groups and teams in a cooperative and effective manner with others.		I		I		I		I	I		
3.2	Committed to duties and responsibilities in the ethics of the profession.									A		
3.3	depend on himself and has the ability to self-learning and personal and professional development	I			I	I		I	I	I		
<b>4.0</b>	<b>Communication, Information Technology, Numerical</b>											
4.1	Communicates effectively with others, with team or colleagues					I						
4.2	Uses modern technology and best practices in the field of teaching and research chemistry	I		I	A		I	I	I	A		
4.3	Using statistical and statistical software in chemistry to analyze data, obtain results and write reports	I	I				I		I			

5.0	Psychomotor												

### 5. Admission Requirements for the program

Attach handbook or bulletin description of admission requirements including any course or experience prerequisites.

1. The students who are likely to be enrolled in the program must have special needs or characteristics such as.
2. Free of diseases of the chest.
3. The lack of colour blindness.
4. Deal with computer efficiently

### 6. Attendance and Completion Requirements

Attach handbook or bulletin description of requirements for ن :

- a. Attendance.
- b. Progression from year to year .
- c. Program completion or graduation requirements

**Attachment a academic plan for the program and list of study and examinations of the University of Najran (Article IX, and even Article XIX).**

### E. Regulations for Student Assessment and Verification of Standards

What processes will be used for verifying standards of achievement (e.g. verify grading samples of test or assignments? Independent assessment by faculty from another institution) (Processes may vary for different courses or domains of learning.)

- 1- Survey the opinions of students for examinations by Unit Development and Quality in college.

- 2- Evaluate examination paper specifications at the end of each semester to measure the outcomes of learning courses.
- 3- Evaluate the faculty preformance from the students before the end of each semester.
- 4- Evaluation of exam by another colleague.
- 5- Review correction a sample of the exams.

Student assessment system is based on the theoretical and practical tests, homework assignments and exercises, projects and any other scientific activities. Full mark for each course in the study plan for the program is equal to over 100 degrees.

The full mark is distributed as follows:

First: theoretical courses:

- ❖ The grade of semester activities: 50 marks, Divided as follows:
  - First mid-term exam in the fifth week: 15 marks
  - Second mid-term exam in the tenth week: 15 marks.
  - Exercises, participations, and homework activities: 20 marks
- ❖ Final written exam: 50 marks.

Second, practical courses:

- ❖ The grade of semester activities: 40 marks, Divided as follows:
  - First mid-term exam in the fifth week: 10 marks
  - Second mid-term exam in the tenth week: 10 marks.
  - Exercises, participations, and homework activities: 20 marks
- ❖ Final oral-lab exam: 20 marks.

Final written exam: 40 marks.

## F Student Administration and Support

### 1. Student Academic Counselling

Describe the arrangements for academic counselling and advising for students, including both scheduling of faculty office hours and advising on program planning, subject selection and career planning (which might be available at college level).

- Set an academic guide from the faculty members for each student since joining the program to graduation
  - Follow the academic performance of the student through the College's Academic Counseling Unit
- Provide the student with necessary consultancy about specialization and employment after graduation with giving advice on personal, social and educational aspects to the student and contribute to the development of appropriate solutions for the academic problems that may encounter and avoid the student's deficiencies in program implementation.
- Customize office hours specified in the schedule of each faculty member per week which should be advertised in dedicated and clear place to provide academic assistance to the student about the process program and the difficulties that can oppose student before, during and after the program ends.
- There is a program for academic advising held each semester that does the follows:
  - ✓ Academic week at the beginning of each semester to initialize new student
  - ✓ Receiving new students and informing them about the undergraduate system.
  - ✓ Prepare a file for each student that contains all his data
  - ✓ Inform students with dates of add/drop the courses and the electronic way to do that
  - ✓ Explain the schedule for the student and how he/she knows the time and place for his/her lectures.
  - ✓ Inform the students with the names, numbers and symbols of courses and their previous requirements.
  - ✓ Inform the students with academic calendar annual and start dates of semesters.



