ATTACHMENT 2 (m)

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

Self-Study Report
(SSR)

College of Food and Agricultural Sciences
Department of Animal Production
King Saud University

May 2014

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Acknowledgement

I take this opportunity to express my profound gratitude and deep regards to the faculty and staff members of Animal Production Department, for the valuable information provided by them in their respective fields. I am grateful for their cooperation during the period of this assignment. Also, I thank almighty Allah and the Department Steering Committee for Quality Assessment and Control for their constant encouragement and continuous day and night hard work without which this assignment would not be possible.

I also take this opportunity to express a deep sense of gratitude to the Dean of the College of Agriculture and Food Sciences and vice Dean for Development and Quality for their constant encouragement throughout the course of preparing this report. The blessing, help and guidance given by them time to time shall carry the department a long way in the journey of quality control and accreditation.

I also take this opportunity to express a deep sense of gratitude to Dr. Catapang for his cordial support, valuable information, exemplary guidance and monitoring which helped the Department in completing this task through various stages.

Prof. Dr. Ahmed A. Alhaidary

Head Department

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Executive Summary

A special Task Force for Quality and Accreditation Committee for the self-study documents preparation (2014) was appointed and chaired by the department head, Prof. Ahmed Ibrahim Al-Haidary, and department accreditation supervisor Prof. Mutassim M. Abdelrahman. This committee worked closely with other departmental subcommittees, the office of Vice Dean of Development and Quality for the College of Food and Agriculture Sciences (CFAS). This committee worked consistently through a weekly meetings to prepare and analyse all the required documents for the 11 standards assigned by NCAAA. The Self Evaluation Scale (SES) was also prepared after several meetings and discussions of the assigned work until the final copy of SSR and SES were developed.

Introductory Comments

A program self-study is a thorough examination of the quality of a program. The mission and objectives of the program and the extent to which they are being achieved are thoroughly analyzed according to the standards for quality assurance and accreditation defined by the NCAAA.

A Self Study Report for Programs (SSRP) should be considered as a research report on the quality of the program. It should include sufficient information to inform a reader who is unfamiliar with the program about the process of investigation and the evidence on which conclusions are based to have reasonable confidence that those conclusions are sound.

Conclusions should be supported by evidence, with verification of analysis and advice from others able to offer informed and independent comments.

This SSRP should include all the necessary information for it to be read as a complete self contained report on the quality of the program.

The main branch/location campus must complete the entire SSRP together with the required information from all branch/location campuses that offer the program.

Each branch/location campus must complete an abridged, short version, of the SSRP; including the *Periodic Program Profile,* Profile sections (A-H) and standards 3, 4, and 11. After analysis and inclusion of required information, the main branch campus will submit the complete SSRP with the abridged versions to NCAAA.

The Self Study Report for Programs template is for an Undergraduate Program. For guidance on the completion of this template, please refer to the *Handbook for Quality Assurance and Accreditation* and to the *Guidelines for Using the Template for a Program Self-Study*.

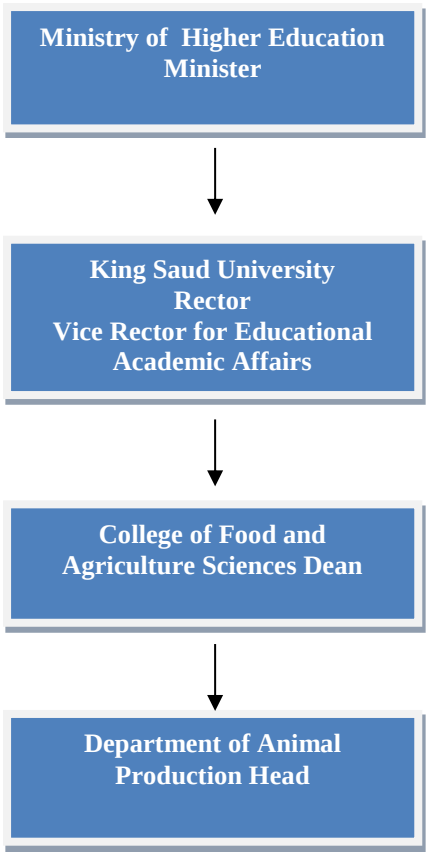
A GENERAL INFORMATION

Institution **King Saud University (KSU)**
Title of College and Department in which the program is offered **College of Food and Agriculture Sciences** **Department of Animal Production**
Title of Program **Animal Production, ANPR**
Date of Report **May 2014**
Name and Contact details for Dean **Prof. Fahad N. Al-Barakah** **Dean of the College of Food and Agriculture Sciences** **Contact number: 0114676535** **Email: barakah@ksu.edu.sa**
Name of Person Responsible for Preparation of Report (Head of Department) **Prof. Ahmed Ibrahim Al-Haidary** **Head of Animal Production Department** **Contact Number: 0114678473** **Email: ahaidary@ksu.edu.sa** Name and contact details for person to contact for further information about matters discussed in the report and for arrangements for an external review visit. (if different from above) **Prof. Mutassim Mohamed Abdelrahman** **Department Accreditation Supervisor** **Contact Number: 0114693309** **Email: amutassim@ksu.edu.sa**

B. GENERAL PROGRAM PROFILE INFORMATION

1. Program title and code **Animal Production, ANPR**
2. Credit hours required for completion of the program **135 credit hours**
3. Award (s) granted on completion of the program (for community college programs, add degree granting policy) B. Sc.
4. Major tracks or pathways within the program **None**
5. Professional occupations (licensed occupations, if any) for which graduates are prepared • **Teaching Assistants.** • **Agricultural Research Assistants.** • **Laboratory Technicians** • **Animal Feed industry engineers.** • **Extension specialists** • **Animal Production Manufacturing Specialists**
6. Name of program chair/ coordinator. If a program coordinator or manager has been appointed for the female section as well as the male section, include names of both. • **The department offers the appointed degree only for male section.** • **Prof. Ahmed Ibrahim Al-Haidary, Department Head**
7. Branches/locations of the program. If offered on several campuses or by distance education as well as on-campus, including details. 1. **Deriya University Campus** 2. **The department has also an educational and experimental farm unit at Al-Ammarieh District which is around 20 kms. far from the university campus.**
8. Date of approval of program specification within the institution 2**005**
9. Date of approval by the authorized body (Ministry Of Higher Education "MoHE" for private institutions) and Council of Higher Education for public institutions). - **The department approved by MoHE in 1965 (1385 H).**

10. Date of most recent self-study (if any) **2012**
11. Provide Institutional and Program level administrative flowcharts



Note that a number of other documents giving general information about the program should be provided in addition to the program report. See list at the end of this template.

C. PERIODIC PROGRAM PROFILE TEMPLATE

TABLE 1: COLLEGE DATA

College: Science of Food and Agriculture Program: Animal Production 2012-2013 (1433/1434 H)

***(On Campus Programs, Distance Learning)**

No.	Faculty/ Teaching Staff Names			Nationality	Academic Rank	General Specialty	Specific Specialty	Institution Graduated From	Degree	*Study Mode	List Courses Taught This Academic Year	Full or Part Time	
	Name	M	F									F/T	P/T
1	Ahmed Alhaidary	√		Saudi	Professor	Animal Physiology	Environmental Physiology	University of Missouri-Columbia	Ph. D	On Campus Programs	ANP 260- Animal Production and Poultry Housing: Environment and Control	√	
2	Mohamed Jafar Al-Hassan	√		Saudi	Associate Professor	Veterinary Medicine	Theriogenology	Washington State University	Ph. D	On Campus Programs	ANP 346- Equine Production	√	
3	Mohamed Alshaikh	√		Saudi	professor	Animal Production	Lactation	University of Nottingham, UK	Ph. D	On Campus Programs	ANP 220 - General Physiology	√	
4	Hamad A. Al-Batshan	√		Saudi	Associate Professor	Poultry Production	Poultry Nutrition	North Carolina State University	Ph. D	On Campus Programs	ANP 334- Poultry Nutrition	√	

5	Saeid Mohamed Basmaeil	√		Saudi	professor	Animal Production	Animal Nutrition	Glasgow University, UK	Ph. D	On Campus Programs	ANP 256- Camel Production	√	
6	Mohamed Ahmed Abouheif	√		Egyptian		Animal Production	Sheep Production	University of Wyoming	Ph.D	On Campus Programs	ANP 326- Sheep and Goat Production	√	
7	Ayman Abdel-Aziz Swelum	√		Egyptian	Assistant professor	Veterinary medicine	Theriogenology	Zagazig University	Ph.D	On Campus Programs	-	√	
8	Riyadh Saleh Ali Aljumaah	√		Saudi	Associate professor	Animal Science	Animal breeding and Genetics	University of Nebraska-Lincoln, USA	Ph.D	On Campus Programs	ANP 402- Field Training	√	
9	Alaeldein Mahmoud Abudabos	√		Jordanian	Associate Prof	Nutrition	Poultry Nutrition	Clemson University	Ph.D	On Campus Programs	ANP 106 - Introduction to Animal Production Systems	√	
10	Mutassim Mohamed Abdelrahman Mohamed	√		Sudanese	Professor	Animal Nutrition	Ruminant Nutrition	Washington State University	Ph.D	On Campus Programs	-	√	
11	Moez A. AYADI	√		Tunisian	Assistant professor	Animal Physiology	Milk production	Universite Autonome de Barcelone Spain	Ph. D	On Campus Programs	ANP 320- Dairy Cattle Production ANP 456- Dairy Cattle Breeding	√	
12	Ibrahim Abdullah M. Alhidary	√		Saudi	Assistant Professor	Animal Production	Ruminant Nutrition	Queensland University	Ph. D	On Campus Programs	ANP106- Introduction to Animal Production Systems	√	
	Saud Ibrahim Al-	√				Poultry	Poultry	University of	Ph. D	On	ANP 464-	√	

13	Mufarrej			Saudi	Professor	Diseases	Diseases and Immunology	Liverpool		Campus Programs	Poultry Diseases and control		
14	Mohammed Abdullah Alodan	√		Saudi	Assistant Professor	Animal Physiology	Poultry Physiology	University of Nebraska	Ph. D	On Campus Programs	-	√	
15	Abdullah Ali ALSobayel	√		Saudi	Professor	Poultry Production	Poultry breeding and production	Michigan State University	Ph. D	On Campus Programs	ANP 226- Breeding and Genetic Improvement ANP 452- Poultry Breeding	√	
16	Hasabelrasoul H. Mohamed	√		Sudanese	Assistant Professor	Veterinary Medicine	Animal Physiology	University of Utrecht, Netherlands	Ph. D	On Campus Programs	ANPR 252- Comparative Physiology of Farm Animals	√	
17	Abdullah N. Al-Owaimer	√		Saudi	Professor	Animal production	Meat science and production	Iowa State University	Ph. D	On Campus Programs	ANP 458- Meat Production	√	
18	Tarek M. Shafey	√		Egyptian	Professor	Poultry Sciences	Poultry Nutrition and Production	University of Queensland	Ph. D	On Campus Programs	ANP 258- Poultry Production	√	
19	Ahmed Mohamed El-Waziry	√		Egyptian	Professor	Animal Nutrition	Rumen Microbiology	Kagoshima University	Ph. D	On Campus Programs	ANP 338- Ruminant Nutrition	√	
20	Aly Bassunny Okab	√		Egyptian	Professor	Animal Production	Environmental Physiology	Alexandria University	Ph. D	On Campus Programs	-	√	
	Mansour Faris	√			Professor	Veterinary	Veterinary	University of	Ph. D	On	ANPR 328-	√	

21	Hussein			Sudanese		Medicine	Pathology	London -UK		Campus Programs	Animal and Poultry Health ANPR462- Animal Diseases		
22	Mansour M. A. Alfuraiji	√		Saudi	Associate Professor	Animal physiology	Reproduction Physiology	Aberdeen University-UK	Ph. D	On Campus Programs	ANP 322- Reproduction of Farm Animals- ANP 401 Field Training	√	
23	Khalid Ibn ElWalid Ahmed Abdoun	√		Sudanese	Associate Professor	Animal Physiology	Veterinary medicine	Free University of Berlin	Ph. D	On Campus Programs	-	√	
24	Raed Mahmoud Al-Atyat	√		Jordanian	Associate Professor	Animal breeding	Animal Biotechnology	New England University- Australia	Ph. D	On Campus Programs	ANP 466- Modern Technology in Animal Breeding	√	
25	Gamaleldin Mustafa Suliman Mohamed	√		Sudanese	Assistant professor	Animal Production	Meat Production and Quality	University of Khartoum	Ph.D	On Campus Programs	-	√	
26	Hilal Yaqoob Syed6	√		Indian	Assistant Professor	Biochemistry	Assisted Reproductive Technology	Allahabad Agriculture University	Ph. D	On Campus Programs	-	√	

College: Science of Food and Agriculture Program: Animal Production 1433/1434

Lecturer and teaching assistant

***(On Campus Programs, Distance Learning)**

No.	Faculty/ Teaching Staff Names			Nationality	Academic Rank	General Specialty	Specific Specialty	Institution Graduated From	Degree	*Study Mode	List Courses Taught This Academic Year	Full or Part Time	
	Name	M	F									F/T	P/T
1	Abdullah A. Almulhem	√		Saudi	Lecturer	Poultry	-	KSU	MSc.		ANPR 106, Introduction to Animal Production Systems. ANPR 402, Field Training	√	
2	Yousef A. Alhawas	√		Saudi	Lecturer	Animal Production	-	KSU	MSc.		ANPR 106, Introduction to Animal Production Systems. ANPR 458, Meat Production.	√	
3	Mohamed A. Elbadry	√		Egyptian	Teaching Assistant	Animal Production	-	Alazhar University	BSc.		ANPR 226, Practical Breeding and Genetic Improvement ANPR 336, Practical Animal and Poultry Production.	√	
4	Elsayed O. Hussin	√		Egyptian	Lecturer	Poultry	-	KSU	MSc.		ANPR 258, Poultry Production.	√	

5	Hassan M. Metwally	**√**		Egyptian	Teaching Assistant	Animal Production	-	Ain Shams	BSc.		ANPR 460, Feed and Feed Formulation for Poultry and Ruminants. ANPR 338, Ruminant Nutrition	**√**	

Number of Graduates in the Most Recent Year (2012-2013)

	Undergraduate Students	**Post Graduate Masters Students**	**Post Graduate Ph.D. Students**
Male	**11**	**3**	**0**
Female	**NA**	**NA**	**NA**
Totals	**11**	**3**	**0**

Apparent Student Completion Rate: The number of students who graduated in the most recent year as a percentage of those who commenced those programs in that cohort four, five, or six years previously (e.g. for a four year program the number of students who graduated as a percentage who commenced the program four years previously).

Students	**Undergraduate Programs**			**Postgraduate Programs**	
	Four Years	**Five Years**	**Six Years**	**Master**	**Doctor**
Male	33.3%	33.3%	12.5		
Female	NA	NA	NA		
Totals	33.3%	33.3%	12.5		

Mode of Instruction – Student Enrolment (excluding preparatory program)

Students	On Campus Programs			Distance Education Programs		
	Full time	Part time	FTE	Full time	Part time	FTE
Male	25	0	0	NA		
Female	NA	NA	NA			
Totals	25	0	0	NA	NA	NA

Note: FTE (full time equivalent) for part time students assume a full time load is 15 credit hours and divide the number of credit hours taken by each student by 15 (use this formula only for part time students).

