Attachment 2 (a)

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

Program Specifications

(PS)

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المملكة العربية السعودية
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National Commission for Academic Accreditation & Assessment
Program Specifications

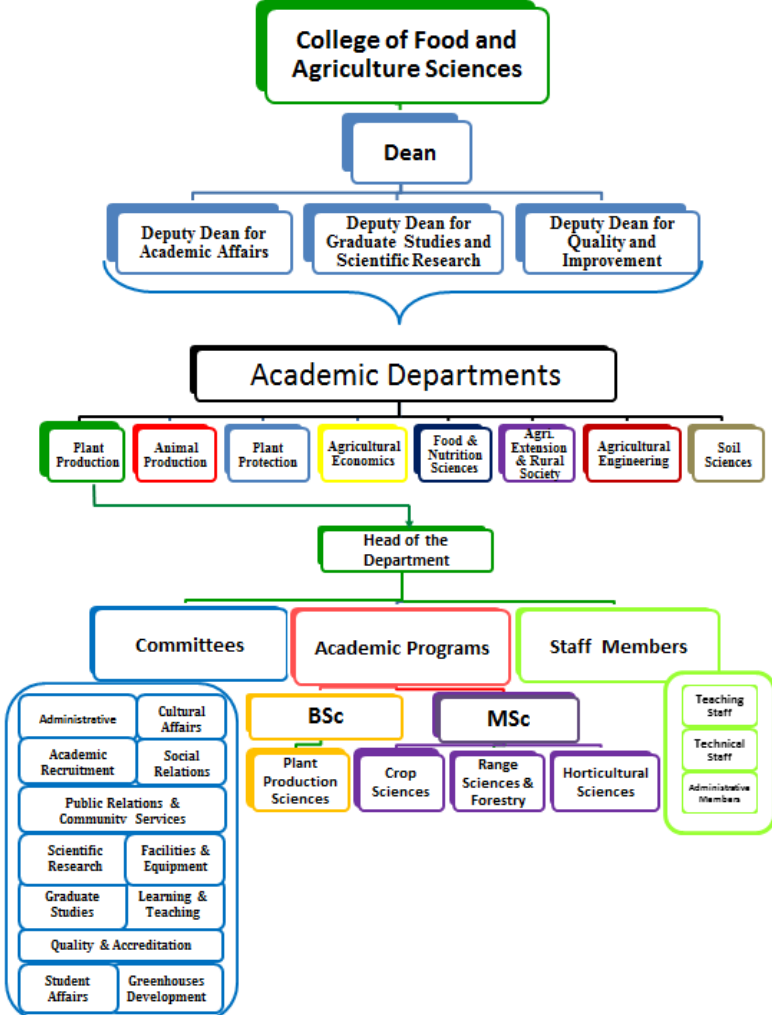*For guidance on the completion of this template, please refer to NCAAA guidebooks.*

1. Institution : King Saud University	Date of Report : 2009-2010
2. College/Department: Food and Agriculture Sciences / Plant Production	
3. Dean : Professor Dr. Fahad N. I. Al-Barakah	
4. Insert program administrative flowchart	

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

5. List all branches/locations offering this program
NA

A. Program Identification and General Information

1. Program title and code: Plant Production Sciences, PPS

2. Total credit hours needed for completion of the program: 135 Credit Hours

3. Award granted on completion of the program: Bachelor of Science (BSc) in Plant Production Sciences.

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)
None

5. Intermediate Exit Points and Awards (if any) (eg. associate degree within a bachelor degree program)
None

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)
Graduates of the PPS program are mainly prepared for working as agricultural research assistants and/ or lab technicians in public and private sectors. Distinguished graduates can be nominated as teaching assistants at agricultural colleges in Saudi Arabian universities. No early-exit programs are available at the Department of Plant Production.

7. (a) New Program ☐   Planned starting date   2011
(b) Continuing Program ✔   Year of most recent major program review: 2008
Organization involved in recent major review (eg. internal within the institution) Internal review, Dept. of Plant Production Accreditation review by Substantial Equivalency Certificate by Agricultural Institute of Canada (AIC) Other None

8. Name of program coordinator or chair. If a program coordinator or chair has been appointed for the female section as well as the male section, include names of both.
Head of the Department of Plant Production, Professor Nasser A. Al-Suhaibani

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

9. Date of approval by the authorized body (MoHE for private institutions and Council of Higher Education for public institutions).		
Campus Branch/Location	Approval By	Date
Main Campus: King Saud University	Deputy Rector for Educational Affairs.	14/10/1424 H
1:		
2:		
3:		
4:		

B. Program Context

1. Explain why the program was established.

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

With the expansion of agriculture sector in Saudi Arabia, the Department of Plant Production established the PPS program to advance education and settle modern technology in all areas of plant production sciences (Horticulture, Crop Science and Range Science and Forestry). Since that, PPS program delivers creative research, serve society and contribute in building the knowledge economy of the country. By employing experience in plant production sciences as well as practical research outcomes, community services (consultation, training, workshops, etc.) are also provided.

