هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-103
2022

Program Specification

Program Name:	**Plant Production and Protection Program**
Program Code (as per Saudi university ranking):	*Enter Program Code.*
Qualification Level:	Undergraduate (B.Sc.)
Department:	Plant Production and Protection
College:	Agriculture and Veterinary Medicine
Institution:	Qassim University
Program Specification:	New ☐ updated* ☒
Last Review Date:	write here

* T3_Program Specifications.pdf

Content:

A. Program Identification and General Information

1. Program's Main Location :

- Main Campus of Qassim University (El- Meleidah Campus)
- Agricultural and veterinary experiment station.

2. Branches Offering the Program (if any):

NA

3. Partnerships with other parties (if any) and the nature of each:

NA

4. Professions/jobs for which students are qualified

- Agricultural production specialists (different branches)
- Pesticides specialist
- Soil specialist
- Irrigation specialist
- Date palm production specialist

5. Relevant occupational/ Professional sectors:

1. Ministry of Agriculture and Research Centers.
2. Agriculture Banks.
3. Ministry of Municipal and Rural Affairs.
4. Agriculture Establishments and Companies.
5. Saudi Agency for protecting and developing wildlife.
6. Ministry of Education.
7. Grain Storage Silos and Flour Mills.
8. Agency of Specifications and Standards.
9. Institutes of Agriculture Education.
10. Customs and Agriculture Quarantine.

6. Major Tracks/Pathways (if any):

Major track/pathway	Credit hours (For each track)	Professions/jobs (For each track)
1. Plant Production	146	• Agricultural specialists • Soil specialists • Irrigation specialists • Ministry of Agriculture and Water • Saudi Food and Drugs Authority • Municipalities

		• King Abdul Aziz City for Science and Technology (KACST) • Private farms • Agricultural companies
2. Plant Protection	146	• Agricultural specialists • Pesticides specialists • Ministry of Agriculture and Water • Customs (Agricultural quarantine) • Saudi Food and Drugs Authority • Municipalities • King Abdul Aziz City for Science and Technology (KACST) • Private farms • Agricultural companies

7. Exit Points/Awarded Degree (if any):

exit points/awarded degree	Credit hours
1. NA	

8. Total credit hours: (146)

B. Mission, Objectives, and Program Learning Outcomes

1. Program Mission:

Preparation of qualified graduates to support the national agricultural job market in the fields of plant production/plant protection by providing the students with the required knowledge, skills and competences using effective teaching, applied research and community services, contributing to the development of sustainable agriculture and achievement of the College and the University missions.

2. Program Objectives:

1. Provide students with the basics of Agricultural Sciences.
2. Provide students with the applied skills in the field of agricultural sciences.
3. Provide students with the required competences for carrying out applied research, community serving and performing real-life works in authorities and enterprises of agricultural sector.

3. Program Learning Outcomes*

Knowledge and Understanding	
K1	List basics and fundamentals associated with agricultural sciences

K2	List the soil fertility factors and its physical and chemical properties necessary to improve the agricultural production
K3	Recognize the field crops, horticultural crops and agricultural pests
K4	Describe the plant propagation methods and both agricultural practices and farm machineries required for plant production
K5	Describes plant pathological symptoms and treatment methods / Nutritional deficiencies / methods of transmission and spread of agricultural pests / non-insect animal pests / machinery used in pest control and its functional parts
K6	Mention the economic crop pests in Qassim and Saudi Arabia / Environmental conditions leading to increased spread of various pests.
Skills	
S1	Evaluate the plant production / plant protection methods according to environmental, moral, social and Islamic considerations
S2	Represent data graphically and analyze the results of agricultural experiments
S3	Perform lab experiments and field operations that related to plant production/protection correctly.
S4	Explain the effect of different factors related to production and quality of pastures, field and horticultural crops
S5	Design Agricultural systems to maximize utilization of different agriculture production components.
S6	Identify the different pests and disease that attack plants, their symptoms, and the control methods
S7	Apply good practices for handling, transporting, storage and the usage of pesticides / IPM / principles of honey bee and silkworms care
Values, Autonomy, and Responsibility	
V1	Illustrate the ability to work in teams, communicate with others, and take responsibility.
V2	Write reports that cover different aspects of plant production/ protection in a correct way linguistically and scientifically

* Add a table for each track or exit Point (if any)

	Both tracks
	Plant production
	Plant protection

C. Curriculum

1. Curriculum Structure

Program Structure	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Requirements	Required	6	12	8.2
	Elective	---	6	4.1
College Requirements	Required	10	34	23.3
	Elective	2	6	4.1
Program Requirements	Required	34	70	48.0
	Elective	6	12	8.2
Capstone Course/Project	-----	----	----	----
Field Training/ Internship	Required	1	6	4.1
Residency year	-----	----	----	----
Others	-----	----	----	----
Total			146	100

* Add a separated table for each track (if any).