Mode of Instruction – Teaching Staff (excluding preparatory program)

Number of Teaching Staff	On Campus Programs			Distance Education Programs		
	Full time	Part time	FTE	Full time	Part time	FTE
Male	31					
Female	NA					
Totals	31	NA	NA	NA	NA	NA

Note: Teaching staff includes tutors, lecturers, and assistant, associate and full professors. This does not include research, teaching, or laboratory assistants. Academic staff who oversee the planning and delivery of teaching programs are included (e.g. head of department, dean for a college, rector and vice rectors).

D. PROGRAM PROFILE DATA

Historical Summary

The Animal Production Department was established in 1385H (1965G), as one of the main departments in the College of Food and Agriculture Sciences in the KSA. The program of Bachelor of Animal Science was introduced in the year 1424H (2003) and so far 11cohorts have successfully graduated. The department has produced about 730 undergraduate students, 57 master and 2 Ph.D. students (academic year 1433-1434.). Each year the program accepts the students and follows the cohort systematically. The program is concerned with teaching sciences of animal and poultry breeding, physiology, nutrition, health and management of livestock sector.

The department is actively engaged in scientific research through the collaboration of industrial sector. In addition, a significant contribution of the faculty members as consultants strengthens the collaboration and cooperation of the department with governmental and non-governmental organizations. This collaboration creates training and job opportunities for students, as well as enhancing the awareness with the problems in the livestock sectors.

The graduate employment outcomes are very significant as 80% of them get their job in related field and are engaged in the following areas of specialization.

- Teaching Assistant in the department (Distinguished graduates).
- Technicians or research assistants in the department.
- Ministry of Agriculture and Water and research centers.
- Ministry of Municipal and Rural Affairs.
- Saudi Wildlife Commission
- Saudi Standards, Metrology and Quality Organization.
- Grain Silos and Flour Mills Organization.
- Specialized agricultural companies: in animal production farms.
- Ministry of Education and Ministry of Labor.

The department has introduced a course (ANPR 400) concerned with cooperative trainings to the students to become self-confident, have leadership quality and confidence. So far, this course has made learners quite interactive through good communication skills and has developed their leadership traits.

The program is unique in its nature as it focuses on Assisted Reproductive Technology, Meat Production, Poultry production and Meat Hygiene. These all activities are conducted on state of the art equipment. In addition, the department provides the latest development in the field of animal production to the farmers

and industrial sector for productive outcomes. One of the problems faced by the program is the lack of active interaction with the farmers which needs to be addressed on priority basis.

Preparatory or Foundation Program

Do you offer a preparatory program **Yes** [x] **No** [ ]

If yes, is the preparatory program is offered is it out-sourced? **Yes** [x] **No** [ ]

If a preparatory or foundation year program is provided prior to entry to this program, are all students required to take that program? **Yes** **N** [x] [ ]

If yes, how many Academic credits are granted into the program and included in the * GPA

What is the total number of credits required by the program?	**135 credit hours**

NOTE: * Credits granted into the program must be included in the GPA

List the courses that are granted into the program.

Table 2. Curriculum Study Plan

Year	Course Code	Course Title	Required or Elective	Credit Hours	College or Department
Preparatory Year, Semester 1					
	CT 140	IT Skills	Required, University obligatory	3	Preparatory Year Deanship
	MATH 140	Introduction to Mathematics	Required, University obligatory	2	Preparatory Year Deanship
	MC 140	Communication Skills	Required, University obligatory	2	Preparatory Year Deanship
	ENGL 140	English (1)	Required, University obligatory	8	Preparatory Year Deanship
Preparatory Year, Semester 2					
	ENT 101	Entrepreneurship	Required, University obligatory	1	Preparatory Year Deanship
	CI 140	Learning, Thinking and Research Skills	Required, University	3	Preparatory Year Deanship

			obligatory		
	MATH 150	Differential Calculus	Required, University obligatory	3	Preparatory Year Deanship
	CHS 150	Health and Fitness (2)	Required, University obligatory	1	Preparatory Year Deanship
	ENGL 150	English (2)	Required, University obligatory	8	Preparatory Year Deanship
2nd Year Semester 1					
	STAT 100	Introduction to Statistics	Required, obligatory course	3(2+1)	Faculty of Food and Agriculture Sciences
	CHEM 101	General Chemistry (1)	Required, obligatory course	4(3+1)	Faculty of Science
	ZOOL 103	Principles of General Zoology	Required, obligatory course d	3(2+1)	Faculty of Science
	AEE 201	Principles of Agricultural Extension	Required, obligatory course	2(2+0)	Faculty of Food and Agriculture Sciences
	AGEC 205	Principles of Agricultural Economics	Required, obligatory course	3(3+0)	Faculty of Food and Agriculture Sciences
	IC 101	Principles of Islamic Culture	Elective course	2(2+0)	Faculty of Education
2nd Year Semester 2	PHYS 101	General Physics (1)	Required, obligatory course	4(3+1)	Faculty of Science
	BOT 102	Botany	Required, obligatory course	3(2+1)	Faculty of Science
	ANPR 106	Introduction to Animal Production Systems	Required, Obligatory course	2(2+0)	Animal Production
	CHEM 108	Introduction to Organic Chemistry	Required, obligatory course	4(3+1)	Faculty of Science
	IC 102	Family in Islam	Elective course	2(2+0)	Faculty of Education
	---	Free course	Elective course	2	
3rd Year					

Semester 1					
	BCH 101	General Biochemistry	Required, obligatory course	4(3+1)	Faculty of Science
	IC 103	Economics System in Islam	Elective course	2(2+0)	Faculty of Education
	PPS 201	Principles of Plant Production	Required, obligatory course	3(2+1)	Plant Production
	AGEC 217	Agricultural Organization Management	Required, obligatory course	3(2+1)	Agriculture Economics
	ANPR 220	General Physiology	Required, obligatory course	3(3+0)	Animal Production
	ANPR 226	Breeding and Genetic Improvement	Required, obligatory course	3(2+1)	Animal Production
	ANPR 254	Farm Animals Physiology Laboratory	Required, obligatory course	1(0+1)	Animal Production

3rd Year Semester 2					
	ANPR 258	Poultry Production	Required, obligatory course	3 (2+1)	Animal Production
	ANPR 320	Dairy Cattle Production	Required, obligatory course	2 (2+0)	Animal Production
	ANPR 322	Reproduction in Farm Animals	Required, obligatory course	2 (1+1)	Animal Production
	ANPR 326	Sheep and Goat Production	Required, obligatory course	2(2+0)	Animal Production
	ANPR 328	Animals and Poultry Health	Required, obligatory course	3(2+1)	Animal Production
	ANPR 338	Ruminant Nutrition	Required, obligatory course	3(2+1)	Animal Production
	ANPR 334	Poultry Nutrition	Required, obligatory course	2 (2+0)	Animal Production
	ANPR 336	Practical Animal and Poultry Production	Required, obligatory	1 (0+1)	Animal Production

			course		
	---	Free Course	Elective course	2	Animal Production
4th Year Semester 1					
	ANPR 400	Cooperative Training		12 (0 +12)	Animal Production
	or				
	ANPR 402	Field Training		3(0 +3)	Animal Production
	---	Department Elective Courses		9	Animal Production
4th Year Semester 2					
	IC 104	Islamic Political System	Elective course	2(2+0)	Animal Production
	ANPR 458	Meat Production	Required, obligatory course	2(1+1)	Animal Production
	ANPR 460	Feed and Feed Formulation for Poultry and Ruminants	Required, obligatory course	2(1+1)	Animal Production
	ANPR 466	Modern Technology in Animal Breeding	Required, obligatory course	2(2+0)	Animal Production
	ANPR 468	Research & Seminar	Required, obligatory course	1(0+1)	Animal Production
	---	Free course	Elective course	2	Animal Production
	---	Elective Courses	Elective course	8	Animal Production

Statistical Summary

NOTE: FOR ALL TABLES IN THIS SECTION A SEPARATE TABLE MUST BE USED FOR EACH BRANCH/LOCATION CAMPUS.

Student Enrolment (Not including preparatory or foundation programs)

Students	**On Campus Programs**			**eLearning Education Programs**		
	Full time	Part time	*FTE	Full time	Part time	*FTE
Male	25					
Female	NA					
Total	25	NA	NA	NA	NA	NA

NOTE: To calculate effective full time equivalents (FTE) for part time students assume a notional full time load is 15 credit hours and divide the number of credit hours taken by each student by 15. (Use this formula only for part time students)

Confirmed enrolment at the beginning of the current academic year

Level/Year of Study	Male	Female	Total
First Year	4	-	4
Second Year	1	-	1
Third Year	5	-	5
Fourth Year	3	-	3
Fifth Year (if applicable)	7	-	7
Sixth Year (if applicable)	5	-	5
Total	25	-	25

Faculty: FTE is calculated as 12 credit hours. The number should not include research, teaching or laboratory assistants.

No. of Staff	On Campus			eLearning Education		
	Full time	Part time	FTE	Full time	Part time	FTE
Faculty	26	NA	NA	NA	NA	NA
Teaching staff	5	NA	NA	NA	NA	NA

NOTE: The number of faculty and teaching academic staff should include:

- Faculty: Assistant, Associate and Full Professors whether involved with teaching, research or both teaching and research.
- Teaching staff: Lecturers, Teaching Assistants, Practical Preceptors
- The number should not include Technicians and Laboratory Assistants.

Faculty and Teaching Staff Highest Qualifications

	Ph.D.		Masters		Others		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Male	26	83.87	3	9.68	2	6.45	30	100
Female	-		-	-	-	-	-	-
Total	26	83.87	3	9.68	2	6.45	30	100

Average Faculty Workload and Class Enrolment

A. Calculate the average number of credit hours taught by the **full-time faculty** for the past year and calculate the average number of students enrolled per class taught.

Full-time Faculty	Average Credit Workload 1st Semester	Average Credit Workload 2nd Semester	Average Class Enrolment 1st Semester	Average Class Enrolment 2nd Semester

Male	4.10	3.49	4.28	4.10
Female	NA	NA	NA	NA
Total	4.10	3.49	4.28	4.10

Provide Analysis – Analyse the entire table and provide detailed class enrolment analysis of the different instructional levels.

1. **Workload Analysis:**
The work load for each staff member was 4.24 credit hrs/ first semester and 3.52 credit hrs/ second semester with an average of 3.88 hrs/ semester. According to the university regulations the credit load for the assistant prof. is 14 hrs, associate is 12 and prof. is 9 credit hours. This means the average load was below the assigned/ allowed credit hours which positively reflect positively on the quality of teaching and field training of the student.

2. Class Enrolment Analysis:

The average number of student enrolled in the class is below 5 students which positively affect the quality of teaching and consequently the graduates.

3. Class Enrolment Level Analysis (Level means post or under graduate levels and year to year levels):

The level of graduate student was below the undergraduate for both semesters with an average of 3.33 graduate students/ course versus 4.8 undergraduate students/ course.

Average Credit Workload – Add the total number of credit hours taught by each individual teaching faculty member, add them all together, and divide by the full-time or part-time number of faculty members.

Average Class Enrolment – Add the total number of students enrolled in all of the classes taught by each individual teaching faculty member and divide the total by the number of classes taught. Add all the totals together and divide by the total number of faculty members.

B. Calculate the average number of credit hours taught by the **part-time faculty** for the past year and calculate the average number of students enrolled per class taught.

Part-time Faculty	**Average Credit Workload 1st Semester**	**Average Credit Workload 2nd Semester**	**Average Class Enrolment 1st Semester**	**Average Class Enrolment 2nd Semester**
Male	**NA**	**NA**	**NA**	**NA**
Female				
Total				

Provide Analysis – Analyse the entire table and provide detailed class enrolment analysis of the different instructional levels.

1. Workload Analysis:

2. Class Enrolment Analysis:

3. Class Enrolment Level Analysis (Level means post or under graduate levels and year to year levels):

C. Calculate the average number of credit hours taught by the **full-time teaching staff** for the past year and calculate the average number of students enrolled per class taught.

Full-time Teaching Staff	Average Credit Workload 1st Semester	Average Credit Workload 2nd Semester	Average Class Enrolment 1st Semester	Average Class Enrolment 2nd Semester
Male	8.20	5.60	2.82	3.15
Female	NA	NA	NA	NA
Total	8.20	5.60	2.82	3.15

Provide Analysis – Analyse the entire table and provide detailed class enrolment analysis of the different instructional levels.

1. **Workload Analysis:**

According to the university regulation, the work load of the teaching staff 9 (Lecturer and teaching staff) is about 16 credit hours/ semester. The load for both semesters is below the assigned credit hours/semester.

2. **Class Enrolment Analysis:**
The average number of student is around 3 student/ course.

3. **Class Enrolment Level Analysis (Level means post or under graduate levels and year to year levels):**
NA

D. Calculate the average number of credit hours taught by the **part-time teaching staff** for the past year and calculate the average number of students enrolled per class taught.

Part-time Teaching Staff	Average Credit Workload 1st Semester	Average Credit Workload 2nd Semester	Average Class Enrolment 1st Semester	Average Class Enrolment 2nd Semester
Male	NA	NA	NA	NA
Female				
Total				

Provide Analysis – Analyse the entire table and provide detailed class enrollment analysis of the different instructional levels.

1. Workload Analysis:

2. Class Enrolment Analysis:

3. Class Enrolment Level Analysis (Level means post or under graduate levels and year to year levels):

E Self-Study Process

Provide the following:

- Provide a summary description of the procedures followed and administrative arrangements for the self- study.
- Provide a quality assurance organization flowchart.
- Describe membership and terms of reference for committees and /or working parties.

For the self-study document preparation (2014), a special Task Force for Quality and Accreditation Committee was appointed and chaired by the department head, Prof. Ahmed Ibrahim Al-Haidary, and department accreditation supervisor Prof. Mutassim M. Abdelrahman. This committee worked closely with the office of Vice Dean of Development and Quality for the College of Food and Agriculture Sciences (CFAS). This committee worked consistently through a weekly meeting to prepare and analyse all the required documents for the 11 standards assigned by NCAAA. The Self Evaluation Scale (SES) was also prepared after several meetings and discussions of the assigned work until the final copy of SSR and SES were developed. However, the present self-study documents were initiated based on the previous accreditations studies.

In 2012, the Agricultural Institutes of Canada (AIC) evaluated and accredited the APS program with minor comments. Moreover, recently a consultant from a local university, who is very familiar with NCAAA system and accreditations, was invited as independent academic reviewer and his suggestions and comments were provided. The consultant's comments were considered to reflect the all changes and developments that took place in the department in the period between these studies. Moreover, throughout the SSR writing process, the NCAAA guidelines and accreditation expertise comments were considered and relevant information were included in the write up.

In summary, the main objectives of conducting this self-study of the Department of Animal Production were to:

1. To identify the strengths, weaknesses as well as areas for potential improvement and priorities for action required for the program.

2. To develop a comprehensive strategic and quality assurance plans together with indicators and benchmarks for further improvements in addition to preventative and corrective actions.