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

By combining teaching, research and community services, the program enhances the missions of the university and college of offering quality education for students, conducting scientific research and serving the local community.

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 ✔   No ☐

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

Continuous communication and coordination with the intended departments to satisfy their needs.

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

Yes ✔   No ☐

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

Continuous communication, coordination and consultation with the relevant departments to assure that students benefit from courses taught by other departments.

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

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).
Yes ☐ No ☑
4. What modifications or services are you providing for special needs applicants?
NA

C. Mission, Goals and Objectives

1. Program Mission Statement (insert)
"The mission of Plant Production Department is to create and maintain extension, research and comprehensive teaching programs in plant science."

1. List goals and objectives of the program within to help achieve the mission. For each goal and objective describe the major strategies to be followed and list the indicators that are used to measure achievement.

Goals and Objectives	Major Strategies	Measurable Indicators
Achieve high quality teaching and knowledge of PPS. To teach students diverse courses in all PPS disciplines through excellent teaching by professional academic staff. To provide students with applied experience through internships and cooperative learning.	1. Utilizing various learning techniques, including lectures, practical lessons in the laboratory, preparation of reports, field trip training and cooperative training. In addition to, class discussion, close reading and text analysis. 2. Recruiting high quality researchers. 3. Equipped laboratories with state-of-the-art research facilities. 4. Communication with the agricultural private sectors to recognize any agricultural and natural resources difficulties.	1. The average satisfaction rate of faculty and students to the mission statement. 2. Proportion of courses in which student evaluation were conducted during the year. 3. Students' overall evaluation on the quality of their courses (Average rating of students on a five-point scale on overall evaluation of courses) 4. Proportion of teaching staff participating in professional development activities during the past year. 5. Percentage of students entering program who successfully complete first year. 6. Proportion of students entering post-graduate programs who complete those programs in specified time.

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

		7. Proportion of teaching staff with verified doctoral qualifications.
		8. Student evaluation of library and learning resources services.
		9. Number of accessible computer terminals per student.
		10. Ratio of students to teaching staff (Based on full time equivalents)
		11. Proportion of teaching staff leaving the department for reasons other than age recruitment.
		12. Students' overall evaluation on the quality of their learning experience (Average rating of the overall quality of their program on a five point scale).
		13. Proportion of graduates from undergraduate programs who within six months of graduation are enrolled in further study.
		14. Student evaluation of academic and career counselling (Average rating on the adequacy of academic and career counselling on a five point scale).
		15. Average overall rating of adequacy of facilities and equipment in a survey of teaching staff.
Conduct firm applied research To conduct high quality research related to local agricultural problems in	5. Recruiting high quality researchers. 6. Equipped laboratories with state-of-the-art research facilities. 7. Communication with the	16. Number of citations in refereed journals in the previous year per full time equivalent teaching staff. 17. Number of refereed

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئـة الوطنيـة للتقويم
والاعـتمـاد الأكاديمـي

the field of plant production. To provide graduate students with experience in conducting applied research. To obtain internal and external fund to conduct national research projects.	agricultural private sectors to recognize any agricultural and natural resources difficulties.	publications in the previous three years per full time members of teaching staff. 18. Proportion of full time members of teaching staff with at least one referred publication in the previous year. 19. Number of papers or reports presented at academic conferences during the last year per full time member teaching staff. 20. Number of research article published by graduate students or recent graduate based on their thesis research as a percentage of the number of post-graduate students. 21. Research income from external sources in the past year as proportion of the number of full time teaching staff members.
Provide excellent community services To provide consultation, workshops, training courses to governmental agencies and private sector, and disseminate research outputs to the community.	8. Cooperating with the Agricultural Extension Centre of CFAS. 9. Cooperate with government's sectors involved in the field of agriculture and natural resources. 10. Utilize the media sources to provide agricultural knowledge to the public.	22. Proportion of full time teaching and other staff actively engaged in community service activities.

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.

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

Curriculum Study Plan Table

Year	Course Code	Course Title	Required or Elective	Credit Hours	College or Department
Prep Year	ENGL 140	English Language Skills (1)	Required	8	Preparatory Year Deanship
	MATH 140	Introduction to Mathematics	Required	2	Preparatory Year Deanship
	CT 140	Computer Skills	Required	3	Preparatory Year Deanship
	MC 140	Communication Skills	Required	2	Preparatory Year Deanship
	ENGL 150	English Language Skills (2)	Required	8	Preparatory Year Deanship
	MATH 150	Mathematics (2) Calculus	Required	3	Preparatory Year Deanship
	CI 140	Learning, Thinking and Research Skills	Required	3	Preparatory Year Deanship
	ENT 101	Entrepreneurship	Required	1	Preparatory Year Deanship
	CHS 150	Health and Fitness	Required	1	Preparatory Year Deanship
		TOTAL		**31**	
1st Year Semester 1	BOT 102	General Botany	Required	3	Dept. of Botany and Microbiology
	CHEM 103	General Chemistry -1	Required	4	Dept. of Chemistry
	SOSC 201	Fundamental of Soil Science	Required	3	Dept. of Soil Sciences
	STAT 122	Applied Statistics -1	Required	3	Dept. of Statistics and Operation Research
		One course in Basic Islamic Culture	Required	2	
		Free Courses	Elective	2	
		TOTAL		**17**	
1st Year Semester 2	BCH 101	Biochemistry	Required	4	Dept. of Biochemistry
	PPS 201	Principles of Plant Production	Required	3	Dept. of Plant Production
	PLPT 201	Principles of Plant Protection	Required	3	Dept. of Plant Protection
	AGEN 230	Water and Irrigation Systems	Required	2	Dept. of Agricultural Engineering