2. Program Courses

a) Plant production track

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level 1	IC101	Introduction to Islamic Culture	R	--	2	I
	ARAB101	Language Skills	R	--	2	I
	CHEM103	Principles of General Chemistry	R	--	3	I
	ZOOL101	Zoology	R	--	4	C
	ENG101	English (1)	R	--	3	I
	PSYCH101	Thinking and Teaching Strategy Skills	R	--	2	I
	MATH165	Introduction to Calculus	R	--	3	I

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level 2	BOT101	General Botany	R	-	4	C
	PHYS105	General Physics	R	-	3	C
	IC102	Islamic and Construction of Society	R	101 IC	2	I
	STAT122	Introduction to Statistics	R	-	2	C
	CHEM246	Principles of Organic Chemistry	R	103 CHEM	3	C
	APP211	Principles of Animal Production	R	101 ZOOL	3	C
		Elective College Course 1	E	-	2	C
Level 3	IC103	The Islamic Economic System	R	101 IC	2	I
	AGEC202	Principles of Agriculture Economic	R	-	2	C
	PAP212	Agriculture Microbiology	R	101 BOT	3	D
	BIO271	General Plant Physiology	R	101 BOT	3	D
	FSNU221	Principles of Food Processing	R	-	2	C
	MGMT103	Communication Skills	R	-	2	I
	BCH301	Principles of Biochemistry	R	246 CHEM	3	D
		Elective College Course 2	E	-	2	C
Level 4	ARAB103	Expository Writing	R	-	2	I
	PAP211	Fundamentals of Soil Science	R	103 CHEM+ 105 PHYS	3	D
	PAP213	Principles of Plant Production	R	101 BOT	3	D

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
	PAP214	Principles of Plant Protection	R	101 BOT+ 101 ZOOL	3	D
	PAP215	Agriculture Extension	R	-	2	D
	PAP216	Genetics	R	101 BOT	2	D
	FSNU328	Food Processing (6) Dates and their Products	R	221 FSNU	2	C
		Elective College Course 3	E	-	2	
Level 5	IC104	Fundamentals of the Islamic Political System	R	101 IC	2	I
	PAP311	Soil Fertility and Plant Nutrition	R	211 PAP	3	D
	PAP312	Irrigation and Drainage systems	R	211 PAP	2	D
	PAP313	Agricultural Operations Mechanization	R	165 MATH	2	D
	PAP321	Principles of Plant Breeding	R	216 PAP	2	D
	PAP325	Rangelands Management and Classification of its Species	R	213 PAP	2	D
	PAP331	Nurseries and Plant Propagation Methods	R	213 PAP	2	D
		Elective Department Course	E	-	2	D
Level 6	PAP314	Applications of Computer in Agriculture	R	122 STAT	2	D
	PAP322	Production of Field Crops	R	213 PAP	3	D
	PAP333	Fruit Production	R	213 PAP	3	D
	PAP335	Vegetable Production	R	213 PAP	3	D

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
	PAP336	Production of Flowers and Ornamental Plants	R	213 PAP	2	D
		Elective Department Course	E	-	2	D
Level 7	PAP432	Date Palm Production	R	213 PAP	2	D
	PAP434	Techniques of Protected Agriculture	R	213 PAP	2	D
	PAP436	Desertification and Afforestation of Arid Zones	R	336 PAP	2	D
	PAP457	Pests of Field and Horticultural Crops	R	213 PAP	3	D
	PAP461	Analysis of Soil, Water and Plant	R	311 PAP	1	D
		Free Course	E	-	3	D
		Elective Department Course	E	-	2	D
		Elective Department Course	E	-	2	D
Level 8	PAP412	Management of Agricultural Projects	R	202 AGEC	1	D
	PAP442	Weeds and Weed Control	R	213 PAP+ 214 PAP	2	D
	PAP437	Landscape of Gardens and Cities	R	336 PAP	2	D
	PAP438	Soilless Agriculture	R	434 PAP	1	D
	PAP481	Graduation Project	R	322 PAP+ 333 PAP+ 335 PAP+ 336 PAP	2	D
		Free Course	E	-	3	D
		Elective Department Course	E	-	2	D
		Elective Department Course	E	-	2	D