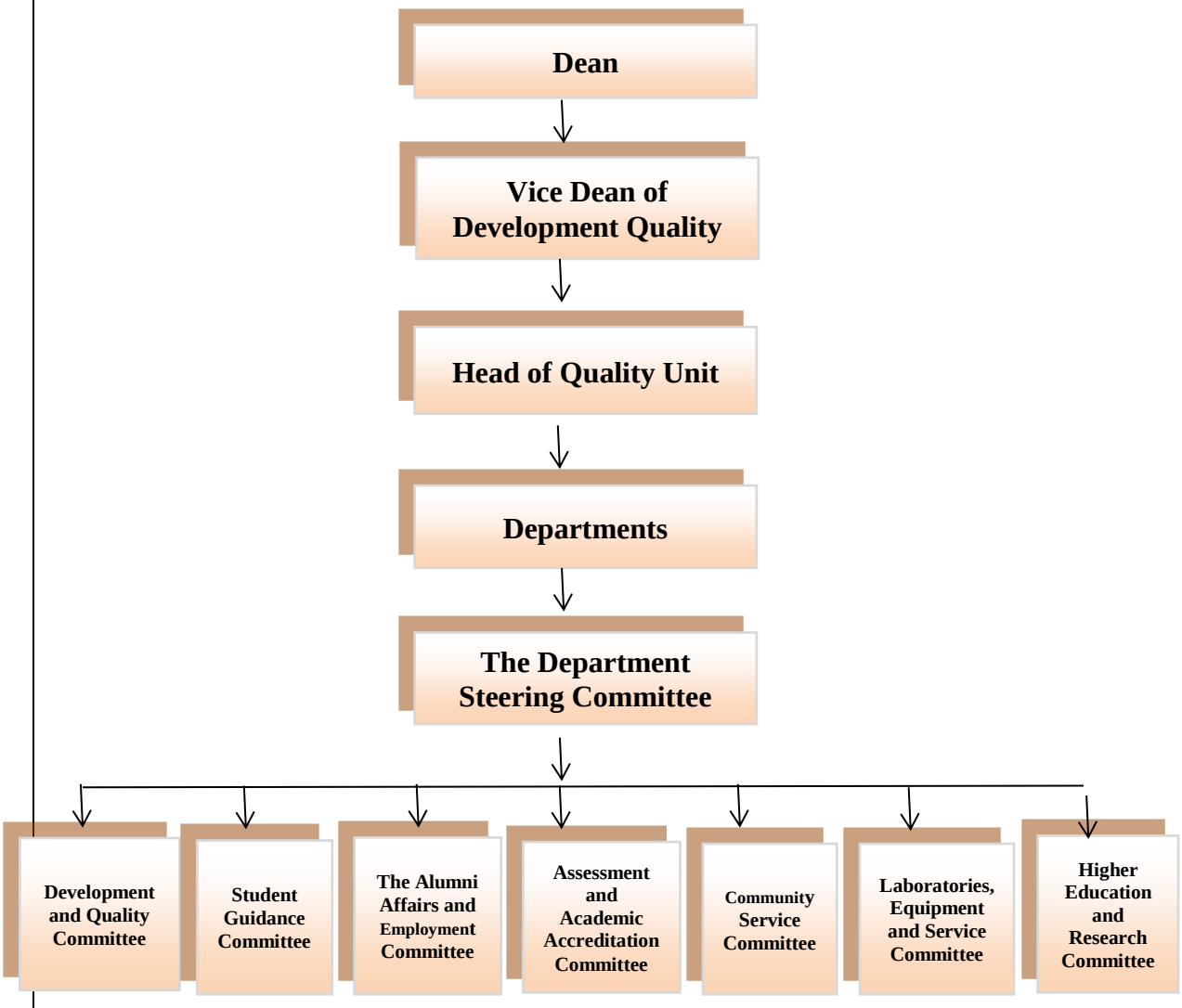
3. To ascertain that the program meets the minimum standards prescribed by the NCAAA.

4. To document and appreciate the contributions of the program towards achievements of the department along with KSU.

5. To ensure conformance of the program delivery in accordance with the national standards plus the preparation of the department for the NCAAA accreditation.

- The chart below consists of the Academic Accreditation System for the College of Food and Agricultural Sciences.

College Academic Accreditation System 1434-1435 H (2013-2014)



• A Committee concerned with Quality Management of the Animal Production Program consists of seven sub- committees under the supervision of a steering Committee. A schematic Diagram explaining this structure is drawn above. Each committee was involved in the SRR document

preparations.

The members of the Departmental Steering Committee are:

1. Prof. Ahmed Ibrahim Al-Haidary **Chair**
2. Prof. Mutassim M. Abdelrahman **Department Accreditation Supervisor**
3. Prof. Aly B. Okab **Member**
4. Dr. Raed M. Al-Atiyiat **Member**
5. Dr. Khalid A. Abdoun **Member**
6. Dr. Gamaleldin Suliman **Member**
7. Eng. Hassan M. Metwally **Member**
8. Eng. Ali M. Al Shaikhi **Member**

The following are the seven sub-committees responsible for one or more of the eleven quality standards presented in the SSR document.

1. Development and Quality Committee

Members
Prof. Ahmed Alhaidary
Prof. Saud Ibrahim Al-Mufarrej
Dr. Riyadh Saleh Ali Aljumaah
Dr. Mohamed Jafar Al-Hassan

2. Assessment and Academic Accreditation Committee

Members
Prof. Mohamed Ahmed Abouheif
Prof. Abdullah N. Al-Owaimer
Prof. Tarek M. Shafey
Dr. Gamaleldin M. Suliman

3. Alumni Affairs and Employment Committee

Members
Prof. Ahmed Alhaidary
Dr. Riyadh Saleh Ali Aljumaah
Prof. Mohamed Alshaikh
Dr. Mohammed A. Alodan

4. Student Guidance Committee

Members
Prof. Ahmed Alhaidary
Prof. Mutassim M. Abdelrahman

Prof. Aly Bassunny Okab

5. Community Service Committee

Members
Prof. Saeid M. Basmaeil
Dr. Ibrahim A. Alhidary
Mr. Saed Swelum

6. Laboratories, Equipment and Services Committee

Members
Prof. Ahmed Alhaidary
Prof. Tarek M. Shafey
Dr. Hamad A. Al-Batshan
Dr. Hasabelrasoul H. Mohamed
Dr. Khalid Ibn ElWalid Abdoun
Prof. Aly Bassunny Okab

7. The Higher Studies and Research Committee

Members
Prof. Mohamed Alshaikh
Prof. Saud Ibrahim Al-Mufarrej
Dr. Ibrahim Abdullah M. Alhidary
Dr. Alaeldein Mahmoud Abudabos
Dr. Mohamed Jafar Al-Hassan

E. MISSION, GOALS AND OBJECTIVES

1. Mission Statement of the Program (Insert the Mission Statement).

Active participation in technical and scientific renaissance that started to be regular in the country and enriched-research, teaching and guidance in the field of animal production and food security.

Use the following table and write clear, measurable goals and objectives of the program and align each one with quality performance indicators and the target benchmark.

NOTE: A SEPARATE TABLE MUST BE USED FOR EACH BRANCH/LOCATION CAMPUS (This table is not r to NCAAA KPIs or the program KPIs).

2. Goals	3. Objectives for each goal	4. Performance Indicators	5. Target Benchmarks
1. Prepare national	1. Enhance the academic excellence	1. Frequency of	Once every 4 years

staff scientifically qualified and practically trained in the various branches of animal production (Animal Breeding, physiology, nutrition, health and biotechnology) to meet the current and futures needs of the country in that speciality.	through regular revision of the academic curriculum. 2. Increase the percentage of staff member with Ph.D. 3. Increase number of professional development courses. 4. Improve the satisfaction of employers regarding the graduates.	curriculum revision and update. 2. Number of Ph.D. holder hired as a percentage of total staff members. 3. Ratio of staff member to undergraduate students. - Number of national and international academic training courses per year. 4. Employers' evaluation regarding the department graduates performance.	80% 10:1 Two national and one international. 3.5 in a scale of 5
2. Work in close cooperation with producers, investors and private sector institutions to achieve the optimum specifications for graduate of the department so that they can address the changes and	1. Increase the number of community service programs. 2. Enhance the consultation hours provided by the department and the proportion of staff members. 3. Cooperative student training	1. Number of community service programs provided by the department. 2. Proportion of staff members involve in consultation and professional work. 3. Number of students involved in the cooperative training per	2 programs/ year 10% 6 students/ year

expected future challenges in the area of specialization.		academic year.	
3. Close the gap between academic education and vocational education in the field of animal production and promotion of academic performance, which in general, reflects positively on society and the nation.	1. Overall assessment of the vocational education students on the quality and satisfaction of the program. 2. The regular updating and reform of program curriculum.	1. Final year student evaluation of the program and satisfaction. 2. Frequency of curriculum revision and changes.	3.5 in a scale of 5 Once every four years
4. Promote and follow up the scientific and technical rapid developments in the field of animal production which would contribute to providing food security by improving productivity.	1. Attending national and international scientific conferences, workshops and meeting in the area of animal production by staff members. 2. Visiting of outstanding national and international scientists and work collaboration. 3. Attraction of distinguished scientist through fellowships to improve the quality of research and	1. Number of conferences attended by the staff members. 2. Number of visiting Scientist per academic year. 3. Number of attracted distinguished scientist.	15 conferences/ year Three scientists per year Two distinguished scientist/ year

	teaching. 4. Practical training courses for laboratory technicians and researchers. 5. Increase number of published paper especially in ISI journals. 6. Budget obtained for research project per staff members.	4. Number of training courses. 5. Number of published papers per year and the proportion of ISI ones. 6. Total research funds obtained per year and per staff member/year.	2 courses/ semester 45 published 75% 7,500,000 SR 250,000 SR/ year

Provide a list of the strengths and recommendations for improvement based on an assessment of this data.

Strengths:

1- The mission and objectives are clear and appropriate.

2- The mission and objectives cover the main functions of the department.

3- The mission is aligned with the college and university mission.

4- The mission is well known among staff, students and employees.

5- Most of the target benchmark is achieved with outstanding performance.

Recommendations for improvement:

1- A system will be developed for national and international benchmarking and analysis of the mission performance.

2- Encouragement of the staff and students to express the mission in their all day academic activities.

3- The decision makers should keep using the mission statement in the decision making and planning processes.

Priorities for action:

1- The mission will be reviewed every 4 years in consultation with students and other stakeholders.

2- The program mission should be publicized locally and regionally.

3. Increase the number of community service programs.

GOALS refer to the major program aims, ambitions, and purposes (**What** the program is attempting to accomplish?)

OBJECTIVES refer to specific action points the program has in place to achieve each goal (**How** is the program attempting to accomplish the goals).

PERFORMANCE INDICATORS refer to the measurement criteria used to evaluate each objective.

TARGET BENCHMARK refers to the intended or desired outcome that is anticipated when each goal is complete.

SUMMARY ANALYSIS refers to a study comparing all the target benchmarks with the actual outcomes determined by the performance indicators (Examine all the goals together and compare and contrast the expected target results with the actual results provided by the performance indicators.). The summary analysis is an overall assessment of the success that the program in achieving its goals.

2. Program Evaluation in Relation to Goals and Objectives for Development of the Program

NOTE:

I. Reports on these items should be expanded as necessary to include tables, charts or other appropriate forms of evidence, including trends and comparisons with past performance, or with other institutions where relevant.)

II. Information should be provided on performance indicators that relate directly in alignment with the mission, goals and objectives

1.**State goal/objective**

Prepare national staff scientifically qualified and practically trained in the various branches of animal production (Animal breeding, physiology, nutrition, health and biotechnology) to meet the current and futures needs of the country in that speciality.

Target benchmark or standard of performance

1. Frequency of curriculum revision and changes**. (Once every four years).**
2. Number of Ph.D. holder hired as a percentage of total staff members of staff member. **(80%).**
3. Ratio of under graduate students to staff member. **(10:1).**
4. Number of national and international academic training courses per year. (**Two national and one international).**

5. Employers' evaluation regarding the department graduates performance. **(3.5)**

Result achieved or actual benchmark

1. The program curriculum was revised before 3 years.
2. The proportion of teaching staff with PhD degree is 83.87%.
3. The undergraduate student/staff ratio is 0.7:1.
4. Two technicians have participated in international training course, and one staff member has participated in national training course.
5. The performance score of employed graduates by their respective employers is 3.49

Comments and analysis

The actual outcomes determined by the performance indicators compared to the target benchmarks for achieving this goal revealed that 60% of the target benchmarks were achieved. It has been targeted to revise the curriculum every 4 years, and to hire at least 80% of teaching staff with Ph.D. degree, and to get a score of 3.5 in the employer's evaluation of the performance of the employed program graduates. The program outcomes concerning these benchmarks have achieved the desired targets, where the curriculum was revised before 3 years, and the actual proportion of teaching staff with Ph.D. degree is 83.87%, and the score for evaluation of the employed program graduates by respective employers is 3.49. However, the target benchmark for undergraduate student/staff ratio and the numbers of national and international academic training courses were not completely achieved, but still there are opportunities to improve these outcomes.

Concerning the student/staff ratio, the actual outcome (0.7:1) was beyond the target benchmark (10:1). This is mainly due to the introduction of preparatory year in the university academic system, where the students are admitted in the preparatory program and then distributed to the different programs in the university pending on their score in the preparatory program and not on their interest. In addition, this gap between the actual outcome and the target benchmark could be due to the weak advertisement policy for the program and the possible employment opportunity of its graduates. Recently, the department adopted advertisement policy to attract candidates to its program including arrangement of visits to the department for secondary school and preparatory college students, which resulted in

improvement of admission rate during this academic year (23 students).

Concerning the participation of the teaching staff in national and international academic training courses, two technicians have participated in advanced analytical laboratories in Jordan. In addition, one staff member has participated in teaching skills training course regularly organized by skill development department at King Saud University for new staff members. However, the actual outcome of 1 national, and 1 international training course participation did not achieve the desired target benchmark of 2 national and 2 international training courses participation. This is due to the lack of motivation among the teaching staff for participation in training courses, because there are no incentives for participation in such training courses; in addition to that, it is not linked to the evaluation and promotion requirements of teaching staff.

2. State goal/objective

Work in close cooperation with producers, investors and private sector institutions to achieve the optimum specifications for graduate of the department so that they can address the changes and expected future challenges in the area of specialization.

Target benchmark or standard of performance

1. The department is targeting to provide two community service programs.
2. The proportion of staff members involved in consulting and professional work is benchmarked at 10%.
3. The target number of students involved in the cooperative training programs per academic is six students per year.

The result achieved or actual benchmark

1. One community service program was provided by the department.
2. The proportion of staff members involved in consulting and professional work was at 4%.
3. No single student joined any cooperative training program.

Comments and analysis

The program failed to meet the target benchmarks for this goal; nevertheless, some efforts were made to reach the acquired results, which are close to the target for the first indicator and to some extend a distance behind, in the second. On the other hand, the final outcome of the third objective was nil. But the brighten face of the situation is that, there are ongoing planned works aiming at hitting the new target benchmarks. These include performing two other community service programs and encouraging staff members to participate in activities outside the department. Some incentives were proposed to support the latter suggestion. In addition, the new curriculum is changed to contain a variety of cooperative programs and some regulations are made to motivate students to join such activities.

3. **State goal/objective**

Close the gap between academic education and vocational education in the field of animal production and promotion of academic performance, which in general, reflects positively on society and the nation.

Target benchmark or standard of performance

1. Overall assessment of the vocational education students on the quality and satisfaction of the program and learning experience. **(3.50)**

2. The regular updating and reform of program curriculum. (**Once every four years).**

.

Result achieved or actual benchmark

1. Rating of student satisfaction in the final year of the program is 3.48

2. Frequency of curriculum revision and changes is set to be once every four years.

Comments and analysis

The program target benchmark of 3.5 closely matches the actual benchmark of 3.48. On the other hand, the regular updating of program curriculum is matching the scheduled actual curriculum revision. Summing up that the gap between academic education and vocational

education is filled by following and achieving the actual benchmark.

4. State goal/objective

Promote and follow up the scientific and technical rapid developments in the field of animal production which would contribute to providing food security by improving productivity.