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

	SOSC 331	Soil Fertility and Plant Nutrition	Required	3	Dept. of Soil Sciences
		One course in Basic Islamic Culture	Required	2	
		Free courses	Elective	2	
		TOTAL		**19**	
2nd Year Semester 1	AGEC 205	Principles of Agricultural Economics	Required	3	Dept. of Agricultural economics
	PPS 203	Crop Ecology	Required	2	Dept. of Plant Production
	PPS 205	Nurseries and Methods of Plant Propagation	Required	2	Dept. of Plant Production
	PPS 206	Applied Agriculture Genetics	Required	3	Dept. of Plant Production
	PPS 331	Vegetable Production	Required	2	Dept. of Plant Production
	PPS 342	Field Crops	Required	2	Dept. of Plant Production
		One course in Basic Islamic Culture	Required	2	
		Free courses	Elective	2	
		TOTAL		**18**	
2nd Year Semester 2					
	PPS 309	Crop Physiology	Required	3	Dept. of Plant Production
	PPS 310	Principles of Plant Breeding	Required	2	Dept. of Plant Production
	PPS 321	Production of Fruit Trees	Required	2	Dept. of Plant Production
	PPS 347	Weed Control	Required	2	Dept. of Plant Production
	PPS 372	Production of Ornamental Plants and flowers	Required	2	Dept. of Plant Production
	PPS 380	Practical Training in Field Crops	Required	2	Dept. of Plant Production
	PPS 381	Practical Training in Horticultural Crops	Required	2	Dept. of Plant Production
		One course in Basic Islamic Culture	Required	2	Dept. of Plant Production
	PPS	One of the PPS Program Elective Courses.	Elective	2	Dept. of Plant Production
		TOTAL		**19**	

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

اململكة العربية السعودية
الهيئــة الوطنيــة للتقويـم
والاعـتمـاد الأكـاديمــي

3rd Year Semester 1	PPS 400	Cooperative course training	Elective	12	Dept. of Plant Production
		OR			
	PPS	PPS Program Elective Courses		12	Dept. of Plant Production
	TOTAL			**12**	
3rd Year Semester 2	PLPT 225	Field Crop and Horticulture Diseases	Required	3	Dept. of Plant Production
	PPS 308	Plant Tissue Culture	Required	2	Dept. of Plant Production
	PPS 324	Production of Date Palm and Dates	Required	2	Dept. of Plant Production
	PPS 403	Controlled Cultivation	Required	2	Dept. of Plant Production
	PPS 404	Principles of Field Experiments	Required	2	Dept. of Plant Production
	PPS 405	Practical Plant Biotechnology	Required	2	Dept. of Plant Production
	PPS 498	Graduation Project	Required	2	Dept. of Plant Production
	PPS	PPS Program Elective Courses	Elective	4	Dept. of Plant Production
	TOTAL			**19**	
Include additional years if needed.					

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

املكة العربية السعودية
الهيئــة الوطنيــة للتقويم
والاعـتمـاد الأكـاديمـي

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   Student work as trainees in one of the sectors of plant production through cooperative training program (PPS 400 elective course).
b. At what stage or stages in the program does the field experience occur? (eg. year, semester)   Cooperative training is scheduled to take place in the first Semester of fourth year (7th semester) plus preceding or following summer.
c. Time allocation and scheduling arrangement. (eg. 3 days per week for 4 weeks, full time for one semester)   Students choosing to take cooperative training spend full semester and summer session (about 7 months).
d. Number of credit hours (if any): 12 credit hours

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   The course (PPS 498) includes two parts: 1. Practical part (some experiments related to the course in the field or in lab.).   2. Final report writing and presentation (including introduction, materials and methods, results, discussion and references).
b. List the major intended learning outcomes of the project or research task.   1. Student leadership and ability to plan for scientific research and its application in the field,   2. Ability of a student to integrate practical experience with theoretical course work in the area of specialization or interest.   3. The acquisition of field and practical skills in order to comprehend the application of science in business or work place.
c. At what stage or stages in the program is the project or research undertaken? (e.g. year, semester)   At the last semester (8th.) of the PPS program.
d. Number of credit hours (if any): 2 credit hours
e. Description of academic advising and support mechanisms for students.   1. Student meets with advisor either in the group of individually at least six times

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

املكة العربية السعودية
الهيئــة الوطنيــة للتقــويم
والاعـتمـاد الأكـاديمــي

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throughout the semester.