* Include additional levels if needed

** Add a table for each track (if any)

Course Code	Course Title	Credit Hours				Pre-requisite" Courses
		Lecture	Lab.	Training	Total	
PAP480	**Cooperative Training**	**-**	**-**	**6**	**6**	Students must pass at least 100 credit hours

Elective College Course:

The student selects 6 credit hours

Course Code	Course Title	Credit Hours				Pre-requisite" Courses
		Lecture	Lab.	Training	Total	
PAP217	Principles of Pest Control	1	1	0	2	103 CHEM
PAP218	Agricultural Environment and Climate Change	1	1	0	2	105 PHYS
PAP219	Principles of Biotechnology	1	1	0	2	-
APP 380	Ornamental Animals and Birds Production	1	1	0	2	-
APP480	Organic Animal Production	1	1	0	2	211 APP
APP381	Animal Farms Technical Management	1	1	0	2	101 ZOOL
FSNU313	Food Safety	1	1	0	2	301 BCH
FSNU341	Nutrition and Immunity in Human	2	0	0	2	301 BCH
FSNU352	Functional Foods	1	1	0	2	301 BCH
VMD349	Tissue Culture	1	1	0	2	301 BCH
VMD496	Wildlife Health and Management	1	1	0	2	301 BCH
VMD348	Molecular Biology	1	1	0	2	301 BCH

Elective Department Course (for plant production track)

The student selects 12 credit hours

Course Code	Course Title	Credit Hours				Pre-requisite" Courses
		Lecture	Lab.	Training	Total	
PAP421	Forage Crops	1	1	0	2	101 BOT
PAP422	Seed Production and Testing	1	1	0	2	322 PAP
PAP435	Handling and Storing of Horticultural Crops	1	1	0	2	101 BOT
PAP430	Production of Medicinal and Aromatic Crops	1	1	0	2	336 PAP

Course Code	Course Title	Credit Hours				Pre-requisite" Courses
		Lecture	Lab.	Training	Total	
PAP431	Turf Grasses and Indoor Plants	1	1	0	2	336 PAP
PAP433	Organic Agriculture	1	1	0	2	335 PAP
PAP411	Fertilizers and Fertilization	1	1	0	2	311 PAP
PAP410	Design and Analysis of Agriculture Experiments	1	1	0	2	122 STAT
PAP413	Plant Taxonomy	1	1	0	2	101 BOT
PAP414	Applications of Biotechnology	1	1	0	2	216 PAP

b) Plant protection track

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level 1	IC101	Introduction to Islamic Culture	R	--	2	I
	ARAB101	Language Skills	R	--	2	I
	CHEM103	Principles of General Chemistry	R	--	3	I
	ZOOL101	Zoology	R	--	4	C
	ENG101	English (1)	R	--	3	I
	PSYCH101	Thinking and Teaching Strategy Skills	R	--	2	I
	MATH165	Introduction to Calculus	R	--	3	I
Level 2	BOT101	General Botany	R	-	4	C
	PHYS105	General Physics	R	-	3	C
	IC102	Islamic and Construction of Society	R	101 IC	2	I
	STAT122	Introduction to Statistics	R	-	2	C
	CHEM246	Principles of Organic Chemistry	R	103 CHEM	3	C

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
	APP211	Principles of Animal Production	R	101 ZOOL	3	C
		Elective College Course 1	E	-	2	C
Level 3	IC103	The Islamic Economic System	R	101 IC	2	I
	AGEC202	Principles of Agriculture Economic	R	-	2	C
	PAP212	Agriculture Microbiology	R	101 BOT	3	D
	BIO271	General Plant Physiology	R	101 BOT	3	D
	FSNU221	Principles of Food Processing	R	-	2	C
	MGMT103	Communication Skills	R	-	2	I
	BCH301	Principles of Biochemistry	R	246 CHEM	3	D
		Elective College Course 2	E	-	2	C
Level 4	ARAB103	Expository Writing	R	-	2	I
	PAP211	Fundamentals of Soil Science	R	103 CHEM+ 105 PHYS	3	D
	PAP213	Principles of Plant Production	R	101 BOT	3	D
	PAP214	Principles of Plant Protection	R	101 BOT+ 101 ZOOL	3	D
	PAP215	Agriculture Extension	R	-	2	D
	PAP216	Genetics	R	101 BOT	2	D
	FSNU328	Food Processing (6) Dates and their Products	R	221 FSNU	2	C
		Elective College Course 3	E	-	2	
Level 5	IC104	Fundamentals of the Islamic Political System	R	101 IC	2	I