Target benchmark or standard of performance

1. Number of conferences attended by the staff members. **(15 conferences)**
2. Number of visiting Scientist per academic year. **Three scientists.**
3. Number of attracted distinguished scientist. Two distinguished **scientists**
4. Number of training courses. **Two training courses.**
5. Number of published papers per year and the proportion of ISI ones.
   40 published papers and 75% ISI.
6. Total research funds obtained per year and per staff member/year.
   7500000 SR and 250000 SR/ staff member.

Result achieved or actual benchmark

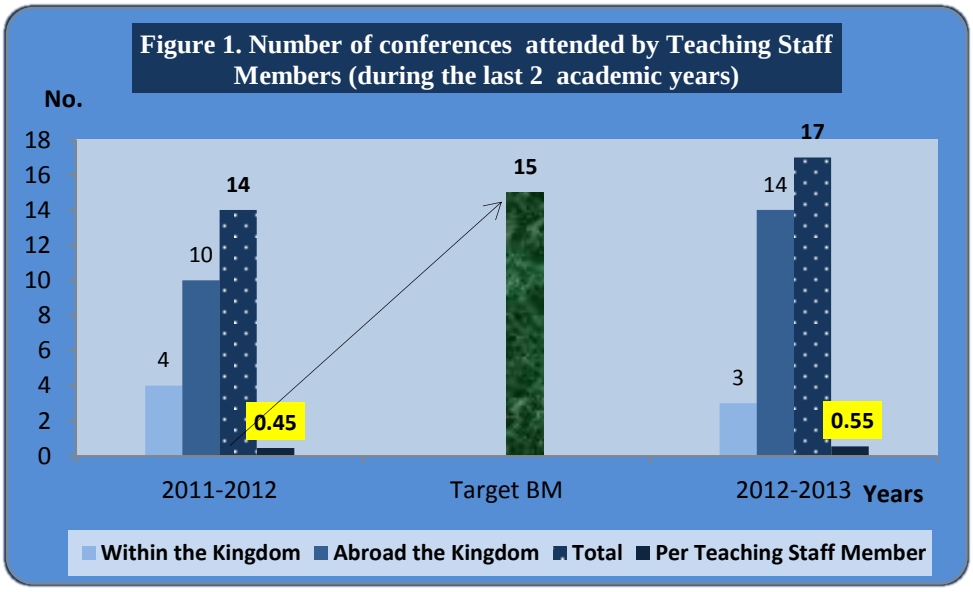
1. The number of academic conferences attended by the staff member was 17 conferences. The figure 1. below shows the number of conferences attended by staff member in the academic years 2011- 2012 and 2012-2013 compared with the target bench mark.
2. During the 2012- 2013 academic year, three international scientists visited the department and presented seminars with an open discussion with the staff members, undergraduate and graduate students.
3. During the 2012- 2013 academic year, two international highly cited and distinguished scientists visited the department to follow up their research program and conduct meetings with students and staff members.
4. Two training course were conducted during 2012- 2013 academic year, one of them was international (Jordan) and the other was national (KSU).

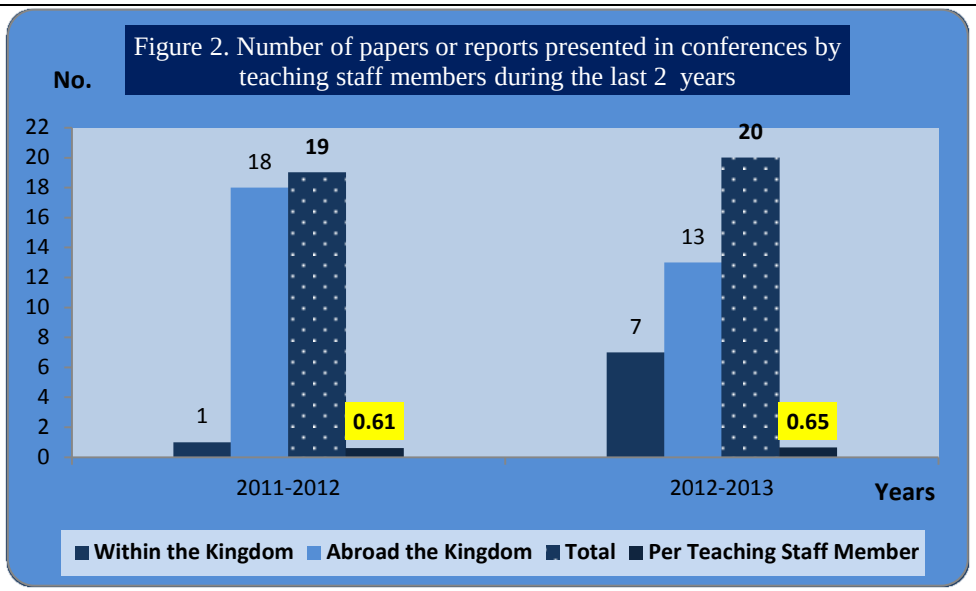
5. The total number of scientific papers published in scientific journal is 50 papers and about 80% of them were published in the ISI journals. The average number of publication per staff member is 1.61.

6. The total budget for the research obtained by the department staff members during the 2012- 2013 academic year is 8605060 SR with an average of 277582.58 SR/ staff member.

Comments and analysis

The number of attended conferences by the staff member during the academic year 2011-2012 is below the target benchmark (15), but it increased significantly to 17 conferences in the academic year 2012-2013 which is above the target benchmark as shown in figure (1) below. Moreover, the total numbers of the papers presented in the conferences were 19 for year 2011-2012 and 30 in the year 2012-2013 as shown in the figure (2).





The department achieved the target benchmark for the international visiting scientists and distinguished visitors. Three international scientists visited the department and presented seminars with an open discussion with the staff members, undergraduate and graduate students. Moreover,

two highly cited international and distinguished scientists visited the department to follow up their research program and conduct meetings with students and staff members.

Regarding the publications, the total number of scientific papers published in scientific journal is 50 papers and about 80% of them published in ISI journals with an acceptable level of citations. The average number of publication per staff member is 1.61. A significant improvement in publications compared with previous years as shown in figures 3, 4, and 5. Furthermore, the target benchmark was achieved.

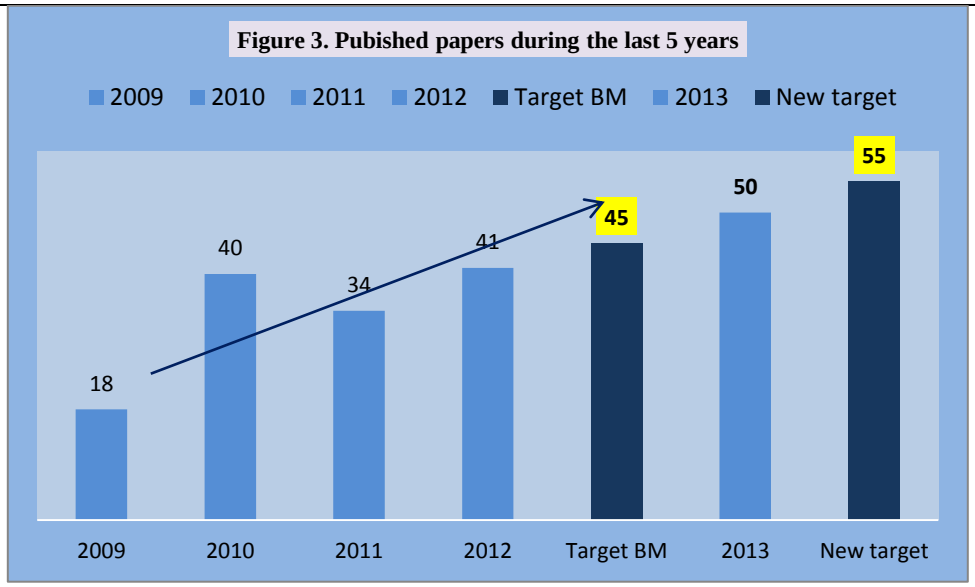


Figure 3. Pubished papers during the last 5 years
2009
2010
2011
2012
Target BM
2013
New target
18
40
34
41
45
50
55
2009
2010
2011
2012
Target BM
2013
New target

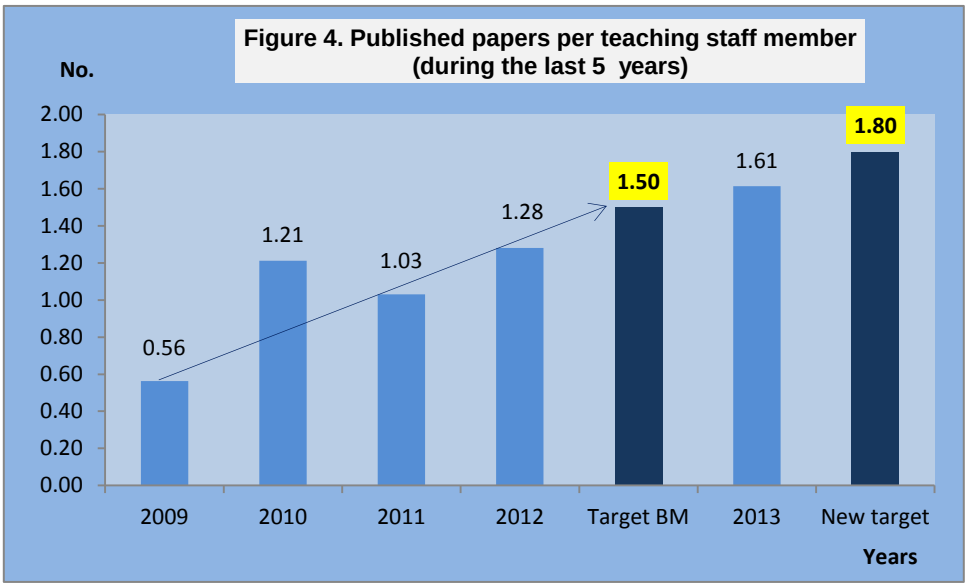
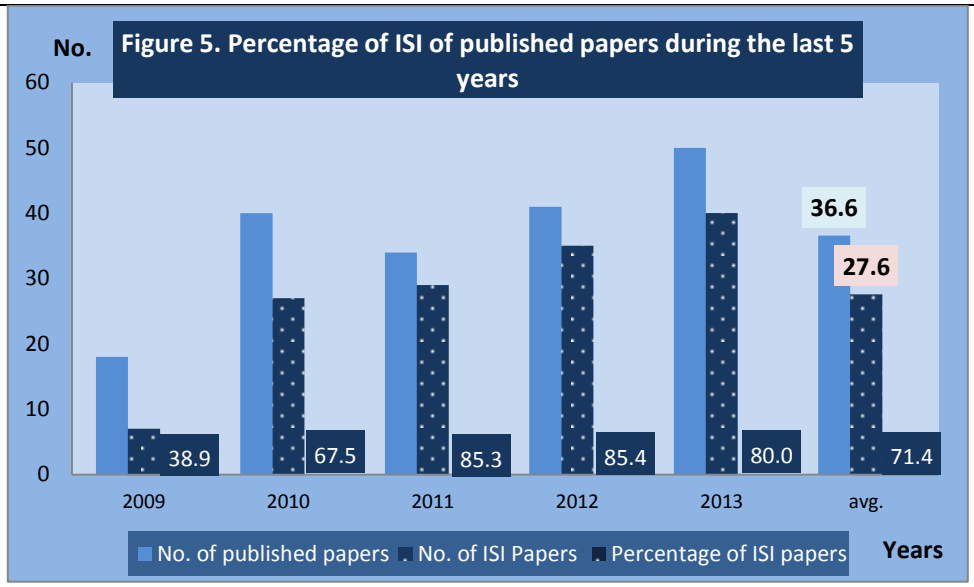
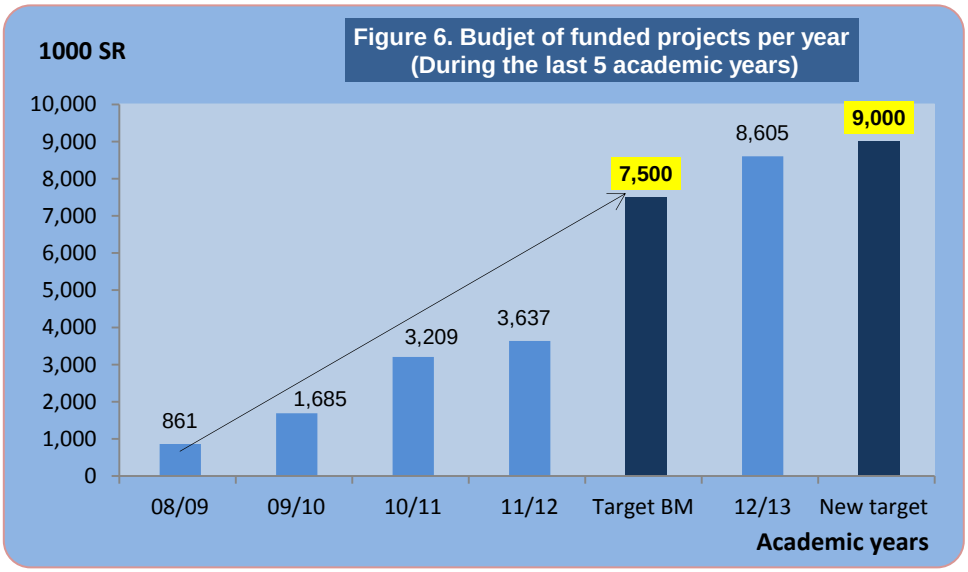
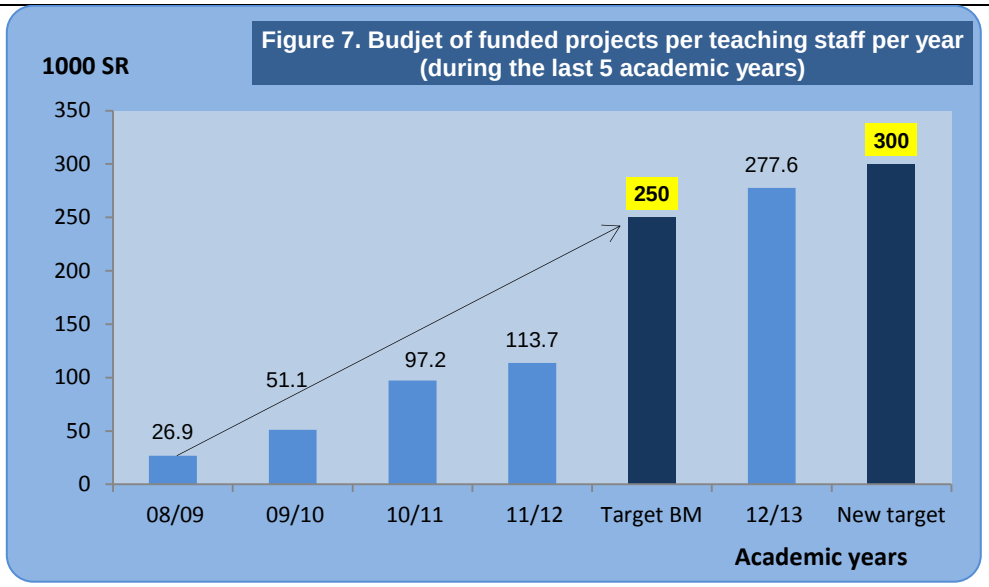


Figure 4. Published papers per teaching staff member
(during the last 5 years)
No.
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.56
1.21
1.03
1.28
1.50
1.61
1.80
2009
2010
2011
2012
Target BM
2013
New target
Years



The total budget for the research obtained by the department staff members during the 2012- 2013 academic year is 8,605,060 SR with an average of 277,582.58 SR/ staff member as shown in figures 6 and 7. The department achieved successfully the target benchmark for the total budget and per teaching staff. It is very clear that the department has a very solid research programs which positively affect the scientific knowledge and consequently the livestock productivity.