2. Advisor has no more than 4 students to advice for the independent study.

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f. Description of assessment procedures (including mechanism for verification of standards)

1. Written guidelines with expected learning outcomes given to students at the beginning of independent study or before with rubric delineating specific requirements emphasizing that the research / project is a process to be carried out over the semester.
2. Regular fixed meetings between the student(s) and the advisor / faculty member where feedback is given (10% of full mark).
3. Final assessment and feedback after the project report has been submitted and the presentation is given (70% of full mark)
4. Peer faculty members participate in student assessment (20% of full mark) along with their supporting evidence to assure standards assessment.

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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. For Program Accreditation there are four learning outcomes required for knowledge and cognitive skills. The other three domains require at least two learning outcomes. Additional learning outcomes are suggested.

First, insert the suitable and measurable learning outcomes required in each of the learning domains (see suggestions below the table). **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.

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكــة العربيــة السعوديــة
الهيئــة الوطنيــة للتقويــم
والاعـتمــاد الأكاديمــي

	NQF Learning Domains and Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge**		
1.1	Define the concepts of various aspects of plant production.	Lectures - discussion	Written Test
1.2	Describe theoretical and practical backgrounds related to plant production.	Lectures - discussion Field and lab sessions	Written Test (quizzes, midterm and final exams)
1.3	Recognize obstacles facing plant production in Saudi Arabia.	Lectures - discussion	Written Test (quizzes, midterm and final exams)
1.4	Outline feasible measures to maintain agricultural sustainability.	Lectures - discussion	Written Test (quizzes, midterm and final exams)
2.0	**Cognitive Skills**		
2.1	Recognize certain aspects pertaining to particular areas of plant production.	Lectures - discussion	Written Essay Test
2.2	Comparative theoretical approaches to the management of plant production field.	Lectures - discussion	Written Essay Test
2.3	Critical evaluation of factors involved in plant production.	Lectures - Group discussion	Rubric Assessment
2.4	Compose practical actions for the sustainability of agriculture.	Lectures - Group discussion	Case Study
3.0	**Interpersonal Skills and Responsibility**		
3.1	Demonstrate personal skills to identify factors hindering agricultural plant production.	Group discussion	Paper-pencil Self-evaluation
3.2	Show personal ability to solve problems pertaining to plant production.	Group discussion	Oral Presentation
4.0	**Communication, Information Technology, Numerical**		
4.1	Demonstrate good experiences related to plant	Small Group discussion	Paper-pencil Self-

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

	production aspects.		evaluation
4.2	Illustrate abilities to use technology tools and information in the plant production field.	Group discussion	Rubric Assessment

Program Learning Outcome Mapping Matrix

Identify on the table below the courses that are required to teach 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

	Course Offerings NQF Learning Domains and Learning Outcomes	PPS 201-I	PPS 203-I	PPS 205-I	PPS 206-I	PPS 231-I	PPS 241-I	PPS 301-P	PPS 308-P	PPS 309-P	PPS 310-P	PPS 321-P	PPS 324-P
1.0	**Knowledge**												
1.1	Define the concepts of various aspects of plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1.2	Describe theoretical and practical backgrounds related plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1.3	Recognize obstacles facing plant production in Saudi Arabia.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1.4	Outline feasible measures to maintain agricultural sustainability.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.0	**Cognitive Skills**												
2.1	Recognize certain aspects pertaining to particular areas of plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.2	Comparative theoretical approaches to the management of plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.3	Critical evaluation of factors involved in plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.4	Compose practical actions for the sustainability of agriculture.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3.0	**Interpersonal Skills & Responsibility**												
3.1	Demonstrate personal skills to identify factors hindering agricultural plant	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

	production.												
3.2	Show personal ability to solve problems pertaining to plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.0	**Communication, Information Technology, Numerical**												
4.1	Demonstrate good experiences related to plant production aspects.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.2	Illustrate abilities to use technology tools and information in the plant production field.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5.0	**Psychomotor**												
5.1	NA	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
5.2	NA	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗

Course Offerings NQF Learning Domains and Learning Outcomes		PPS 331-P	PPS 340-P	PPS 342-P	PPS 347-P	PPS 348-P	PPS 352-P	PPS 372-P	PPS 373-P	PPS 374-P	PPS 380-P	PPS 381-P	PPS 400-A
1.0	**Knowledge**												
1.1	Define the concepts of various aspects of plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1.2	Describe theoretical and practical backgrounds related plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1.3	Recognize obstacles facing plant production in Saudi Arabia.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1.4	Outline feasible measures to maintain agricultural sustainability.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.0	**Cognitive Skills**												
2.1	Recognize certain aspects pertaining to particular areas of plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.2	Comparative theoretical approaches to the management of plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.3	Critical evaluation of factors involved in plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.4	Compose practical actions for the sustainability of agriculture.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