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
	PAP324	Production of Field and Horticulture Crops	R	213 PAP	3	D
	PAP351	Plant Diseases Caused by Nematodes	R	214 PAP	3	D
	PAP361	Fundamentals of Entomology	R	101 ZOOL	3	D
	PAP371	General Pesticides	R	246 CHEM	3	D
		Elective Department Course	E	-	2	D
Level 6	PAP352	Plant Fungal Diseases	R	214 PAP+ 212 PAP	3	D
	PAP353	Stored Grains and Products Pests	R	214 PAP	1	D
	PAP354	Bacterial and Viral Diseases	R	214 PAP+ 212 PAP	3	D
	PAP362	Economic Entomology	R	361 PAP	3	D
	PAP363	Animal Pests and Mites	R	214 PAP	2	D
	PAP442	Weeds and Weed Control	R	214 PAP+ 213 PAP	2	D
		Elective Department Course	E	-	2	D
Level 7	PAP314	Applications of Computer in Agriculture	R	122 STAT	2	D
	PAP472	Pest Control Machinery	R	371 PAP	2	D
	PAP473	Analysis of Pesticide Residues	R	371 PAP	3	D
	PAP476	Agricultural Quarantine	R	352 PAP+ 354 PAP+ 362 PAP	1	D
	PAP465	Pests and Diseases of the Date Palm	R	214 PAP+ 324 PAP	2	D
		Free Course	E	-	3	D

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
		Elective Department Course	E	-	2	D
		Elective Department Course	E	-	2	D
Level 8	PAP464	Apiculture and Silk Worm	R	362 PAP	2	D
	PAP474	Toxicity of Pesticides	R	371 PAP	2	D
	PAP475	Biological Control	R	362 PAP	2	D
	PAP485	Graduation Project	R	352 PAP+ 371 PAP+ 362 PAP + 363 PAP	2	D
		Free Course	E	-	3	D
		Elective Department Course	E	-	2	D
		Elective Department Course	E	-	2	D

Summer semester:

Course Code	Course Title	Credit Hours				Pre-requisite" Courses
		Lecture	Lab.	Training	Total	
PAP484	**Cooperative Training**	-	-	**6**	**6**	Students must pass at least 100 credit hours

Elective College Course:

The student selects 6 credit hours

Course Code	Course Title	Credit Hours				Pre-requisite" Courses
		Lecture	Lab.	Training	Total	
PAP217	Principles of Pest Control	1	1	0	2	103 CHEM
PAP218	Agricultural Environment and Climate Change	1	1	0	2	105 PHYS
PAP219	Principles of Biotechnology	1	1	0	2	-

Course Code	Course Title	Credit Hours				Pre-requisite" Courses
		Lecture	Lab.	Training	Total	
APP 380	Ornamental Animals and Birds Production	1	1	0	2	-
APP480	Organic Animal Production	1	1	0	2	211 APP
APP381	Animal Farms Technical Management	1	1	0	2	101 ZOOL
FSNU313	Food Safety	1	1	0	2	301 BCH
FSNU341	Nutrition and Immunity in Human	2	0	0	2	301 BCH
FSNU352	Functional Foods	1	1	0	2	301 BCH
VMD349	Tissue Culture	1	1	0	2	301 BCH
VMD496	Wildlife Health and Management	1	1	0	2	301 BCH
VMD348	Molecular Biology	1	1	0	2	301 BCH

Elective Department Course (for plant protection track)

The student selects 12 credit hours

Course Code	Course Title	Credit Hours				Pre-requisite" Courses
		Lecture	Lab.	Training	Total	
PAP410	Design and Analysis of Agriculture Experiments	1	1	0	2	122 STAT
PAP432	Date Palm Production	1	1	0	2	213 PAP
PAP434	Technology of Protected Agriculture	1	1	0	2	213 PAP
PAP451	Plant Diseases Applications	1	1	0	2	352 PAP
PAP452	Diseases of Greenhouses	1	1	0	2	352 PAP
PAP453	Physiological Plant Diseases and Parasitic Plants	1	1	0	2	271 BIO
PAP466	Medical and Veterinary Insects	1	1	0	2	361 PAP
PAP467	Economic Mite	1	1	0	2	363 PAP
PAP477	Fungicides	1	1	0	2	352 PAP +371 PAP
PAP478	Pesticide Formulation and Bioassay	1	1	0	2	371 PAP

PAP479	Pollution and Environment Protection	1	1	0	2	374 PAP

* Include additional levels (for three semesters option or if needed.
** Add a table for the courses of each track (if any)

3. Course Specifications:

Insert hyperlink for all course specifications using NCAAA template (T-104)

4. Program learning Outcomes Mapping Matrix:

Align the program learning outcomes with program courses, according to the following desired levels of performance (I = Introduced P = Practiced M = Mastered).