F. PROGRAM CONTEXT

1. Describe the significant elements in the external environment (including any important recent changes)

An environmental scan of the external context reveals a number of elements which directly or indirectly affect and/or contribute to the program. These elements are listed below.

1- King Abdullah Graduate Scholarships Program started in 2005 with an agreement with the USA to improve and develop the Saudi student knowledge and skill. There was a strong competition among students in the program to obtain one of these scholarships.

2- Food security is the most important KSA governmental issue. Significant policies have been introduced to improve the efficiency and profitability of the agriculture sector through increased investment.

3- Competing with national, regional and international universities and agriculture colleges which led to the assurance of high quality educational programs.

4- Significant financial support provided to the higher education sector in the KSA.

5- Access to outstanding universities in the region.

6. The annual expenditure on IT has been improved dramatically.

7. Investing in grants is focused on new areas of research in the field of genetics, molecular biology, embryo transfer, feeding and nutrition and others.

8. Information technology and programming has been expanded for students, faculty and all employees in the department.

9. New research facilities and scientific equipment continually added to the department.

10. Saudization of jobs is a national policy of Saudi Arabian government. The Ministry of Labor encouraged employment of Saudi nationals which leads to open many positions in different disciplines.

All the above stated changes have positively contributed to the quality of the program and increased the need for competent graduates of animal production. These graduates are not only competent in their field but the facilities for research provided through external sources have led them to pursue for higher studies abroad.

2. Enrolment Management and Cohort Analysis (complete tables on the following pages)

Cohort Analysis refers to tracking a specific group of students who begin a given year in a program and following them until they graduate (How many students actually start a program and stay in the program until completion).

A **cohort** refers to the total number of students enrolled in the program at the beginning of each academic year, immediately after the preparatory year. No new students may be added or transfer into a given cohort. Any students that withdraw from a cohort may not return or be added again to the cohort.

Cohort Analysis Table 1 provides complete tracking information for the most recent cohort to complete the program, beginning with their first year and tracking them until graduation (students that withdraw are subtracted and no new students are added).

Cohort of the Academic Year tables refer to current cohort tracking that is in progress. A separate cohort tracking table should be provided for each year.

3. Analyze the mission, goals, content, and methods of delivery of the program and describe any implications for changes that may be required in as a result of changes noted under 1 and 2.

One of the crucial stages for any organization is to bring alignment in mission and program goals. Looking at the program mission and goals, it is evident that they are consistent and are the bases

for the strategic direction of the program. Following is a detailed analysis highlighting how the program is achieving the mission and its program goals.

1. Update of study plan:

   a) Introducing several elective and compulsory courses in the new curriculum. The most significant change to improve the field experience of the student is the introduction of cooperative training course to allow students to be self-learners and have more capabilities in problem solving, communication and leadership skills.

   b) Updated or changed of the textbooks.

   c). Classrooms are well equipped for teaching and learning and smart boards are introduced.

   d). More emphasis to use English language as a teaching media.

   e). New computer software for livestock ration formulation and farm management are introduced.

2. New teaching staff and researchers were hired to improve teaching and research quality.

3. The faculty members of the program are continuously developing their skills in teaching through training courses offered by the Deanship of Skills and Development (DSD).

4. Potential cooperation research potential has been developed with the private sector and other governmental funding association.

5. The department has hosted many outstanding professors from overseas for scientific presentations and obtaining valuable comments on our undergraduate programs for further improvement.

6. A number of scientific brochures and booklets have been prepared by the staff members.

7. The e-Learning teaching technology was introduce in the university and in the college class rooms. The staff will be provided with training to teach by electronic methods. Staff with experience in teaching by e-methods will also be one of the important feature required to be appointed by the department.

NOTE: A SEPARATE TABLE MUST BE USED FOR EACH BRANCH/LOCATION CAMPUS.

Enrollment Management and Cohort Analysis (Table 1)

Student Category	2007 - 08	2008 -09	2009- 10	2010 - 11	2011 - 12	2012 - 13
Total cohort enrollment	18					
Retained till year end	18					
Withdrawn during the year and re-enrolled the following year	**0**					
Withdrawn for good	**0**					
Graduated successfully	**0**					

Provide a Cohort Analysis of the Academic Years: 2007 – 2011

The PYP program started in 2009-2010 academic year. Before that, students enrol directly in the department as freshman for academic year 2007-2008. As shown in Table 1, none of the students that enrolled in the program withdrew during the academic year. This may indicate that appropriate student support was provided to the cohort group by the university, department and the teaching staff.

*** PYP - Preparatory Year Program**

Cohort of the Academic Year: 2008 – 2009 (Table 2)

Total student enrollment at the beginning of year		**18**				
Progressed through the year		**18**				
Withdrawn during the year and re-enrolled the following year		**0**				
Withdrawn for good		**0**				
Graduated successfully		**0**				

Provide Analysis

The number of students enrolled in the Animal Production Program for AY 2008-2008 is presented

in Table 2. Data indicates that 18 students progressed through the second year. The progression rate is 100%. Most of the courses for this level are introductory and general agriculture courses. So, these courses are a comparatively easier with advance courses.

Cohort of the Academic Year: 2009 – 2010 (Table 3)

Total student enrollment at the beginning of year			**18**			
progressed through the year			**17**			
Withdrawn during the year and re-enrolled the following year			**0**			
Withdrawn for good			**1**			
Graduated successfully			**0**			

Provide Analysis

During the third year in the department. 5.5% of the total cohort students withdrew from the program for good. About 94.5% of the students progressed throughout the academic year. It is very hard to explain the reason for withdrawn from the program since it is not a significant percentage to be studies.

Cohort of the Academic Year: 2010 – 2011 (Table 4)

Total student enrollment at the beginning of year				**17**		
progressed through the year				**17**		
Withdrawn during the year and re-enrolled the following year				**0**		
Withdrawn for good				**0**		
Graduated successfully				**1**		

Provide Analysis

During the fourth year, only 5.5% of the cohort students graduated on time and the rest progressed in the program. The completion rate is very low during that year and there were studies conducted by the department which led to many changes in the curriculum to improve the low completion rate.

Cohort of the Academic Year: 2011 – 2012 (Table 5)

Total student enrollment at the beginning of year					**16**	
progressed through the year					**16**	
Withdrawn during the year and re-enrolled the following year					**0**	
Withdrawn for good					**2**	
Graduated successfully					**7**	

Provide Analysis

During the fifth year, the completion and graduation rate increased to 38.8% which is considered as an acceptable rate since 5 students (71.4%) of the total 7 students graduated in the first semester of AY 2011-2012. The delay in program completion for the 5 students was only for one semester. Moreover, about 11.1% of the cohort students withdrawn completely from the program.

Cohort of the Academic Year: 2012 – 2013 (Table 6)

Total student enrollment at the beginning of year						**7**
progressed through the year						**7**
Withdrawn during the year and re-enrolled the following year						**0**
Withdrawn for good						**0**
Graduated successfully						**6**

Provide Analysis

During the sixth year in the program, 33.3% of the cohort student graduated and only one student left and moved to the next year for completing his program.

The total number of the graduates from year 4 to 6 was 14 student out of 18 which about 77.8%.

About 16.7% of the cohort students withdrawn for good from the program and only 5.5% spent more than six year to graduate.

G. PROGRAM DEVELOPMENTS

1. Provide a list of changes made in the program in the period since the previous self-study or since the program was introduced. This should include such things as courses added or deleted or significant changes in their content, changes in approaches to teaching or student assessment, or program evaluation processes etc.

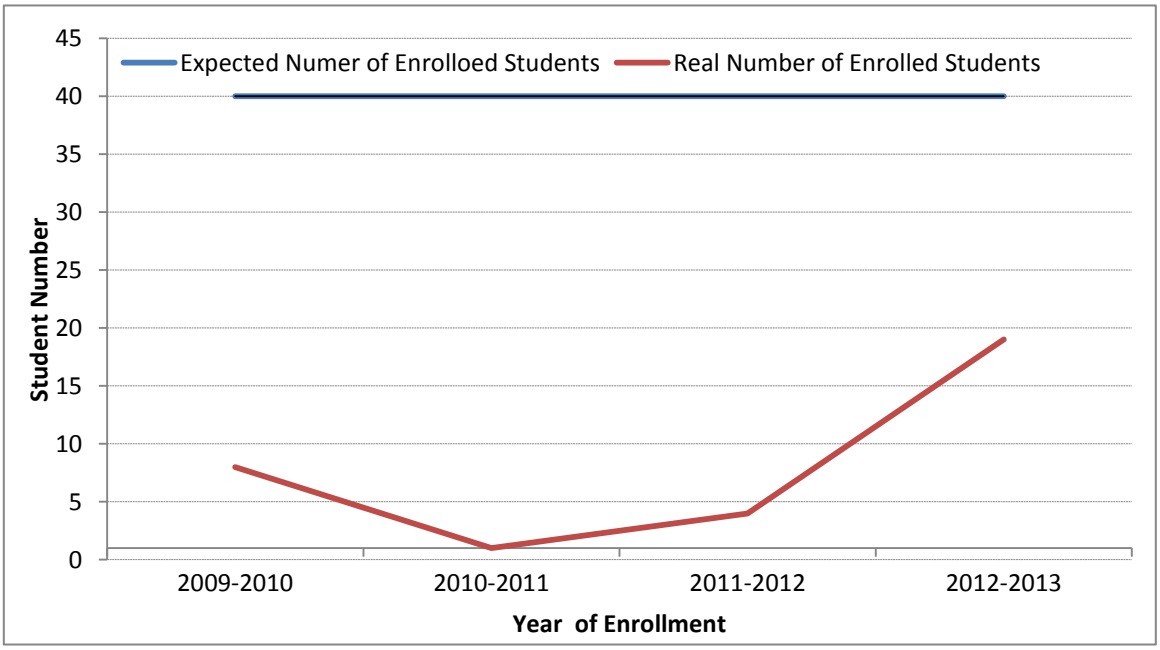
1. In 2009, the university launched the Preparatory Year Program to enhance the skills of students in English language, computer, thinking, communication and entre-partnership, in order to have competitiveness in the labor market.
2. The college has launched its future strategic plan with a new vision and mission to meet the challenge of water scarcity and food security. To contribute in such plan, the program provides high quality education and research to serve the society with the knowledge-based economy.
3. In 2009, the College appointed a new position of Vice Dean for Quality and Development. As a consequence, a permanent committee for quality assurance and management has been formed.
4. The department has hosted many outstanding professors from overseas for scientific presentations and obtaining valuable comments on the undergraduate programs for further improvement.
5. New programs are being introduced to promote e-Learning. So, most of the teaching staff will need to be trained to use the multi-media facilities and other facilities for teaching, which for sure will positively affect the program in one way or another.

2. **Comparison of planned and actual enrollments table**.

Year	Planned Enrollment	Actual Enrollment
Year	Planned Enrolments	Actual Enrolments
2009-2010	40	8
2010-2011	40	1
2011-2012	40	4
2012-2013	40	19

Provide analysis and an explanation report if there are significant differences between planned and actual numbers.

Generally, the number of students enrolled in the Agriculture College was observed to be very limited during the last few years. Therefore, it was also the same situation in the department in last few years (See above Table, please). The department's real capacity is to contain at least 100 students. The department policy was placed to overcome this reduction in enrolled students since academic year 2010-2011. The recent two academic years showed significant increase in the number (see Table above and Figure below). Despite the fact that there is an increased number of actual students enrolled with the expected and required number, Chi-Square test result indicates that (Chi-square= 25.7 with 3 degrees of freedom. P = 0.001), there was little significant difference between those who enrolled last year (2012-2013) (No=19) and expected number of students (N = 20 - Chi-square= 2.8 with 1 degrees of freedom. (P < 0.05). The current situation in AY 2012-2013 and year before aims to target more student enrolment in the future (see Figure below). Accordingly, the department is hoping to achieve its expectation on enrolling 40 students in coming years.



The department follows different strategies to increase the number of student enrolment. The most effectively used and perceived beneficial strategies are contacts with secondary schools and community. In addition, individual contact by the staff members and student contact with other potential students, use of various publications (promotional brochures, videos, posters, bulletin boards, newsletters, newspaper, radio, television, and school announcements), and the use of special recruitment events will hopefully improve student enrolment. Special services can be provided by the

department, which includes providing information, recruiting, orientating and supporting students through their first classes at the department. As a result of these new strategies, twenty three new students enrolled in the 2013-2014 academic year.

H. Evaluation in Relation to Quality Standards (Refer to *Standards for Quality Assurance and Accreditation of Higher Education Programs*)

NOTE FOR SECTION H

Response reports should be provided under each of the quality sub-standards set out in the ***Standards for Quality Assurance and Accreditation of Higher Education Programs***.

- To ensure a full understanding of the SSRP, explanatory reports are included in order to give background information or explanations of processes relevant to the standard or sub-standard concerned.

- The reports should summarize the process followed in investigating the performance in relation to each standard and sub-standard.

- A vital element of the SSRP is to provide specific data, show trends, support conclusions, and make appropriate comparisons with other programs selected to provide benchmarks for evaluation of performance. This data may include key performance indicators, other statistical information, figures derived from survey results, student results or anything that provides clear evidence about the matter being evaluated. A simple assertion that something is good, or needs improvement, is not sufficient without evidence to back it up.

- Integrated into this SSRP are KPI tables for measurement of quality. Each KPI table is placed at a specific point where quality assurance must be demonstrated. Programs may use NCAAA KPIs or develop their own KPIs to complete them.

NOTE: Programs are required to use 50% or more of the suggested NCAAA KPI's.

Standard 1. Mission and Objectives (Overall Rating 3.95)

The mission of the program must be consistent with that for the institution and apply that mission to the particular goals and requirements of the program concerned. It must clearly and appropriately define the program's principal purposes and priorities and be influential in guiding planning and action.

Explanatory note about development and use of the mission:

The Animal Production Department was established in 1965 as one of the 6 departments and the first Agriculture College in the Kingdom. The main program offered by the department had been concerned with animal production intensification and food processing industry until 1977. In 1977 a new program of Bachelor in Animal Production had been launched to meet the continuous development in the field of dairy and poultry production industry in the Kingdom. It is concerned with teaching sciences of animal and poultry breeding, physiology, nutrition, health and management of livestock sector. The department conducts applied research to improve the quality of animal products. Research also extends to utilize natural resources on a sustainable basis in KSA. Furthermore in 2003 G, the college name had been changed from College of Agriculture to College of Food and Agriculture Sciences. The current mission statement has been created and established to meet the rapid developments of animal production sector in the country.

Department Vision:

The department looks forward to:

- Become a high level scientific center in the field of animal production.
- Enhance the march of scientific and technical progress, to serve the community and contribute effectively to economic and social development of KSA through the development of animal wealth and to increase their economic return.

Department Mission:

Active participation in technical and scientific renaissance that started to be regular in the country and enriched -research, teaching and guidance- in the field of animal production and food security.

Department Objectives:

1. Prepare national staff who are scientifically qualified and practically trained in the various sectors of animal production to meet the current and futures needs of the country in that speciality.
2. Work in close cooperation with producers, investors and private sectors institutions to achieve the optimum specifications for the graduates of the departments so that they can address the changes and expect future challenges in the area of specialization.
3. Close the gap between academic education and vocational education in the field of animal production and promotion of academic performance, which in general, reflects positively on the society and the nation.
4. Promote and follow up the scientific and technical rapid developments in the field of animal production which would contribute to provide food security by improving productivity.