3.0	Interpersonal Skills & Responsibility												
3.1	Demonstrate personal skills to identify factors hindering agricultural plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3.2	Show personal ability to solve problems pertaining to plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.0	Communication, Information Technology, Numerical												
4.1	Demonstrate good experiences related to plant production aspects.	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.2	Illustrate abilities to use technology tools and information in the plant production field.	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5.0	Psychomotor												
5.1	NA	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
5.2	NA	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗

	Course Offerings — NQF Learning Domains and Learning Outcomes	PPS 401-A	PPS 402-A	PPS 403-A	PPS 404-A	PPS 405-A	PPS 409-A	PPS 410-A	PPS 421-A	PPS 446-A	PPS 476-A	PPS 498-A
1.0	Knowledge											
1.1	Define the concepts of various aspects of plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1.2	Describe theoretical and practical backgrounds related plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1.3	Recognize obstacles facing plant production in Saudi Arabia.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1.4	Outline feasible measures to maintain agricultural sustainability.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.0	Cognitive Skills											
2.1	Recognize certain aspects pertaining to particular areas of plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.2	Comparative theoretical approaches to the management of plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.3	Critical evaluation of factors involved in plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

2.4	Compose practical actions for the sustainability of agriculture.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3.0	**Interpersonal Skills & Responsibility**											
3.1	Demonstrate personal skills to identify factors hindering agricultural plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3.2	Show personal ability to solve problems pertaining to plant production.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.0	**Communication, Information Technology, Numerical**											
4.1	Demonstrate good experiences related to plant production aspects.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.2	Illustrate abilities to use technology tools and information in the plant production field.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5.0	**Psychomotor**											
5.1	NA	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘
5.2	NA	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘

5. Admission Requirements for the program

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

Attached

6. Attendance and Completion Requirements

Attach handbook or bulletin description of requirements for:
a. Attendance.
b. Progression from year to year.
c. Program completion or graduation requirements.

Attached

E. Regulations for Student Assessment and Verification of Standards

What processes will be used for verifying standards of achievement (eg check marking of sample of tests or assignments? Independent assessment by faculty from another institution) (Processes may vary for different courses or domains of learning.)

- Compare results with previous ones of the same course.

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

- Apply uniform methods of evaluation to ensure a fair assessment of the students.

- Analyze student(s) questionnaires.

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).

Student counselling and advising is provided through the department committee for student counseling. Also, each faculty staff member schedules office hours for general academic supervision.

2. Student Appeals

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

Attached

F. 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?

- Prepare reference list.

- Order books in advance.

- List of related websites.

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

- Department Committee for Teaching and Learning evaluates the needs for library resources and submits recommendations to the department council.

- The Department Committee for Laboratories and Facilities sets yearly plans for equipment acquisition and maintenance and classroom facilities and submits recommendations to the department head.

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

- Department Committee for Teaching and Learning evaluates course specifications at regular basis.

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

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

- Feedback from students through on-line evaluation of courses.

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

- Upon approval by the department council, the department head submits a list of requested textbooks to Prince Salman University Library at King Saud Univ.

G. Faculty and other Teaching Staff

1. Appointments

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

- According the role of the Ministry of Higher Education.

- Establish a committee to consider applications for appointment as members of faculty and teaching assistants.

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.

- Follow-up by internal Quality Committee.

- The participation of faculty members in various committees of academic and administrative at the levels to develop plans, program and review.

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

NA

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?

- Workshops for faculty members about quality assurance and different methods of teaching.

- Attendances of courses in skills develop.

- Improve the courses with the recent science and biotechnology.

b. Other professional development including knowledge of research and developments in their field of teaching specialty?

- Participation in training courses inside and outside the Kingdom.

- Participation in the international conferences.

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

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.

- Workshops offered by the University for New Faculty members.

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 department council nominates and recommends distinguished visiting professors, according to the actual needs of the department (at a proportion not exceeding 10% of the total PPS teaching staff). The college council approves and submits the request according to the university policy.

H. Program Evaluation and Improvement Processes

1. Effectiveness of Teaching

a. What processes are used to evaluate and improve the strategies for developing learning outcomes in the different domains of learning? (eg. assessment of learning achieved, advice on consistency with learning theory for different types of learning, assessment of understanding and skill of teaching staff in using different strategies)

- Review of student assessment for faculty members.
- Evaluation of course report.

b. What processes are used for evaluating the skills of faculty and teaching staff in using the planned strategies?

- Students' evaluation of faculty members.

2. Overall Program Evaluation

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:

(i) From current students and graduates of the program?

- Graduates of the program evaluations.
- Current students in the program evaluation.
- Feedback from student in the program about the strength and weakness points.

(ii) From independent advisors and/or evaluator(s)?

- Comparison with similar program at other Universities.
- Comparison against accreditation agency standards.
- Feedback from accreditation evaluation regarding quality of program.