Course code & No.	Program Learning Outcomes														
	Knowledge and understanding						Skills							Values	
	K1	K2	K3	K4	K5	K6	S1	S2	S3	S4	S5	S6	S7	V1	V2
Both Tracks															
IC 101							I								I
ARAB 101							I								P
CHEM 101	I	I							P						
ZOOL 101	I								P						
ENG 101															I
PSYCH101														P	
MATH 165	I														
BOT 101	P								P						
PHYS 105	I	P							P						
IC 102							P								P
STAT 122	I						I	I							
CHEM 246	P	I							P						
IC 103							P								P
AGEC 202	I						P	P							
PAP212	P								P						
MGMT 103							P								
BCH 301	P	P							P						
ARAB 103							P								P
PAP 211	P	P					P		P						
PAP 213	P	P							P						
PAP 214	P						P		P						
PAP 215	I							P						P	
PAP 216	P						P								
APP 211	I								P						
BIO 271	I								P						
FSNU 221	I								P						

Course code & No.	Program Learning Outcomes														
	Knowledge and understanding						Skills							Values	
	K1	K2	K3	K4	K5	K6	S1	S2	S3	S4	S5	S6	S7	V1	V2
FSNU 328	I								P						
PAP 217	I								P						
PAP218	I								P						
PAP 219	I								P						
APP 380	I								P						
APP 480	I								P						
APP 381	I								P						
FSNU 313	I								P						
FSNU 341	I								P						
FSNU 352	I								P						
VMD 349	I								P						
VMD 496	I								P						
VMD 348	I								P						
Plant Production Track															
IC 104							P								
PAP 311		M							M	M					
PAP 312				I							I				
PAP 313				I							I				
PAP 321				P						P					
PAP 325			P							P					
PAP 331			P	P						P					
PAP 314								M							
PAP 322			P	P						P					
PAP 333			P	P						P					
PAP 335			P	P						P					
PAP 336			P	P						P					
PAP 480									M					P	P
PAP 432			P	P					P	P					
PAP 434				P					P		P				
PAP 436			M							M					
PAP 457			M									P			
PAP 461		M							M						
PAP 412											P				
PAP 442			P						P	P					
PAP 437				P							P				
PAP 438			P							P	P				
PAP 481							P	P	P					P	P
PAP 421				P			M								
PAP 422				P						P					
PAP 435				P						P	P				
PAP 430			P	P						P					
PAP 431				P							P				
PAP 433				P							P				
PAP 411		P		P						P					

Course code & No.	Program Learning Outcomes														
	Knowledge and understanding						Skills							Values	
	K1	K2	K3	K4	K5	K6	S1	S2	S3	S4	S5	S6	S7	V1	V2
PAP 41O							P	P			P				
PAP 413	P		P												
PAP 414				P						P					
Free course														P	
Free course														P	
Plant Protection Track															
IC 104							P								
PAP 324			I	I						I					
PAP 351					P				P			P			
PAP 361						I							I		
PAP 371						I							I		
PAP 352					P				P			P			
PAP 353						I						I			
PAP 354					P	P						P			
PAP 362						P							P		
PAP 363						I						I			
PAP 442			P						P	P					
PAP 484									M					P	P
PAP 314								M							
PAP 472					P								I		
PAP 473									P				P		
PAP 476					I							I			
PAP 465					P	P						P	P		
PAP 464					I				I				P		
PAP 474						M							M		
PAP 475					P							P	P		
PAP 485							P	P	P					P	P
PAP 410							P	P			P				
PAP 432			P	P					P	P					
PAP 434				P					P		P				
PAP 451					P	P						P	P		
PAP 452					P	P						P	P		
PAP 453					P	P						P	P		
PAP 466						P							P		
PAP 467					P							P			
PAP 477						P							P		
PAP 478						P							P		
PAP 479	P			P			P								
Free course														P	
Free course														P	