- ✓ Follow the academic achievement of the student and if she/he gets improved or not.
- ✓ Guide the students and help them educationally and academically
- ✓ Identify the problems facing students especially those affecting academic performance and work to resolve them.
- ✓ Inform the student with her/his rights and obligations within the college and controls the penalties when a breach of university regulations system.
- ✓ Inform the students with postponement and apologize rules for the study.
- ✓ Guide the students who are academically unsuccessful.
- ✓ Encourage the students to read the instructions issued by the Dean of Student Affairs and that to attend seminars held by it.
- ✓ Provide the student with handbook academic advising
- ✓ Give interest to the achiever student in coordination with their academic departments.

Study repeated absences behaviourally to advise the students.

## 2. Student Appeals

Attach the regulations for student appeals on academic matters, including processes for consideration of those appeals.

- Committee is formed in the department for receiving student complaints called "Committee of Students Complaints" by a decision of the Council chaired by the President of the section/section Coordinator comprises three faculty members and one of them is the Coordinator of the Committee.
- This committee is responsible to:
  1. Create an electronic record of the students' complaints section wherein we record the substance of complaints received, date and follow-up procedures for solving them.
  2. Adopt a complaints form that ensures confidentiality.
  3. Receive the students to register complaints and to procedures for solving them.

4. Register students' complaints and follow up solution procedures and the committee coordinator.
  5. Tell the student the response of the complaint within five days, in cases that require the approval of the Board of the Department the student is informed of the proposal of the resolution solve the problem if the proposal by the Chairman/Coordinator section to be informed after approval and adoption of specialized boards, in the latter case, the duration depends on the progress of the student complaints, and so the dates of department and faculty councils are announced for students.
- Student complaints handling mechanism includes two tracks: The first is handled informally, The second dealt with formally guarantees the confidentiality and non affected student and fast action.
  - The role of coordinator of the Committee is determined in the following points:
    1. Is the relation between the students and the faculty members in the Department, and provides advice on how to handle students' complaints.
    2. Examine the complaints of the first stage and oversees the implementation of the results of the investigation
    3. Collect all the information about informal complaints
  - Mechanisms for complaints and suggestions and how to deal with them: students' complaints received through:
    1. Fund student complaints
    2. Chairperson/Coordinator of the scientific Department directly either in writing or orally.
    3. Meetings of the faculty members with student groups.
    4. The students' Union.
    5. College website
  - Direct the students to the following procedural steps: formal complaint must be submitted in writing and complaint form can be obtained from the Coordinator of

the Committee section or the student can be given the following details in a letter:

1. Name
  2. The nature of the complaint.
  3. Actions, if any, which the student took before to resolve the complaint, or any action that may have been part of the College.
  4. What the student expect to resolve his complaint.
- And finally the student informed by the follows:
    1. A search (investigation) into your complaint will be done as soon as possible.
    2. You will be notified of the results of the investigation and on any action to be taken.
    3. If you are still not satisfied you should specify in writing the reasons for not satisfied, send the Commission. And the Committee will review the complaint and make recommendations

#### G. Learning Resources, Facilities and Equipment

1a. What processes are followed by faculty and teaching staff for planning and acquisition of textbooks, reference and other resource material including electronic and web based resources?

1. **Coordinating with the Central Library and the University Central bookstore to provide books and references in the area of specialization.**
2. **Coordinating with the competent authority in the university provide electronic information sources.**
3. **Using the newest books and latest edition of textbooks which are compatible with the content description of courses.**
4. **Requesting to purchase of required textbooks or other related resources is submitted to the competent authority in the university by the end of each academic year.**

1b. What processes are followed by faculty and teaching staff for planning and acquisition resources for library, laboratories, and classrooms.