1.1 Appropriateness of the Mission:

The current mission statement has been created and established to meet the rapid developments of animal production sector in the country. The mission clearly addresses the functions of the program. It meets the needs of the agricultural community. The mission and vision are strongly aligned to those of the College and University. The mission, vision, and objectives are displayed around the department head office. They are also posted on the department website. This mission is widely accepted among staff and students as evident from the results of related questionnaires (Annex G.1.1).

1.2 Usefulness of the Mission Statement:

The mission has been usually used by decision makers in the department as an essential guide for decision formulation and implementation. The mission has also been used by staff and faculty members and students as a guide in their all day activities to fulfil the department main objectives, namely education, research, and community services. The goals and objectives of the program have been clearly derived from the mission and their fulfilment will lead to realization of the program mission.

1.3 Development and Review of the Mission:

The creation and establishment of current mission took place through many workshops in which all stakeholders including staff members, students and representative of local producers, private investors and Ministry of Agriculture have actively participated. The discussion in these

workshops has concentrated on the actual and potential needs of the animal production sector and the experience of some regional and international animal production institutions, in addition to the aligning with the college and university mission. Finally, the mission statement has been discussed and approved by the Department Council. Furthermore, the mission was reviewed and approved by Agriculture Institute of Canada (AIC). The mission will be periodically updated and reformulated every 4 years.

1.4 Use Made of the Mission:

The mission statement is used as a basis in the formulation of strategic plan to develop the ANPR Bachelor's Program. The program is aligned with the mission statement which aims to strengthen the program graduates skills and capabilities to participate in technical and scientific development in the field of animal production and food security, and to develop their communication and extension skills so that they can play vital roles in community services. The mission statement is being used by students, staff and faculty members in their all day activities including planning of the course specifications and students assessment. In addition, all titles of the proposed research and student's tasks and assignments always make use of the mission statement.

1.5 Relationship Between Mission, Goals, and Objectives:

The mission is reflected on the main goals of the program. Namely, enrichment of research and teaching has been reflected on the first goal targeting preparation of the scientifically qualified national staff. While, enriching the guidance in the field of animal production and food security has been reflected on the second goal targeting achievement of optimum specifications of the graduate to address the changes and expected future challenges. On the other hand, active participations in technicians and scientific renaissance in the field of animal production and food security has been reflected on goals 3 and 4, targeting promotion of academic performance and follow up of the scientific and rapid developments in the field of animal production and food security.

The mission objectives are in parallel with the goals. Namely, the objectives for the first goal concerning with preparation of scientifically qualified and well trained national staff in the field of animal production have included regular revision of academic curriculum, increasing percentage of staff member with Ph.D., offering professional development courses, and improving satisfaction of graduate's employers.

The objectives for the second goal concerning with close cooperation with producers and private

investors have included offering community service programs and enhancing consultation to producers and private investors.

The objective for the third goal concerning with bridging the gap between academic and vocational education has included the updating and reform of the program curriculum to meet the requirements of bridging the gap of vocational academic graduates.

The objectives for the fourth goal concerning with promotion and follow up of the scientific and technical rapid developments have included encouraging attendance and participation in national and international conferences and workshops invitation of outstanding national and international scientist and collaboration with excellence animal production institutions in addition to excellence training of technicians and researcher.

The following actions were taken for preparation of report on this standard:

- Questionnaires were developed and administered to investigate knowledge and awareness of staff members, faculty members and students on the mission and objectives of the department and their use of the mission in their activities (Annex G.1.0).
- The faculty members along with the committee for Quality and Development have participated in evaluating the survey results regarding the vision, mission and objectives.
- The program vision, mission, goals and objectives have been thoroughly reviewed by Quality and Development committee and compared to that of the College and University.
- Report on subsections of the standard has been formulated.

Choose **ONE OR MORE** KPIs that best supports that the program meets this standard. Each KPI should use a separate KPI table. Insert the KPI in the table below, add the actual KPI benchmark with the other benchmarks, and provide an analytical interpretation that describes the outcome (most benchmarks are numerical and others may be descriptions that verify quality using a rubric).

Program KPI: How well the program mission is known for the stakeholders	
Target Benchmark	4
Actual Benchmark	4.17
Internal Benchmark	NA
External Benchmark	NA
New Target Benchmark	4.5

Analysis: The score concerning the popularity of the mission indicates that the mission is well known among the program stakeholder. This is because the mission statement is posted and is highly visible in the department and publicized in the department web site.

Refer to evidence obtained and *provide a report* based on that evidence; including a list of particular strengths, recommendations for improvement, and priorities for action.

The program mission and objectives are well known for the program stakeholders (score 4.17), and has been usually used as an essential guide for all day activities (score 4.17). The program mission is aligned with the university mission and is reflected in the goals and objectives of the program. Moreover, the mission statement is used as a basis for the formulation of the strategic plan of the program (score 4.09). Hence, the performance of the program concerning its mission and objectives meets the requirements of standard 1.

Strengths:

i. The vision, mission, and objectives are clear and appropriate.
ii. The mission covers the main functions of the department.
iii. The mission is aligned with the college and university mission.
iv. The mission is well known among staff, students and employees.

Recommendations for improvement:

1. A system will be developed for benchmarking and analysis of the mission performance (Proposed system is attached).

2. Encouragement of the staff and students to express the mission in their all day academic activities.

3. The decision makers should keep using the mission statement in the decision making and planning processes.

Priorities for action:

1- The mission will be reviewed every 4 years in consultation with students and other stakeholders.
2- The program mission should be publicized locally and regionally.

Annexes

Annex G.1.0 A questionnaire form to measure awareness of staff members on the mission and objectives of the program.
Annex G.1.1 Results of surveys on the awareness of staff members on the mission and objectives of the program.
Annex 1.2 Proposed systems for benchmarking and analysis of the mission performance.

Standard 2. Program Administration (Overall Rating 3.88)

Program administration must provide effective leadership and reflect an appropriate balance between accountability to senior management and the governing board of the institution within which the program is offered, and flexibility to meet the specific requirements of the program concerned. Planning processes must involve stakeholders (e.g. students, professional bodies, industry representatives, teaching staff) in establishing goals and objectives and reviewing and responding to results achieved. If a program is offered in sections for male and female students resources for the program must be comparable in both sections, there must be effective communication between them, and full involvement in planning and decision making processes. The quality of delivery of courses and the program as a whole must be regularly monitored with adjustments made promptly in response to this feedback and to developments in the external environment affecting the program.

2.1 Leadership:

The Skills Development Deanship at the University organizes several Leadership Development Programs. The Head of the Department and other academic members especially the new staff members are requested to attend these programs.

The nomination of the department head is carried out by a committee appointed by the College Dean (Annex 2.1). The committee organizes the election among the nominees of the faculty members and recommends the names of high score candidates to the Dean. The Dean nominates the department head who is then approved by the University Rector. The responsibilities of the department head are clear and listed in a detailed guidebook.

2.2 Planning Processes:

A special strategic plan committee has been appointed by the head department with the main task of developing a comprehensive strategic plan including vision and mission of the program (Annex 2.2). The strategic plan development committee has formulated the strategic plan based on wide consultation and participation of all faculty members during the brain storming workshops. SWOT analyses, in addition to the arrangement of several meetings and round discussion and brain storming with the program students, teaching staff and employees were conducted. The developed strategic plan and mission were discussed in details in the Department Council and finally has been approved by the Department Council. The plan and mission were made available for all stakeholders through the department web page. The benchmarks and key indicators of mission performance are those of NCAAA KPIs and the program own KPIs adopted from the Agricultural Institute of Canada (AIC).

2.3 Relationship Between Sections for Male and Female Students:

NA

2.4 Integrity:

The integrity of the department and its program is maintained by many ways including provision of the course syllabus that outlines the course expectations and grading procedures to the students in addition to the assurance that faculty members are aware of the department academic polices. Moreover, there is a permanent Student Rights Committee at the College level, in which the department is represented by a student. In addition, regular meetings are organized with program students who express their problems and ideas frankly and discuss the possible solutions. Similar regular meetings are also organized by the head department with all teaching staff and employees to discuss ideas, concerns and/or problems.

2.5 Internal Policies and Regulations

Policies and regulation of the program administration is similar for the different university programs and is formulated at the University (KSU) level. Procedures of KSU outline rules and regulations controlling all matters of conduct. These policies and regulations are available on the University web site. They fall into the following categories (1) Student Affairs (2) Financial Affairs (3) Faculty and (4) Research, postgraduate studies legislations and regulations (Annex 2.5.1). The policies and regulations are regularly updated and reviewed to cope with the ambition and inspiration of the University. Participation of the staff members is encouraged in reviewing and updating the University regulations and policies.

Program KPI: Participation of staff members in the planning processes	
Target Benchmark	3.5
Actual Benchmark	3.83
Internal Benchmark	NA
External Benchmark	NA
New Target Benchmark	4.0

Analysis: It is evident that participation of the staff members in the planning process of the program has exceeded the target benchmark. This indicates considerable participation of the staff members in the planning processes; however this should be further improved by some

sort of incentives (e.g. credit hour load) for the staff members participating in program administration issues.

Description of process for investigation and preparation of report on this standard:

The Department SSR Committee has carried out the following actions:

1. Examining the records and reports for related events and committees, including Department Annual Reports 2012-2013 and job descriptions.
2. Reviewing strategic plans of the Department, College and University.
3. Observing samples of documents from department (committee minutes, decisions, mission, goals and plans, etc.) and data available at the Department website.
4. Referring to the previous department annual reports on the self-evaluation for comparison and awareness for continuous improvement.
5. Make use of the report of the external reviewers (AIC), and action plan in response to their recommendations.

Overall Evaluation of Quality of Mission, Goals and Objectives: Refer to evidence obtained and ***provide a report*** based on that evidence; including a list of particular strengths, recommendations for improvement, and priorities for action.

The nomination procedure and responsibilities of the head department are clear and listed in a detailed guide book. The planning process in the department takes place through especial committees appointed by the head department and the outcomes from the committees is subjected to long discussion among the stakeholders, and finally will be discussed and approved by the department council (score 3.83). The integrity of the program is maintained through regular meetings of the head department with program students and all teaching staff, in addition to official e-mails and letters (score 3.74). Polices and regulation of the program is formulated at the university level and are available to all stakeholders on the university web site (score 4.04). Stakeholders are encouraged to participate in reviewing and updating of university regulations and policies. Hence, it could be stated that the performance of the program meets the requirements of Standard 2.

Strengths:

1. The integrity of the department and its program is maintained by adopting the laws and regulations of the KSU, the polices of Higher Education Ministry, Laws of Civil Service, Financial Bylaws, Student Academic Regulations.

2. The regular meetings organized by head department for staff, employees and students have a positive reflect on teaching and research.
3. All University policies, rules and regulations concerning program administration are easily accessible on the KSU website.
4. Several leadership, administrative and academic skills development programs are regularly offered for the Department Heads, faculty members, new staff and other academic administrators by KSU Skills Development Deanship

Recommendations for improvement:

1. Relevant external stakeholders including the Ministry of Agriculture officials, the Saudi Commission for Wildlife and Animal Production private sectors and associations should be consulted concerning the strategic plan and curriculum updating of the program.
2. Activation of the system dealing with underperforming staff.
3. Provision of more administrative authorities for the head department.

Priorities for action:

1. Development of a plan for administrative management and financial responsibilities giving more room for the head department.
2. Creation of an efficient administrative chart.

Standard 3. Management of Program Quality Assurance (Overall Rating 3.72)

Teaching and other staff involved in the program must be committed to improving both their own performance and the quality of the program as a whole. Regular evaluations of quality must be undertaken within each course based on valid evidence and appropriate benchmarks, and plans for improvement made and implemented. Central importance must be attached to student learning outcomes with each course contributing to the achievement of overall program objectives.

Provide an explanatory report that describes and analyzes the quality assurance processes used in the program, particularly relating to indicators and benchmarks of performance and verification of standards for each of the following sub-standards.

- **Commitment to Quality Improvement in the Program:**

Faculty members are involved in the quality improvement processes through their participation in the SSR subcommittees and through the discussion of the quality improvement issues in meetings of the department council, in addition to the organization of workshops for the faculty members by inviting quality assurance experts (Annex 3.1). Weaknesses in attracting undergraduate students to join the program, the low completion rate of the program within the minimum specified period for the completion of the program and the proportion of courses in which student evaluations were conducted during the year are acknowledged by the department for continuous improvement. The implementation of the KSU – QMS will ensure quality improvement by continuous monitoring and evaluation of the program using KSU-QMS survey questionnaires and KPIs, in addition to the analytical interpretation of the learning outcomes and the subsequent formulation of recommendations and action plans.

- **Scope of Quality Assurance Processes:**

Staff members of the departments, in addition to employers, graduates and alumni participate in the program evaluation to take advantage of their feedback. Learning outcomes for students are considered a priority in the direct and indirect evaluation processes. Most of KPIs are related to learning outcomes and most learning outcomes demonstrate that student learning performance is successful (*see table below*). Moreover, the field and cooperative trainings in the program are actively encouraging the creativity and innovation of the graduated students.

List of Program KPIs Approved by the Institution	**KPI Target Benchmark**	**KPI Actual Benchmark 2012-2013**	**KPI Internal Benchmarks**	**KPI Actual Benchmark 2011-2012**	**KPI Analysis**
(KPI 1) Students overall evaluation on the quality of their learning experiences at the institution. (Average rating of the overall quality of their program on a five point scale in an annual survey final year	**3.5**	**3.65**	**3.5**	**3.52**	The attained average rating has achieved the target benchmark, and better than the internal indicating that the program students are

students)					satisfied on the quality of the program.
(KPI 6) Students overall rating on the quality of their courses. (Average rating of students on a five point scale on overall evaluation of courses)	**3.5**	**3.65**	**3.80**	**3.88**	The attained average rating has achieved the target benchmark, indicating that the program students are satisfied on the quality of the program courses.
(KPI 10) Course completion rates for full time students	**90%**	**92%**	**NA**	**NA**	The target benchmark is met.
(KPI 14) Proportion of graduates from undergraduate programs who within six months of graduation are: a. Employed b. Enrolled in further study c. Not seeking employment or further study	**a. 80%** **b. 20%** **c. 0%**	**a. 80%** **b. 6.7%** **c. 13.3%**	**a. 55%** **b. 16%** **c. 29%**	**a. 80%** **b. 20%** **c. 0.0%**	The target ratio of employment was achieved.
(Program KPI 9) The overall rating of the employers on the performance	**3.5**	**NA**	**3.0**	**3.49**	Successful integrated field training course enhanced

quality of the program graduates.					the satisfaction of the employers on the program graduates.

The program courses learning outcomes were designed by the relevant faculties to fulfil the relevant learning domains and learning outcomes of the program (see table below).