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

• Feedback from employers of department graduates about the strengths and weaknesses.
(iii) From employers and/or other stakeholders.
• Feedback from employers of department graduates about the strengths and weaknesses.

Complete the following two tables.
1. **Program KPI and Assessment Table**
2. **Program Action Plan Table**

Program KPI and Assessment Table

KPI #	List of Program KPIs Approved by the Institution	KPI Target Benchmark	KPI Actual Benchmark	KPI Internal Benchmarks	KPI External Benchmarks	KPI Analysis	KPI New Target Benchmark
1	The average satisfaction rate of faculty and students to the mission statement.	5	4.65	NA	NA	Actual benchmark result is acceptable (3.12) which is equivalent to 62% of the target benchmark. Although no internal benchmark was available for comparison, PPS mission needs to be publicized more among students, faculty members and stakeholders. Despite the above result, the new PPS target benchmark is 4.	4
2	Students' overall evaluation on the quality of their learning experience (Average rating of the overall quality of their program on a five point scale).	5	4.5	3.27	NA	Overall student evaluation on the quality of their learning experience was highly acceptable. Compared to the internal benchmark (Agricultural Engineering Program, CFAS) our actual target is higher. Our ambition is to maintain or improve the quality of students learning experience.	5
3	Proportion of courses in which student evaluation were conducted during the year.	100%	100%	100%	NA	Student evaluations are intended to reflect course design, teaching skills, student interaction and departmental expectations. Therefore, PPS requires that student evaluation for all courses should be conducted at the end of each semester. Results are used to pinpoint needs (if any) for improvement. In this regard, excellent actual benchmark has been achieved.	100%

Kingdom of Saudi Arabia
National Commission for
emic Accreditation & Assessment

المملكة العربية السعودية

الهيئة الوطنية للتقويم

والاعتماد الأكاديمي

4	Students' overall evaluation on the quality of their courses (Average rating of students on a five-point scale on overall evaluation of courses)	5	4.25	3.87	NA	Students highly valued the quality of their courses compared to the internal benchmark (Agricultural Engineering Program, CFAS). PPS will continue to improve course quality through evaluation of course and program reports.	4.5
5	Percentage of students entering programs who successfully complete first year.	100%	67%	70%		Over the past 5 years, the average percentage of students who successfully completed their first year was acceptable (67%). It is noticed that few students temporarily withdrew from the University for personal reasons. This may have substantiated the number of students who did not complete the first year in their PPS program. Actual benchmark is comparable to internal benchmark (Agricultural Engineering Program, CFAS).	80%
6	Proportion of students entering undergraduate programs who complete those programs in specified time.	100%	44.4%	33.3 %	NA	In PPS program, students should normally complete their studies in 4 years. The main cause behind the extended period of graduation of belatedly students is the failure to pass the basic courses such as general chemistry, math and physics from the first time. Furthermore, due to the individual variations among students, any student who fails to pass any course is not allowed to register for more	50%

Kingdom of Saudi Arabia
National Commission for
emic Accreditation & Assessment

المملكة العربية السعودية

الهيئة الوطنية للتقويم

والاعتماد الأكاديمي

						than the designated credit hours in the curricula. Moreover, CFAS does not offer summer courses to help those students catch up with their cohort. Actual benchmark is relatively higher than the internal benchmark.	
7	Proportion of graduates from undergraduate programs who within six months of graduation are enrolled in further study.	35%	25%	NA	NA	In 2012, it was found that 25% of graduates from PPS program were enrolled in MSc program. Although no internal or benchmarks were available, we expect this value to be good reflection of student performance in PPS program both in terms of seeking jobs and qualification for postgraduate studies.	30%
8	Proportion of teaching staff with verified doctoral qualifications.	100%	80%	NA	NA	The percentage (80%) of teaching staff are qualified with doctoral degree is highly acceptable. The remaining teaching staffs (78%) are qualified with at least master degree.	90%
9	Student evaluation of academic and career counselling (Average rating on the adequacy of academic and career counselling on a five point scale).	5	4.3	3.66	NA	The PPS program has achieved good result in providing academic and career counselling to students compared to the internal benchmark (Agricultural Engineering Program, CFAS). The program is committed to improve and/or maintain student counselling.	4.5
10	Student evaluation of library and	100%	77%	NA	NA	Although the Plant Production doesn't have a library for its own,	80%

Kingdom of Saudi Arabia
National Commission for
emic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

	learning resources services.					the role of the PPS program is to recommend and request the deanship of libraries to provide the necessary and latest academic learning resources for PPS students. Students are satisfied with library and learning resources services.	
11	Number of accessible computer terminals per student.	1	1.0	NA	NA	The CFAS provides two computer labs with 20 computer terminals in each. These terminals are available to all students including the PPS program students. A computer technician expert supervises the two labs and provides technical assistance to students. Also, most of the department laboratories are equipped with computer terminals normally used by post graduate students.	1
12	Average overall rating of adequacy of facilities and equipment in a survey of teaching staff.	5	4.45	NA	NA	Excellent actual benchmark was achieved in terms of adequacy of facilities and equipment. As with some other KPIs, it is not possible to compare this achievement with neither internal nor external benchmarks.	4.5
13	Ratio of students to teaching staff (Based on full time equivalents)	8:1	7:1	9:1	NA	Ratio of students to teaching staff in the PPS program is acceptable. Compared to the internal benchmark (Agricultural Engineering Program, CFAS), PPS is not far from achieving the target benchmark. However, PPS program has to work hard to maintain this	8:1