1. **Requirements are recorded by the teaching staff. By the end of each semester the list of**

requirements is submitted according to the followed system in the university.

**2. Training the student to access the electronic library in the university website.**

2. What processes are followed by faculty and teaching staff for evaluating the adequacy of textbooks, reference and other resource provisions?

**Periodic update of required references is conducted by a committee in the department.**

3. What processes are followed by students for evaluating the adequacy of textbooks, reference and other resource provisions?

**Availability, interest and helpfulness of textbooks and materials are evaluated by students in course evaluations.**

4. What processes are followed for textbook acquisition and approval?

- **The new selected books should be approved by the department council and higher academic councils in the university.**

**Curriculum development and assessment committee oversees the acquisition of textbooks.**

#### **H. Faculty and other Teaching Staff**

##### **1. Appointments التعيينات**

Summarize the process of employment of new faculty and teaching staff to ensure that they are appropriately qualified and experienced for their teaching responsibilities.

- **Advertising section of the need for faculty members, and collaborators, within the limits of the actual need for teaching within the department, college, and university.**
- **Choosing teaching of specialists and experts of high scientific and efficient staff members, according to the quality standards in the selection and nomination.**
- **Following quality standards) Degree Proficiency in English language research literature professional association to participate in seminars and conferences (in the selection of faculty members and their assistants.**

- **Choosing faculty members of university graduates outstanding academically.**
- **Conducting personal interviews to assess the efficiency of the applicant for the position of a faculty member.**
- **Defining faculty member of the newly appointed body systems and regulations of the department and the university.**

**Assessing the performance of a faculty member during the first year of practice for academic and research, before deciding on the final appointment**

## **2. Participation in Program Planning, Monitoring and Review**

a. Explain the process for consultation with and involvement of teaching staff in monitoring program quality, annual review and planning for improvement.

- **Formation of working committees by the board of the department mission planning, monitoring and comprehensive review of the program and any changes from the developments.**
- **Coordination with quality management at the university to follow up implementation of the program department.**
- **Referendum faculty members on how best to develop the curriculum and teaching methods at the end of each semester.**
- **Conduct a comprehensive review of the program on a regular basis every five years**
- **Preparation of the annual report of the program**
- **Evaluation of the annual report of the program by the external evaluator**
- **Preparation improvement program plan**
- **External audit of the program**

b. Explain the process of the Advisory Committee (if applicable)

**The Committee of Quality in the program forms an advisory committee of stakeholders and specialists in accordance with the following procedures:**

- **Make a survey of stakeholders and specialists to determine the best elements of the membership of the Advisory Committee.**
- **Submit a proposal of the committee members and submitted to the department council for approval.**
- **The council of the department raises a letter of recommendation to the Faculty Council for Approval**
- **After approval by the College council for the Committee members, the program coordinator informs the members of the Committee for their membership compile their data and determine the periodic meetings.**

### **3. Professional Development**

What arrangements are made for professional development of faculty and teaching staff for:

a. Improvement of skills in teaching and student assessment.

- **Organize training courses for the development of teaching skills of faculty members in collaboration with the unit Skills Development Agency, University for Development and Quality of work sessions.**
- **The presence of the new faculty lectures to members of distinct for modelling.**
- **Allocating a portion of the meetings of the Council of the Section to view the leading and creative experiences for faculty members.**

b. Other professional development including knowledge of research?

- **Been adopted upgrade according to the laws of the organization for teaching faculty members in Saudi universities of Article No. 13**
- **Until the end of Article 37.**
- **Provide an opportunity for faculty members to participate in conferences, seminars and various meetings.**
- **Encourage the teaching of scientific publishing staff members through participation in magazines, local, Arab and foreign periodicals and prestigious.**
- **Support the process of scientific research and studies related to specialization.**

- Participate in community service.
- Take advantage of the opportunities delegation, secondment of scientific research centres, universities and other bodies in accordance with the rules and regulations of the university.
- Organizing scientific meetings hosted distinguished scientists where to showcase the latest developments in the field of scientific research in the specialty.
- Encourage faculty members to join the local, regional and international scientific associations and attend events and participate in its activities.
- Take advantage of the research projects supported by the university.