required	Interdepartmental Required	Elective	Free

	Program Learning Outcomes *At the end of the program, the student should be able to*:
K1	List basics and fundamentals associated with agricultural sciences
K2	List the soil fertility factors and its physical and chemical properties necessary to improve the agricultural production
K3	Recognize the field crops, horticultural crops and agricultural pests
K4	Describe the plant propagation methods and both agricultural practices and farm machineries required for plant production
K5	Describes plant pathological symptoms and treatment methods / Nutritional deficiencies / methods of transmission and spread of agricultural pests / non-insect animal pests / machinery used in pest control and its functional parts
K6	Mention the economic crop pests in Qassim and Saudi Arabia / Environmental conditions leading to increased spread of various pests.
S1	Evaluate the plant production / plant protection methods according to environmental, moral, social and Islamic considerations
S2	Represent data graphically and analyze the results of agricultural experiments
S3	Perform lab experiments and field operations that related to plant production/protection correctly.
S4	Explain the effect of different factors related to production and quality of pastures, field and horticultural crops
S5	Design Agricultural systems to maximize utilization of different agriculture production components.
S6	Identify the different pests and disease that attack plants, their symptoms, and the control methods
S7	apply good practices for handling, transporting, storage and the usage of pesticides / IPM / principles of honey bee and silkworms care
V1	Illustrate the ability to work in teams, communicate with others, and take responsibility.
V2	Write reports that cover different aspects of plant production/ protection in a correct way linguistically and scientifically

* Add a separated table for each track (if any).

5. Teaching and learning strategies applied to achieve program learning outcomes.

Describe teaching and learning strategies, including curricular and extra-curricular activities, to achieve the program learning outcomes in all areas.

When choosing the teaching strategies to be used in the courses in the program, considerations were taken (diversity, suitability to the level of the program, promotion of research and higher-order thinking skills, and self-learning).

Define effective teaching strategies

It is the teaching procedures that the teacher plans in advance, to help him implement the teaching in the light of the available capabilities to achieve the teaching objectives of the teaching system that he builds, and with the maximum possible effectiveness.

Principles for choosing the appropriate teaching strategy

There are general principles that must be taken into account when choosing a teaching strategy, and these foundations relate to the following aspects:

- Objectives to be achieved.
- Number of students.
- Students' characteristics and needs.
- Students' motivations.

The applied teaching strategies include:

1. Lecture
2. Debate
3. Small group work
4. Research activities
5. Practical training
6. Role playing
7. Presentation, and
8. Brainstorming

Different strategies were approved by the program counsel to assure the achievement of the program learning outcomes the main strategies are: Lecture, Debate, Small group work, Role-playing, Brainstorming, and Practical training for each course the course teacher can choose from these strategies what suites his course and then at the end of the course the effectiveness of the used strategies are evaluated. Students are encouraged to read and go to the library for a richer experience and more knowledge. Extra work and homework and assignment are a basic component of the teaching processes in the program to ensure the achievement of the PLOS and evaluate the extent of student comprehension

6. Assessment Methods for program learning outcomes.

Describe assessment methods (Direct and Indirect) that can be used to measure the achievement of program learning outcomes in all areas.

The program should devise a plan for assessing Program Learning Outcomes (all learning outcomes should be assessed at least twice in the bachelor program's cycle and once in other degrees).

Program LOs are assessed directly by calculating the average student scores in the questions related to each one of the PLOs and then evaluating the level of achievement of the PLOs. Indirect assessment of the PLOs are by student questionnaire and the analysis of the results. Program PLOs are also assessed by an overall comprehensive exam taken by students in the final levels of the program.

a) The applied direct assessment methods included:

1. Mid-term exam.
2. Final exam.
3. Practical exam.
4. Participation in lecture rooms.
5. Computer skills.
6. Homework.
7. Presentations.
8. Reports.
9. Practical experiments and training.

b) The applied indirect assessment methods included:

1. Program Evaluation Form.
2. Program benchmarking.
3. Continuous evaluation by external auditors.
4. Student graduation questionnaires.
5. Course evaluation questionnaires.
6. Questionnaires for the evaluation of faculty members.
7. Field experience questionnaires.
8. Measuring the extent of employer satisfaction.
9. Performance indicators.

D. Student Admission and Support:

1. Student Admission Requirements

Student admission are regulated by the college counsel that sets the levels of GPS required for each department yearly based on the students results in the entry levels and the recommendation of the academic affairs committee The current program stipulates that the student who wishes to join the program has to achieve, at least, 2 GPA in the 1st level.

2. Guidance and Orientation Programs for New Students

(Include only the exceptional needs offered to the students of the program that differ from those provided at the institutional level).