	NQF Learning Domains and Learning Outcomes	Courses	Assessment Methods
1.0	**Knowledge**		
1.1	To define the fundamentals of each aspect in animal production (such as nutrition, diseases, physiology etc.).	ANPR106, ANPR 220 ANPR 226, ANPR 256 ANPR 258, ANPR 260 ANPR 318, ANPR 320 ANPR 322, ANPR 326 ANPR 334, ANPR 336 ANPR 338, ANPR 346 ANPR 452, ANPR 456 ANPR 458, ANPR 460 ANPR 462, ANPR 466	1. Direct assessment through; - Written exams, rubric assessment, home works, quizzes, assignments, reports, and final exams), 2. Indirect assessment methods - Group discussing and personal reflection,
1.2	Recognize ethical and professional responsibilities of the carrier	ANPR 106, ANPR 318 ANPR 322, ANPR 452, ANPR 466	
1.3	Outline the role of the animal production and the impact of this carrier on Saudi economy and food security.	ANPR 106, ANPR 226, ANPR 256, ANPR 318, ANPR 322, ANPR 326 ANPR 334, ANPR 346, ANPR 452, ANPR 462, ANPR 466	
1.4	List the basics and the applications of animal science and production in farm animals.	ANPR 106, ANPR 220, ANPR 226, ANPR 254, ANPR 258, ANPR 318, ANPR 322, ANPR 326, ANPR 336, ANPR 346, ANPR 452, ANPR 466	
2.0	**Cognitive Skills**		
2.1	Explain statistical and descriptive methods of	ANPR 226, ANPR 258, ANPR 318, ANPR 338,	

	analyzing animal production process.	ANPR 346, ANPR 452, ANPR 466	
2.2	Evaluate real life problems that face the industry and find innovative solutions based on applicability	ANPR 226, ANPR 258, ANPR 260, ANPR 318, ANPR 322, ANPR 326, ANPR 334, ANPR 346, ANPR 452, ANPR 460, ANPR 462, ANPR 466	- Asking verbal questions - Group discussion, - Rubric Assessment - Attendance and group discussion
2.3	Predict alternative solutions to problems that face animal production process.	ANPR 220, ANPR 256, ANPR 320, ANPR 322, ANPR 326, ANPR 336, ANPR 346, ANPR 456, ANPR 458, ANPR 462, ANPR 466	
2.4	Summarize available resources and reading materials	ANPR 254, ANPR 318, ANPR 322, ANPR 326, ANPR 334, ANPR 336, ANPR 452, ANPR 458, ANPR 466	- Assignments - Reports
3.0	**Interpersonal Skills & Responsibility**		
3.1	Demonstrate ability to work as a member of a group and team	ANPR 226, ANPR 258, ANPR 318, ANPR 322, ANPR 334, ANPR 336, ANPR 338, ANPR 452, ANPR 460, ANPR 462, ANPR 466	Evaluation forms filled by the lecturer in the course and trainers during training field about the skills and responsibility of the students during the coop period.

3.2	Analyze student leadership ability judge ability to perform self-learning.	ANPR 256, ANPR 322, ANPR 326, ANPR 346, ANPR 462, ANPR 466	Faculty evaluation for students in seminars, classes and projects.
3.3	Show awareness about ethical and professional issues face student while learning and working.	ANPR 338, ANPR 346, ANPR 466	Presenting seminars lectures and deliver classes and projects.
4.0	**Communication, Information Technology, Numerical**		
4.1	Demonstrate good background in statistics and experimental methodology to conduct experiments and interpret the results, draw conclusion and write reports.	ANPR 226, ANPR 252, ANPR 318, ANPR 320, ANPR 322, ANPR 336, ANPR 338, ANPR 452, ANPR 456, ANPR 462, ANPR 466	Oral skills will be assessed in oral presentations. Oral testing and examination Students IT skills will be assessed in computer courses and other relevant courses directly through home works and exams (quizzes, majors, reports, and final exams).
4.2	Appraise the ability to gather, analyze, interpret data, write and discuss reports.	ANPR 256, ANPR 258, ANPR 318, ANPR 326, ANPR 336, ANPR452, ANPR 460, ANPR 462, ANPR 466	- Assignments
5.0	**Psychomotor**		
5.1	Develop hand movements as needed in performing laboratory and field work (titration, pipetting, weighing and others).	ANPR 226, ANPR 322, ANPR 336	In the laboratory exams students are assessed on their ability to perform tasks that require psychomotor skills.

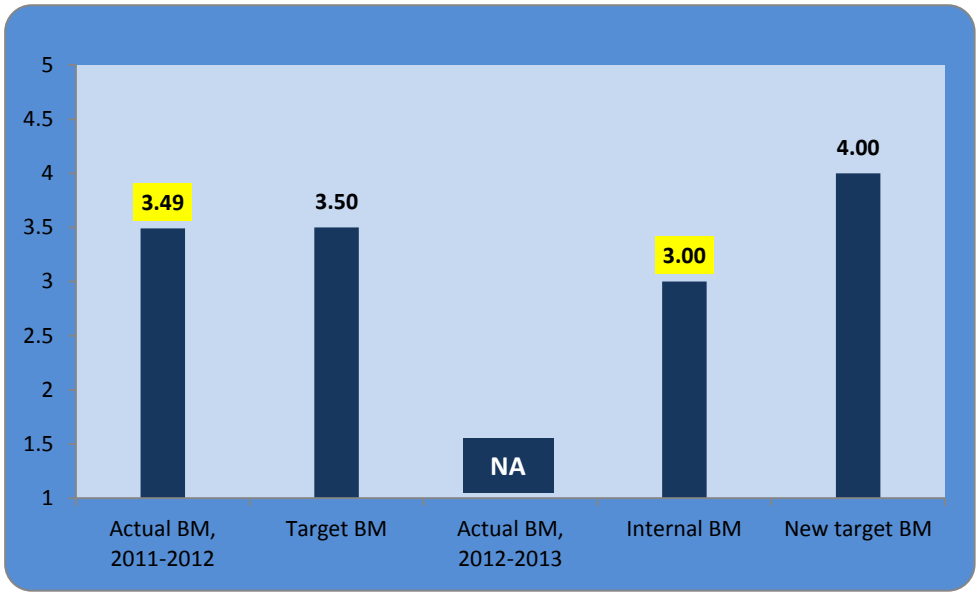
- **Administration of Quality Assurance Processes:**

The Department Committee for Quality and Development is chaired by the Department Head. The committee has the responsibility of managing the quality aspects of the program. Annual reports are considered for the developments of actions. ANPR QA team has selected 20 KPIs for the evaluation of the program learning outcomes, more than 50% of which were adopted from NCAAA KPIs, and the rest are program's own KPIs. The KPIs are evaluated using five point scale questionnaires (Annex 3.3) used in an annual survey of all program's stakeholders (students, alumni, staff members, faculty members, trainers, employers) to evaluate the performance of the program in achieving its mission concerning teaching, research and community services.

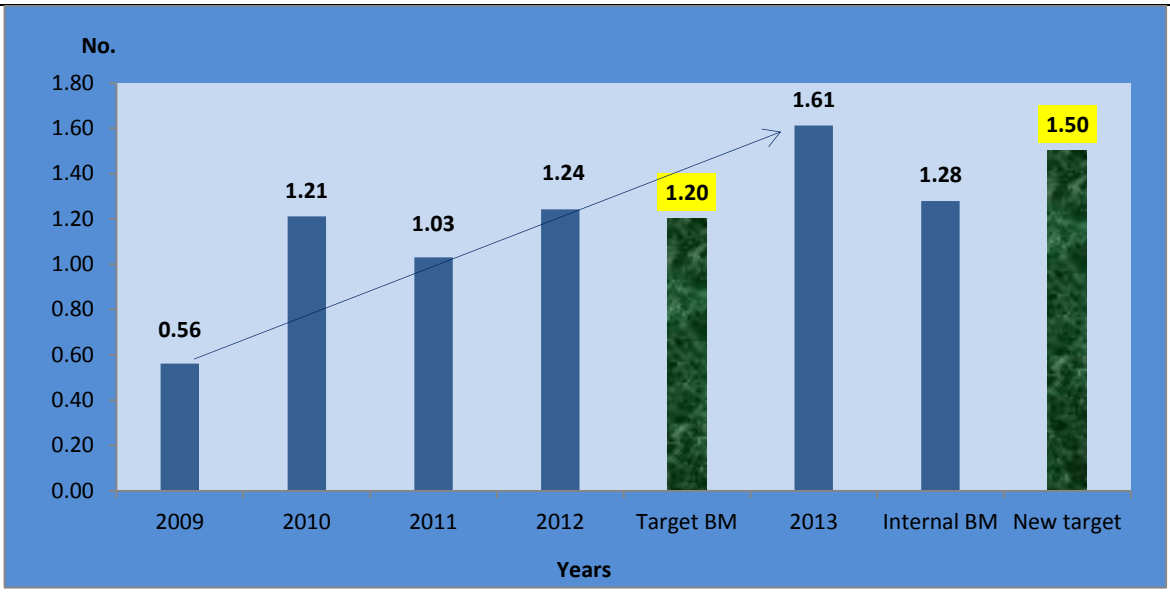
Moreover, ANPR QA team has planned to select and directly evaluate 3 program learning outcomes each academic year, so as to complete the direct evaluation of the entire program learning outcomes (14 learning outcomes scattered in 5 learning domains) in a period of five academic years.

- **Use of Performance Indicators and Benchmarks:**

KPIs and benchmarks of the program have been identified and approved by the university (*see below examples of KPIs with benchmarking and analysis*). In addition, the program was evaluated and certified by the Agricultural Institute of Canada (AIC) in 2010 (Annex 3.4).



This figure shows the overall rating of employers on the performance of the program graduates (Program KPI 9) on a five point scale, in the last two academic years (2011-2012 and 2012-2013). This indicates that the program graduates performance is satisfying the employer's expectation, and the performance target bench mark is achieved. This could be due to the successful integrated field training course.



This figure shows the number of refereed publications in last five years (2009 - 2013) per full time equivalent teaching staff members (KPI 28), which indicates that department publications has exceeded the target and is better than that of the internal benchmark. This could be due to higher qualification of the teaching staff members, in addition to the publication incentives adopted by KSU.

- **Use of direct evaluation of the program learning outcomes:**

ANPR QA team has selected and directly evaluated 3 program learning outcomes belonging to 2 learning domains, namely Knowledge and Communication, Information Technology and Numerical.

1) Direct assessment of knowledge learning outcomes:

Goal:
Prepare national staff scientifically qualified and practically trained in the various branches of animal production (Animal Breeding, physiology, nutrition, health and biotechnology) to meet the current and futures needs of the country in that specialty.

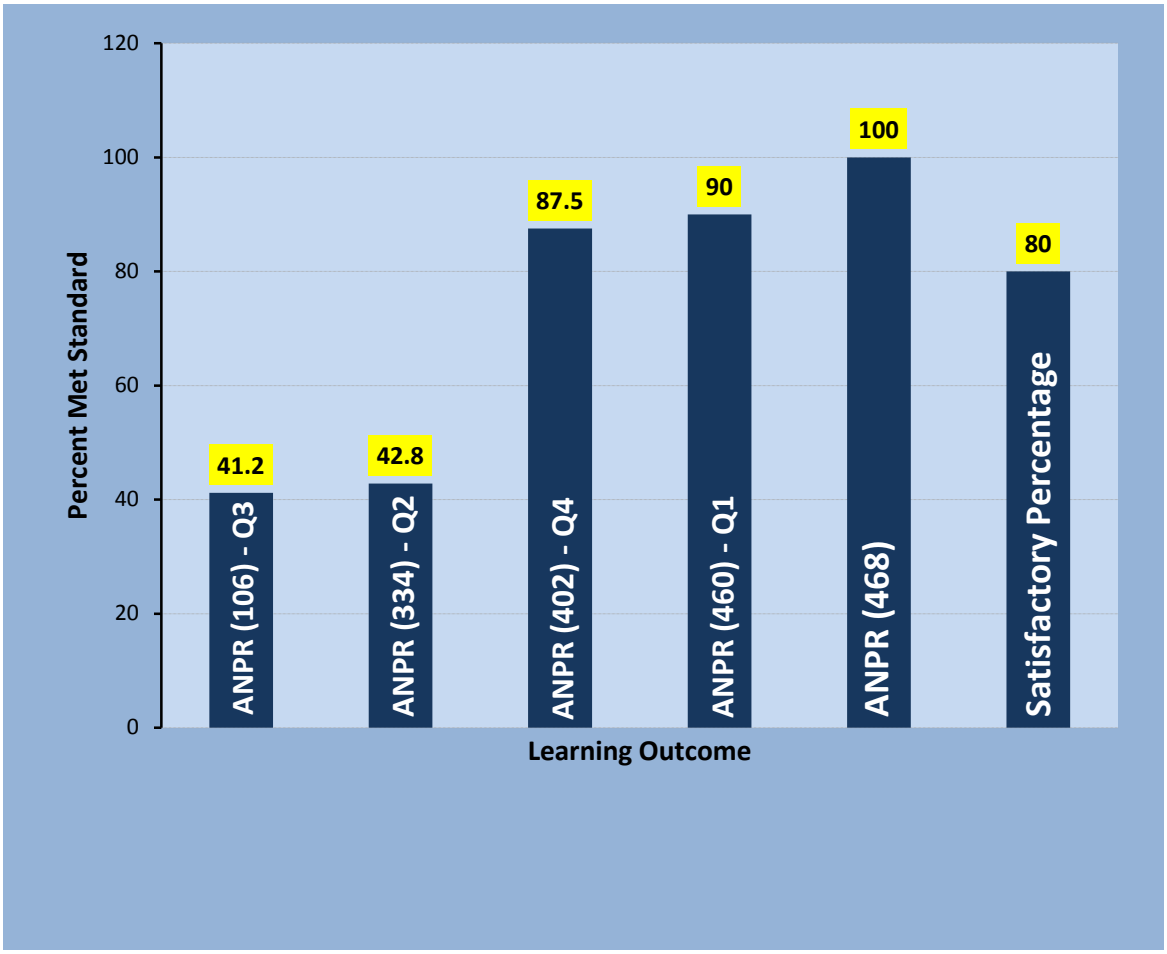
Learning outcomes:

A) 1.1 To define the fundamentals of each aspect in animal production (such as nutrition, diseases, physiology etc.).

Assessment tools:
Direct assessment through an embedded exams questions and reports (ANPR 106- Q3; ANPR 334-Q2; ANPR 402- Q1; ANPR 460- Q1; ANPR 468- Report).

Satisfactory performance:
Satisfactory performance is 80% of enrolled students achieved >70% in specific questions, embedded in examinations, or reports.

Outcomes analysis: (see figure below).



Performance follow up:
Follow up is required by the head of the department and the Departmental accreditation Steering Committee to improve the learning outcomes of the courses that did not reach the satisfactory performance.