Kingdom of Saudi Arabia
National Commission for
emic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

						ratio through recruitment of new students.	
14	Proportion of teaching staff leaving the department for reasons other than age recruitment.	0	0	0	NA	The PPS program has achieved its target benchmark. During the last two years, no single teaching staff left the department for reasons other than age recruitment.	0
15	Proportion of teaching staff participating in professional development activities during the past year.	50%	40%	NA	NA	The PPS program is approaching its target benchmark regarding teaching staff participation in professional development activities.	45%
16	Number of citations in refereed journals in the previous year per full time equivalent teaching staff.	15	10	9.6	NA	The number of citations in refereed journals in the previous year per full time teaching staff is about 67% of target benchmark. Actual target is slightly higher than internal benchmark indicating the good research quality of staff members.	12.5
17	Number of refereed publications in the previous three years per full time members of teaching staff.	3	2.66	NA	NA	The average number of publications per full time member of teaching staff is highly acceptable. The reason behind this high number was that more emphasis was directed to research due to the relatively low teaching load. The department took advantage of KSU established program to attract outstanding professors and researchers to strengthen its research program in	2.75

Kingdom of Saudi Arabia
National Commission for
emic Accreditation & Assessment

المملكة العربية السعودية
الهيئــة الوطنيــة للتقويـم
والاعـتمـاد الأكاديمـي

						all fields of PPS interests.	
18	Proportion of full time members of teaching staff with at least one refereed publication in the previous year.	100%	80 %	76%	NA	A very good result (80 %) of the targeted benchmark was achieved. This result is slightly better than the internal benchmark (Agricultural Engineering Program, CFAS).	85%
19	Number of papers or reports presented at academic conferences during the last year per full time member teaching staff.	2	1.1	0.8	NA	The academic participation of staff members in conferences is good. 55% of the target benchmark was achieved. The actual benchmark is higher than the internal benchmark. Like other chosen KPIs, it was difficult to measure the performance of PPS program against external benchmarks as there are no official agreement between CFAS and other international counterparts.	1.5
20	Number of research article published (2011-2012) by graduate students or recent graduate based on their thesis research as a percentage of the number of post-graduate students.	30%	22 %	NA	NA	The percentage (22%) of graduate students published articles based on their thesis is acceptable. Despite that, the university roles do not obligate post graduate students (for MSc) to publish articles from their thesis. Nevertheless, the Plant Production Department encourages post graduate students to publish their findings.	25%
21	Research income from external sources in the past	7%	5 %	NA	NA	Seventy one percent of targeted benchmark was achieved in terms of research income from external	5.5%

Kingdom of Saudi Arabia
National Commission for
emic Accreditation & Assessment

المملكة العربية السعودية
الهيئـة الوطنيـة للتقويم
والاعـتمـاد الأكـاديمـي

	year as proportion of the number of full time teaching staff members.				sources (KACST, NPST, SABIC, MoHE and DSR) per full time teaching staff members. Although no internal or external benchmarks are available, teaching staff members are encouraged to seek more research income from external sources through opening new channels with stakeholders.	
22	Proportion of full time teaching and other staff actively engaged in community service activities.	25%	23.8%	NA	NA	Ninety five percentages (95%) of the targeted benchmark was achieved. The department will continue to maintain this level.	25%

Analysis of KPIs and Benchmarks:

Twenty two   identified KPIs were used to evaluate and compare the PPS program performance with target benchmark for the academic year 2011- 2012. The performance was highly satisfactory in most chosen KPIs with a distinguished performance in research. Out of twenty two KPIs, 86.4% were accomplished with high performance (ranging between 71- 100% achievement). Only 4.5% of KPIs were achieved with fair performance (76%) and two KPIs were achieved with a performance between 50-60%. Fourteen internal benchmarks were used, while no external benchmarks were available for comparison of PPS quality performance with a peer program.

NOTE   The following definitions are provided to guide the completion of the above table for Program KPI and Assessment.

KPI refers to the key performance indicators the programs used in the SSRP and are approved by the institution (if applicable at this time). This includes both the NCAAA suggested KPIs chosen and all additional KPIs determined by the program (including 50% of the NCAAA suggested KPIs and all others).

Target Benchmark refers to the anticipated or desired outcome (goal or aim) for each KPI.

Actual Benchmark refers to the actual outcome determined when the KPI is measured or calculated.

Internal Benchmarks refer to comparable benchmarks (actual benchmarks) from inside the program (like data results from previous years or data results from other departments within the same college).