- All faculty members are assigned as advisors to help students understand the program requirements and regulations of the registration process. This is called an academic guide and it is decided by the program administration in a very organized process. A student group is nominated in a list sent by the student affairs committee of the college. Each student is informed about his academic advisor through announcements shown clearly on all the announcing boards of the college. The advisor is responsible for guiding each one of his group to select subjects during the semester beginning and informing him about the importance of prerequisites and the optimum way to complete the program in the proper time. As advisor or instructor, each staff must post his office hours clearly (4-6 h/week) to guide his nominated group or meet with students who might need help in taught courses.
- Students can get guidance and advice through the university website **(www.qu.edu.sa).**
- The stationary center is convenient to the enrolled students in which all notebooks and course session documents are available.

3. Student Counseling Services

(Academic, professional, psychological and social)

(Include only the exceptional needs offered to the students of the program that differ from those provided at the institutional level).

- Students can get guidance and advice through the university web site **(www.qu.edu.sa).**
- Stationary center is convenient to the enrolled students in which all notebooks and course sessions documents are available.
- Students can get information about career and job opportunities in activities designed for that like graduate meetings and employment days

4. Special Support

(Low achievers, disabled, gifted, and talented students).

Low achievers and slow learners are usually recognized by their academic advisors. The college has a student committee for supporting such students ‘and the student club has employees that take care of the student's welfare. Talented students are encouraged by the program administration to continue achieving and are offered chances to be recruited as staff or specialists in the department.

E. Faculty and Administrative Staff:

1. Needed Teaching and Administrative Staff

Academic Rank	Specialty		Special Requirements / Skills (if any)	Required Numbers		
	General	Specific		M	F	T
Professors	Plant Pathology	Plant Protection	---------	2		2
Associate Professors	Biotechnology	Plant Production	---------	1		1
Assistant Professors	Ornament plants	Plant physiology	---------	2		2
Lecturers	Extension	Ag. Economics	---------	2		2
Teaching Assistants	Soil microbiology	Soil and water	---------	1		1
Technicians and Laboratory Assistants	Agricultural technicians	Agricultural technicians	---------	5		5
Administrative and Supportive Staff			---------	3		3
Professors	Biotechnology	Entomology	---------	1		1
Professors	Plant pathology Nematology	Plant Protection	---------	1		1
Associate Professors	Pomology	Horticulture	---------	1		1
Assistant Professors	Soil fertility and plant nutrition	Soil Sciences	---------	1		1
Lecturers	Molecular genetics	Agronomy	---------	1		1
Professors	Integrated Pest Management	Economic Entomology	---------	1		1
Associate Professors	Machine Design	Ag. Engineering	---------	1		1
Assistant Professors	Agronomy	Plant Production	---------	2		2
Lecturers	Acarology	Agricultural Zoology	---------	1		1

Academic Rank	Specialty		Special Requirements / Skills (if any)	Required Numbers		
	General	Specific		M	F	T
Professors	Virus & phytoplasma	Plant Pathology	---------	1		1
Associate Professors	Ornamental plants	Horticulture	---------	1		1
Assistant Professors	Pesticides Chemistry	Plant Protection	---------	1		1
Lecturers	Soil physics	Soil & Water	---------	1		1
Professors	Plant breeding	Agronomy	---------	1		1
Associate Professors	Forage and Pasture management	Agronomy	---------	1		1
Assistant Professors	Environmental Physics	Environmental Sc.	---------	1		1
Lecturers	Biotechnology	Microbiology	---------	1		1
Professors	Plant Protection	Plant Protection	---------	1		1
Associate Professors	Genetics	Genetics	---------	1		1
Assistant Professors	Vegetable crops physiology and production	Horticulture	---------	1		1
Lecturers	Soil Fertility	Soil Sciences	---------	1		1
Professors	Irrigation	Ag. Engineering	---------	1		1
Associate Professors	Plant Virology	Plant Pathology	---------	1		1
Assistant Professors	Plant Ecophysiology	Biology	---------	1		1
Lecturers	Plant Pathology	Plant Protection	---------	1		1

2. Professional Development

2.1 Orientation of New Teaching Staff Describe briefly the process used for orientation of new, visiting and part-time teaching staff
At the beginning of each semester an orientation program will be held to welcome the new faculty members. The program will include an introduction about the university, Faculty affairs, Quality Assurance and Research opportunities. The program will also include a tour of the university facilities as well as a sort tour of the city and landmarks of Qassim.
2.2 Professional Development for Teaching Staff Describe briefly the plan and arrangements for academic and professional development of teaching staff (e.g., teaching & learning strategies, learning outcomes assessment, professional development, etc.)
The Deanship of Academic Development conducts regular training programs, workshops and short courses for faculty skill development throughout the semesters.