#### 4. Preparation of New Faculty and Teaching Staff

Describe the process used for orientation and induction of new, visiting or part time teaching staff to ensure full understanding of the program and the role of the course(s) they teach as components within it.

- Hold program to receive and to create new members at the beginning of each semester.
- Knowledge of the requirements of the program, the working system and administrative communication.
- Familiarity with the mission and objectives of the department, and explained the philosophy of the program and the courses that he will teach and the economic and social needs of the program and his contributions.
- Familiarity with the work in quality assurance standards through courses and workshops.
- Knowledge of the achievements of the department and the faculty members and their contributions in the field of academic and community service and the transformations experienced by section.
- Identification of equipments and facilities available.
- Knowledge of the rights and duties of a faculty member.

- Knowledge of the development opportunities available and their potential contribution to it.
- Meetings induction program at the beginning of each semester.
- Leaflets and brochures distributed in the program on the faculty.
- Benefit from the experience of teaching experienced and efficient staff.
- Hold regular meetings to encourage the interaction of new faculty members of the department.

#### 5. Part Time and Visiting Faculty and Teaching Staff

Provide a summary of Program/Department/College/institution policy on appointment of part time and visiting teaching staff. (ie. Approvals required, selection process, proportion to total teaching staff, etc.)

- The rules of use of part-time professors to adopt, in accordance with the list of the organization's affairs for the teaching staff in Saudi universities of Article No. 26 members until the end of Article 111, in addition to the following points:
- Section need to be allocated to the part-time professor.
- Be a part-time professor of specialists high scientific and efficiency.
- Be a part-time professor of university graduates outstanding academically.

#### I. Program Evaluation and Improvement Processes

##### 1. Effectiveness of Teaching

- a. What QA procedures for developing and assessing learning outcomes?
  - Revision the specifications and contents of the examination paper and measuring learning outcomes by a faculty members.
  - External review of the program.
  - Benefit from feedback from students and faculty benefit from the evaluation study of the decisions of the faculty members.



<p>b. What processes are used for evaluating the skills of faculty and teaching staff in using the planned strategies?</p> <ul style="list-style-type: none"> <li>■ Evaluation of exam paper by a committee of faculty members</li> <li>■ Report of evaluation of the courses at the end of the semester.</li> <li>■ The external evaluation.</li> </ul>
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## 2. Overall Program Evaluation

<p>a. What strategies are used in the program for obtaining assessments of the overall quality of the program and achievement of its intended learning outcomes:</p>
<p>From current students and graduates of the program ?</p> <ul style="list-style-type: none"> <li>- Evaluation the program by the graduate students.</li> <li>- Evaluation the program by the final year students .</li> </ul>
<p>(i) From independent advisors and/or evaluator(s) ? <b>Evaluate the program by the external evaluator</b></p>
<p>(ii) From employers and/or other stakeholders</p> <ul style="list-style-type: none"> <li>• Assessment from Advisory Board of the Program</li> <li>• Evaluation of program by graduates' employers</li> </ul>

### Attachments !:

1. Copies of regulations and other documents referred to template preceded by a table of contents.

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**2. Course specifications for all program courses including field experience specification if applicable.**

Authorized Signatures التوقيعات المعتمدة

Dean / Chair العميد / رئيس	Name الاسم	Title المسمى الوظيفي أو المنصب	Signature التوقيع	Date التاريخ
Program Dean or program chair Main Campus عميد أو رئيس البرنامج بالمقر الجامعي الرئيس				
Branch 1 الفرع 1				
Branch 2 الفرع 2				
Branch 3 الفرع 3				
Branch 4 الفرع 4				