Kingdom of Saudi Arabia
National Commission for
emic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

External Benchmarks refer to comparable benchmarks (actual benchmarks) from similar programs that are outside the program (like from similar programs that are national or international).

KPI Analysis refers to a comparison and contrast of the benchmarks to determine strengths and recommendations for improvement.

New Target Benchmark refers to the establishment of a new anticipated or desired outcome for the KPI that is based on the KPI analysis.

Program Action Plan Table

Directions: Based on your "*Analysis of KPIs and Benchmarks*" provided in the above Program KPI and Assessment Table, list the recommendations identified below.

No.	Recommendations	Action Points	Assessment Criteria	Responsible Person	Start Date	Completion Date
1	**Strengthening students' enrollment**	The department seeks to recruit a minimum of 10 students per year. The following measures will be taken. 1- Update the department web page to introduce the program to potential students and address potentially available career for PPS program graduates. 2- Continue communicating the PPS message at the PY program. 3- Prepare and distribute booklets and brochures that describe the PPS program profile activities and potential career for PPS students. 4- Arrange for visits to high schools in cities and villages surrounding Riyadh.	Monitor students' enrollment, transfer and withdraw.	Department's committees for Administration, Learning and Teaching and Committee for Public Relations and Community Services.	2012	2017

Kingdom of Saudi Arabia
National Commission for
emic Accreditation & Assessment

المملكة العربية السعودية
الهيئـة الوطنيـة للتقويم
والاعتمـاد الأكاديمـي

		5- Invite high school students to field days at the Agricultural Research and Experimental Station in Dirab. 6- Participate in non-academic activities of high schools.			
2	**Seek external benchmarks.**	The plan is to address this issue by communication with respected local, regional and international peer institutes through the CFAS deputy dean for quality and development.	Monitoring the response of local, regional and international peer institutes to CFAS request.	The department Committee for Quality Assurance and Accreditation and the department head will be in charge of following this issue.	2012	2015
3	**Encourage staff members to express PPS mission in their academic and public activities.**	The department plans to express its mission through faculty academic and public activities.	Evaluating the feedback of the questionnaires.	The department Committee for Quality Assurance and Accreditation will be in charge of implementing	2012	2015

Kingdom of Saudi Arabia
National Commission for
~emic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

				this issue.		
4	**Build question bank.**	It is intended to establish secure and electronic question banks for all PPS courses.	Monitoring the number and diversity of the questions per course.	The department Committee for Learning and Teaching will be in charge of implementing this issue.	2012	2016
5	**Use SMS and direct mobile calls to follow up the slow and belatedly students.**	To promote the use of the communication to follow up counselling and communication with students.	Monitoring the number of beneficiaries from this service.	The department Committee of Student Affairs and department secretary will be in charge of implementing this issue. The department secretary task will be limited to handling the messages.	2012	2015
6	**Establish a departmental central laboratory equipped with state-of-the-arts facilities and equipment.**	The department intends to establish central analytical laboratory.	Monitoring the number of available equipment, trained technicians and number of provided services.	The department Committee for Facilities and Equipment will be in charge of implementing this action under the	2012	2016

Kingdom of Saudi Arabia
National Commission for
emic Accreditation & Assessment

المملكة العربية السعودية

الهيئة الوطنية للتقويم

والاعتماد الأكاديمي

				supervision of the department head.		

Action Plan Analysis (List the strengths and recommendations for improvement of the Program Action Plan).

Based on the analysis of KPIs and benchmarks, the above action plan was proposed to improve PPS program. Below is a list of strengths and recommendations on the action plan.

List of Strengths:

1. Action plan for maintaining 8:1 student is affordable and can be achieved.
2. Action plan for program quality evaluation and improvement is reasonable and can be achieved.
3. Generally, action plan to maintain equipment and facilities is rational.
4. Action plan to improve research outcomes is affordable and attainable.
5. Action plan on cooperation between PPD and public and private sectors is reasonable and manageable.
6. Action plan to improve stakeholders' perceptions of program outcomes is rational and adaptable.

List of Recommendations:

1. Propose a revision of admission policy at the university to ease the effect of the preparatory year on PPS student enrolment.
2. Propose specifically designed training courses by the Deanship of Skills Development (DSD) to meet the needs of program quality improvement.
3. Propose establishment of a maintenance unit for scientific equipment at CFAS.
4. Activate post-doctorate fellowship and sabbatical leave programs at the university.
5. Activate and improve the collaboration agreement with Saudi Agricultural Group (SAG) and Ministry of Agriculture.
6. Work in partnership with international universities, institutions and agricultural organizations to accommodate CTC off-campus.

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكة العربية السعودية
الهيئة الوطنية للتقويم
والاعتماد الأكاديمي

Attachments:

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

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

Authorized Signatures

Dean / Program Chair	Name	Title	Signature	Date
Program Dean or Chair of Board of Trustees Main Campus	Dr. Fahad N. I. Al-Barakah	Professor		
Vice Rector				