F. Learning Resources, Facilities, and Equipment:

1. Learning Resources

Learning resources required by the Program (textbooks, references, and e-learning resources and web-based resources, etc.)

1. Deanship of Library Affairs invites all faculty and teaching staff to send their inquiries (book, reference work…etc) to the deanship annually through the library committee of each faculty. The deanship purchases and categorizes the books to be available in the central library.
2. Directorate of publication and translation is one of the active units of the university
3. All teaching staff has access to the internet in office through a fixed Ethernet terminal, a Wi-Fi is available as well in the entire campus. The internet service is protected and requires user name and password.
4. All teaching staff has access to the Saudi National Digital Library (SNDL) in campus. Also, can be accessed remotely off-campus.SNDL secures subscriptions for all scientific search websites

2. Facilities and Equipment

(Library, laboratories, classrooms, etc.)

Monitoring of the classrooms and the laboratories are regulated and maintained by the university. The program fully complies with the rules and regulations of Qassim university. And the needs for maintenance and new supplies in the program are handled by a committee devoted for laboratories chemicals and the needs of the program

3. Procedures to ensure a healthy and safe learning environment

(According to the nature of the program)

All regulation and monitoring of the classrooms and the laboratories are regulated and maintained by the university. The program fully complies with the rules and regulation of Qassim university for keeping a safe and healthy environment.

G. Program Quality Assurance:

1. Program Quality Assurance System

Provide a link to quality assurance manual.

quality assurance manual

2. Procedures to Monitor Quality of Courses Taught by other Departments

3. Procedures Used to Ensure the Consistency between Main Campus and Branches (including male and female sections).

NA

4. Assessment Plan for Program Learning Outcomes (PLOs),

5. Program Evaluation Matrix

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
leadership	students, graduates, alumni, faculty, program leaders, administrative staff, employers	Surveys, interviews	yearly
effectiveness of teaching & assessment	students, graduates, faculty	Surveys, interviews, direct calculation of PLOs	beginning of each semester
learning resources	students, graduates, faculty, program leaders, administrative staff, employers	Surveys, interviews	beginning of each semester
partnerships	students, graduates, alumni, faculty, program leaders,	Surveys, interviews, visits	beginning of semesters

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
	administrative staff, employers		

Evaluation Areas/Aspects (e.g., leadership, effectiveness of teaching & assessment, learning resources, services, partnerships, etc.)
Evaluation Sources (students, graduates, alumni, faculty, program leaders, administrative staff, employers, independent reviewers, and others.
Evaluation Methods (e.g., Surveys, interviews, visits, etc.)
Evaluation Time (e.g., beginning of semesters, end of the academic year, etc.)

6. Program KPIs*

The period to achieve the target (2) year(s).

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
1	KPI-P-01	Percentage of achieved indicators of the program operational plan objectives	**100**	**Reports on the percentage of achievements of the goals, surveys**	**yearly**
2	KPI-P-02	Students' Evaluation of quality of learning experience in the program	**4.5**	**surveys**	**Each semester**
3	KPI-P-03	Students' evaluation of the quality of the courses	**4.5**	**surveys**	**Each semester**
4	KPI-P-04	Completion rate	**50**	**Statistical recording of students completion rates**	**yearly**
5	KPI-P-05	First-year students' retention rate	**50**	**Statistical recording of students retention rates**	**yearly**

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
6	KPI-P-07	Graduates' employability and enrolment in postgraduate programs	**75**	**Statistical recording of graduates employability and enrolment in postgraduate programs**	**yearly**
7	KPI-P-08	Average number of students in the class	**12**	**statistics**	**Each semester**
8	KPI-P-09	Employers' evaluation of the program graduates' proficiency	**4.5**	**surveys**	**yearly**
9	KPI-P-10	Students' satisfaction with the offered services	**4.5**	**surveys**	**Each semester**
10	KPI-P-11	Ratio of students to teaching staff	**9**	**statistics**	**Each semester**
11	KPI-P-13	Proportion of teaching staff leaving the program	**10**	**statistics**	**Each semester**
12	KPI-P-14	Percentage of publications of faculty members	**100**	**statistics**	**Each semester**
13	KPI-P-15	Rate of published research per faculty member	**1.5**	**statistics**	**Each semester**
14	KPI-P-16	Citations rate in refereed journals per faculty member	**5**	**statistics**	**Each semester**

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
15	KPI-P-17	Satisfaction of beneficiaries with the learning resources	**4.5**	**surveys**	**yearly**

*including KPIs required by NCAAA

H. Specification Approval Data:

COUNCIL / COMMITTEE	
REFERENCE NO.	
DATE	