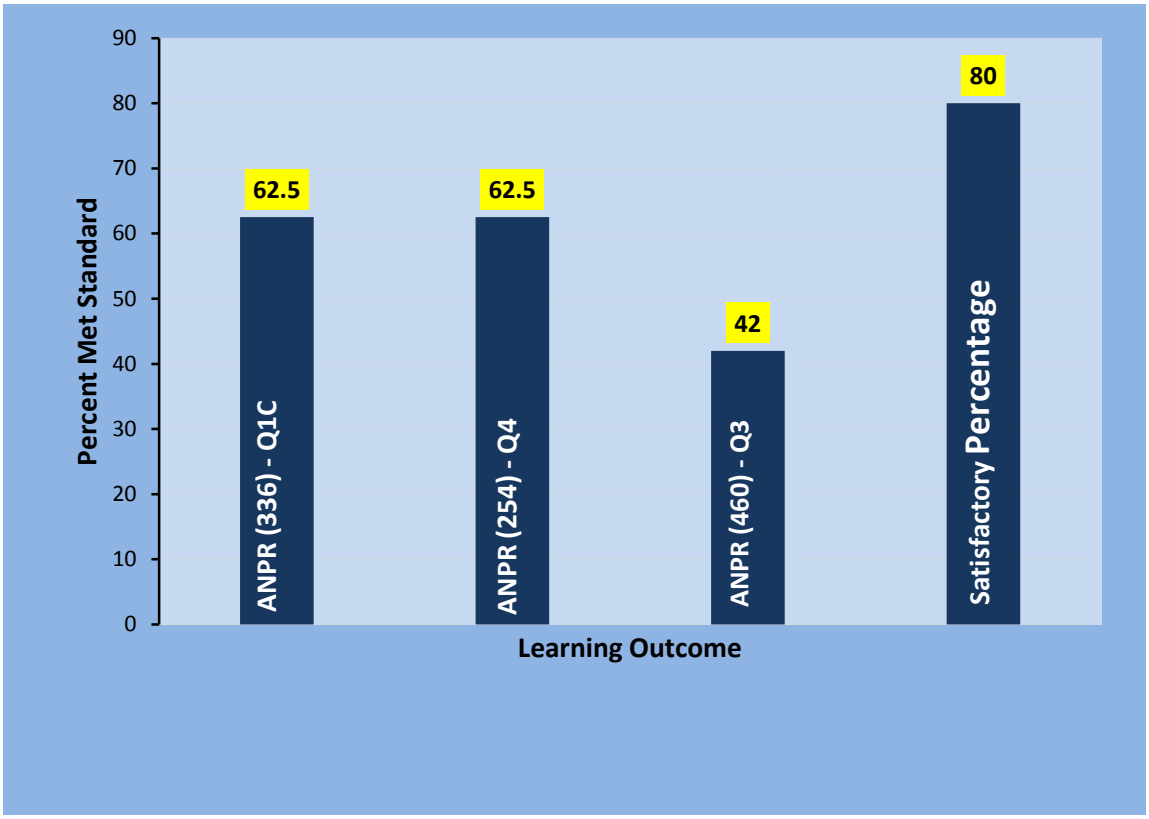
B) 1.4 List the basics and the applications of animal science and production in farm animals.

Assessment tools:
Direct assessment through exams embedded evaluation questions testing student's basic and application knowledge (ANPR 336- Q1c; ANPR 254-Q4; ANPR 460- Q3).

Satisfactory performance:
Satisfactory performance is 80% of enrolled students achieved >70% in specific questions,

embedded in examinations.

Outcomes analysis: (see figure below).



Performance follow up:
Follow up is required by the head of the department and the Departmental accreditation Steering Committee to improve the learning outcomes of the courses that did not reach the satisfactory performance.

2) Direct assessment of Communication, Information Technology and Numerical learning outcomes:

Goal:
Prepare national staff scientifically qualified and practically trained in the various branches of animal production (Animal Breeding, physiology, nutrition, health and biotechnology) to meet the current and futures needs of the country in that specialty.

Learning outcomes:
A) 4.2 Appraise the ability to gather, analyze, interpret data, write and discuss report.

Assessment tools:
Direct assessment through embedded evaluation questions into Rubric assessment and report

for ANPR 468 (Grading student sheet for field Experiences, Essay and Oral presentation) and ANPR 401 (Report scoring results).

Satisfactory performance:
Satisfactory performance is 75% of enrolled students achieved >76% in specific questions, embedded in examinations, or reports.

Outcomes analysis: (see figure below).

Performance follow up:
Follow up is required by the head of the department and the Departmental accreditation Steering Committee to maintain and ensure sustainability and improvement of the learning outcomes of those two courses in order to keep their LO at the resulted satisfactory performance level.

- **Independent Verification of Evaluations:**

- The University has taken positive steps in the independent verification of the standards. In this context, the program was reviewed and verified by the **Agricultural Institute of Canada (AIC)**. In 2008, AIC was appointed as independent evaluator for the program. The Canadian expertise in the area of agriculture visited the college and the animal production department and went through all documents requested, visited all facilities including laboratories, farms and others. They discussed many important issues important for high quality educational outputs with the College Dean, Vice

Dean for Development and Quality, Head of Quality Unit, Head of Animal Production Department, Departmental Assessment and Academic Accreditation Committee and selected staff members. In 2010, the program was certified (see Annex I. 1.). The main serious concern of AIC reviewers was the limited number of undergraduate students enrolled in the most important agriculture area (Animal Production) and the department will have to engage in an active recruitment program to attain sufficient numbers of students.

Regarding the educational capabilities and quality, the department has about 31 teaching staff member with different ranks and most of them graduated from a respective universities in North America and Europe. They are active publishers and have a good knowledge of their discipline areas. On the other hand, the department has access to a number of well-equipped teaching laboratories supplemented by an even larger number of research laboratories. Field research facilities including large and small experimental animals' pens, poultry housing, feed mill, metabolic crates for small and large ruminants, controlled climatic chambers, facilities for artificial insemination and pregnancy diagnosis and others are available in the educational farm in Al-Ammareiah district. Access to commercial livestock farms and animal feed manufacturing companies are established for students' training and teaching and research purposes.

- Recently (in 2013), a consultant from Prince Sultan University was invited to conduct an independent review of the ANPR program and to provide an independent opinion in the Self – Evaluation Scales Report (SSRP) for NCAAA accreditation (Annex I.2.). The consultant is the current director of the quality assurance centre in the Prince Sultan University who is also responsible for obtaining their full institutional accreditation for a period of 7 years from 2010-2017. Through the Office of the Vice Dean for Development and Quality of the College of Food and Agriculture Sciences, arrangements have been made to formalize the consulting activity. Logistical requirements were provided to the consultant as requested. The Director of Quality Assurance Unit of the college arranged for the individual and group interview session, site visits to facilities and offices, and review of accreditation documents. In order to obtain sufficient information about the program, around 35 hours of visit to the department have been conducted. Interview sessions with the program managers were held and separate group interviews were also conducted involving a representative number of teaching staff, personnel and students. In addition, the consultant also conducted the following activities:
- Visit to the laboratories of the department.
- Visit to the University Library.

- Visit to other learning facilities of the department.
- Review of quality assurance documents.
- Visit to the we-site of the KSU and the CFAS, and
- Review of existing manuals, brochures and handbooks.

Description of process for investigation and preparation of report on this standard:

Quality management and continuous improvements have been adopted by King Saud University. In response to that, the Department Head has appointed a Committee for Quality and Accreditation (Annex B.1) to develop a comprehensive system of quality assurance and improvement. The Committee has reviewed the program and courses specifications and reports to maintain the continuous quality management. In addition, students' course evaluation surveys (Annex 3.0) were examined. All statistical data relating to the general and specific KPIs were identified by specified staff members in the department. Furthermore, 3 program learning outcomes belonging to 2 learning domains (Knowledge; Communication, Information Technology, Numerical) were directly evaluated using questions embedded in the written exams or reports of the relevant program courses.

Choose **ONE OR MORE** KPIs that best supports that the program meets this standard. Each KPI should use a separate KPI table. Insert the KPI in the table below, add the actual KPI benchmark with the other benchmarks, and provide an analytical interpretation that describes the outcome (most benchmarks are numerical and others may be descriptions that verify quality using a rubric).

KPI (1): Students overall evaluation on the quality of their learning experiences at the institution	
Target Benchmark	3.5
Actual Benchmark	3.65
Internal Benchmark	3.5
External Benchmark	NA
New Target Benchmark	4.0
Analysis: The attained average rating has achieved the target benchmark, and better than the internal benchmark indicating that the program students are satisfied from the quality of the program. This could be attributed to the higher qualification of the faculty members and the	

appropriate academic guidance.

(Program KPI): Staff members participation in the self-evaluation and improvement of the program	
Target Benchmark	4.5
Actual Benchmark	4.52
Internal Benchmark	NA
External Benchmark	NA
New Target Benchmark	4.5

Analysis: It is evident that participation of the staff members in self- evaluation and improvement of the program has been achieved. This indicates an active participation of staff members in self-evaluation and improvement of the program. This is due to the inclusion of their participation in the improvement of the program in their annual performance evaluation report.

Overall Evaluation of Quality of Mission, Goals and Objectives. Refer to evidence obtained and ***provide a report*** based on that evidence; including a list of particular strengths, recommendations for improvement, and priorities for action.

The department organizes workshops on quality improvement for the teaching staff by inviting quality assurance experts. The stakeholders of the program participate in the program evaluation using annual 5 points scales questionnaires (score 4.52). Annual reports are considered for the development and improving actions. Twenty (20) KPIs have been selected for the direct and indirect evaluation of the program with priority being given to learning outcomes and KPIs. The department has identified certain KPIs and benchmarks for the program evaluation, which has been approved by the university. In addition, 3 program learning outcomes belonging to 2 learning domains were directly evaluated using exams and reports embedded evaluation questions. The program has been reviewed and verified by independent reviewing agency (AIC), in addition to some courses that are subjected to double checking. Hence, it is clear that the program performance meets the requirements for standard 3.

Strengths:

1. The establishment and support for the Quality and Development Committee by the

College within the quality unit.

2. Strategic and quality plans were developed together with indicators and benchmarks.
3. Three program learning outcomes belonging to 2 learning domains were directly evaluated.
4. Courses Evaluation Summary, in addition to courses and program reports are regularly submitted to the Department Head.
5. Program, courses, staff evaluation surveys are continuously conducted by students and graduates.
6. Department members' are periodically evaluated by the Department Head (Annex 3.5.1)
7. The positive feedback of field and cooperative training in the program (Annex 3.5.2).

Recommendations for improvement:

1. Direct evaluation of 3 program learning outcomes each academic year to complete the direct evaluation of the entire program leaning outcomes within 5 academic years.
2. Attracting more students to increase the number of students enrolled in the program.
3. Increase the current periodic meeting of faculty members with students, alumni and employees.
4. Regional and international benchmarks should be included to improve the quality of the program.

Priorities for action:

- Developing a systematic database for reviewing the indicators and benchmarks.
- Increasing the number of program courses used in the direct evaluation of the program learning outcomes, in addition to completing the direct evaluation of the entire program learning outcomes within 5 academic years.
- Involving more members of the faculty staff, employers and graduates in self-evaluations.
- Encouraging the cooperation with the governmental and private sectors.
- Including processes for verification of standards such as double marking of examinations, and invitation of external examiners or reviewers for some ANPR courses.

Standard 4. Learning and Teaching. (Overall Rating 4.12)

Student learning outcomes must be clearly specified, consistent with the National Qualifications Framework and requirements for employment or professional practice. Standards of learning must be assessed and verified through appropriate processes and benchmarked against demanding and relevant external reference points. Teaching staff must be appropriately qualified and experienced for their particular teaching responsibilities, use teaching strategies suitable for different kinds of learning outcomes and participate in activities to improve their teaching effectiveness. Teaching quality and the effectiveness of programs must be evaluated through student assessments and graduate and employer surveys with evidence from these sources used as a basis for plans for improvement.

Provide an explanatory report about the organizational framework and process arrangements followed to demonstrate that the sub-standards are met (For example, use information provided in reports of survey summaries, KPIs and benchmarking analysis, indirect and direct learning outcome assessments or in annual program reports).

The ANPR program at KSU is subjected for evaluation at university level as well as national level. The evaluation process includes different approaches based on Student evaluation, program evaluation (PES) and employer surveys, graduate students feedback and employment rate. For example, PES and employers feedback are providing evaluation data on student field training during training session and afterwards when they hired. In general, many key indicators are usually considered to meet the standards for organizational framework and process arrangements. The KPI number 4 showed that students' overall rating on the quality of their course is 3.68 which higher than the program target benchmark. It is, however, less than the new targeted bench mark by around 0.3. On the other hand, KPI number 10 states that 80% of students were employed, achieving both targeted and actual bench mark. However, plan is need for encouraging 13% of students who were not successful to be hired in finding opportunities of jobs or pursing higher education. This approach might be recommended in order to increase the proportion of students who enroll in higher study from 7% to 20% which is the new target benchmark.

Provide a description of the quality assurance response processes used to verify the organizational framework and processes for learning and teaching are valid (For example if steps were taken to check the standards of student achievement against appropriate external benchmarks, what was done, and what conclusions were reached?).

The organizational framework and processes for learning and teaching are verified for quality assurance throughout different process:

- Group discussion of ANPR members on a weekly scheduled meeting.
- Student, program and employer evaluation surveys.

- Enrollment data, course specification and report data.
- Feedback of Quality assurance unit.
- Policies and regulations at KSU.
- Program specification outcomes.

One of the major key indicators of processes for learning and teaching is the employment rate within six-month duration of graduation. Accordingly, 80% of graduates are hired by different employment sector. KPI number 10 is clearly indicates this information, in addition to ~7% of graduates who are enrolled into further studies.

Another indicator is that the previous graduates on ANPR program have achieved highly ranked position in professional sectors. For example, there is one graduate who is a member of Al-Shoura Council; Dr Mansour Al-Kreedis; more than two are Chief Executive Officer (CEO) in professional animal production companies. Besides, there are more than 15 graduates who earned Ph.D. degree and are working in different academic institutions and Universities. Out of them, 12 are working in this department.

Subsection 4.1 Student Learning Outcomes (Overall Rating 4.0)

Describe the processes used for ensuring the appropriateness and adequacy of intended student learning outcomes from the program. Include action taken to ensure consistency of the intended student learning outcomes with professional or occupational employment requirements as indicated by expert advice or requirements of professional bodies or relevant accrediting agencies with the National Qualifications Framework. (Note that evidence on the standards of student achievement of these intended learning outcomes should be considered in sub-standard 4.4 below)

The processes used for ensuring the appropriateness and adequacy of intended student learning outcomes from the program are based on the course description which includes the objectives, description, format, and assessment and grading. Second, all students will have demonstrated their learning outcomes at the end of each course through the following:

- Acquire knowledge and information on current scientific issues regarding the intended course.
- Classify the comprehension strength of scientific inference regarding threats to environment and solutions
- Application of different skills in verbal and written communication in the context of scientific debate
- Analyse both sides of scientific and applicable issues of livestock and farm animal production and as a consequence provide scientific- based solutions.

- Synthesize, re-arrange and summarize data gathered in scientific research domains such as library and literature resources in a logical and statistical manner.
- Evaluation of any emergent issues in the field of Animal Production sector and Industry.

Furthermore, the processes used for ensuring the appropriateness and adequacy of learning outcomes were extended to cover ability of undergraduate students to have participated in scientific debates and analysis scientific arguments, and to graduate students who have demonstrated their ability to introduce, lead, and summarize scientific debates. Finally, employment is mainly subjected to process of use for ensuring the appropriateness and adequacy of learning outcomes. Employment is considered as a benchmark in learning outcomes adequacy because it is mainly based on student's grades in both private and public sectors. The employers' survey stated that employers hire graduates of ANPR at KSU because they have adequate learning outcome that matches the criteria of employment needs.
On the other hand, the evidences about the appropriateness and adequacy of the intended learning outcomes for students in ANPR program are:

Student Grades

Student grades provide an excellent and unbiased measure of satisfaction of SLOs. Various components of course grades should be taken into consideration in this process, including grades of homework assignments, class projects, midterm exams, quizzes, specific questions within the examination and general grades of the final exams. Analysing of student grades in each course or specific questions within the final examination **as a direct assessment** that can give insight into the degree of achievement of SLOs, and reveal any actions needed for course improvement or adjustment.

- **The quality assurance committee at the department of animal production has selected and directly evaluated 3 program learning outcomes belonging to 2 learning domains, namely Knowledge and Communication, Information Technology and Numerical as follow:**

1. Direct assessment of knowledge learning outcomes:

Goal:

Prepare national staff scientifically qualified and practically trained in the various branches of animal production (Animal Breeding, physiology, nutrition, health and biotechnology) to meet the current and futures needs of the country in that specialty.

Learning outcomes tested:

1.1 To define the fundamentals of each aspect in animal production (such as nutrition, diseases, physiology etc.).

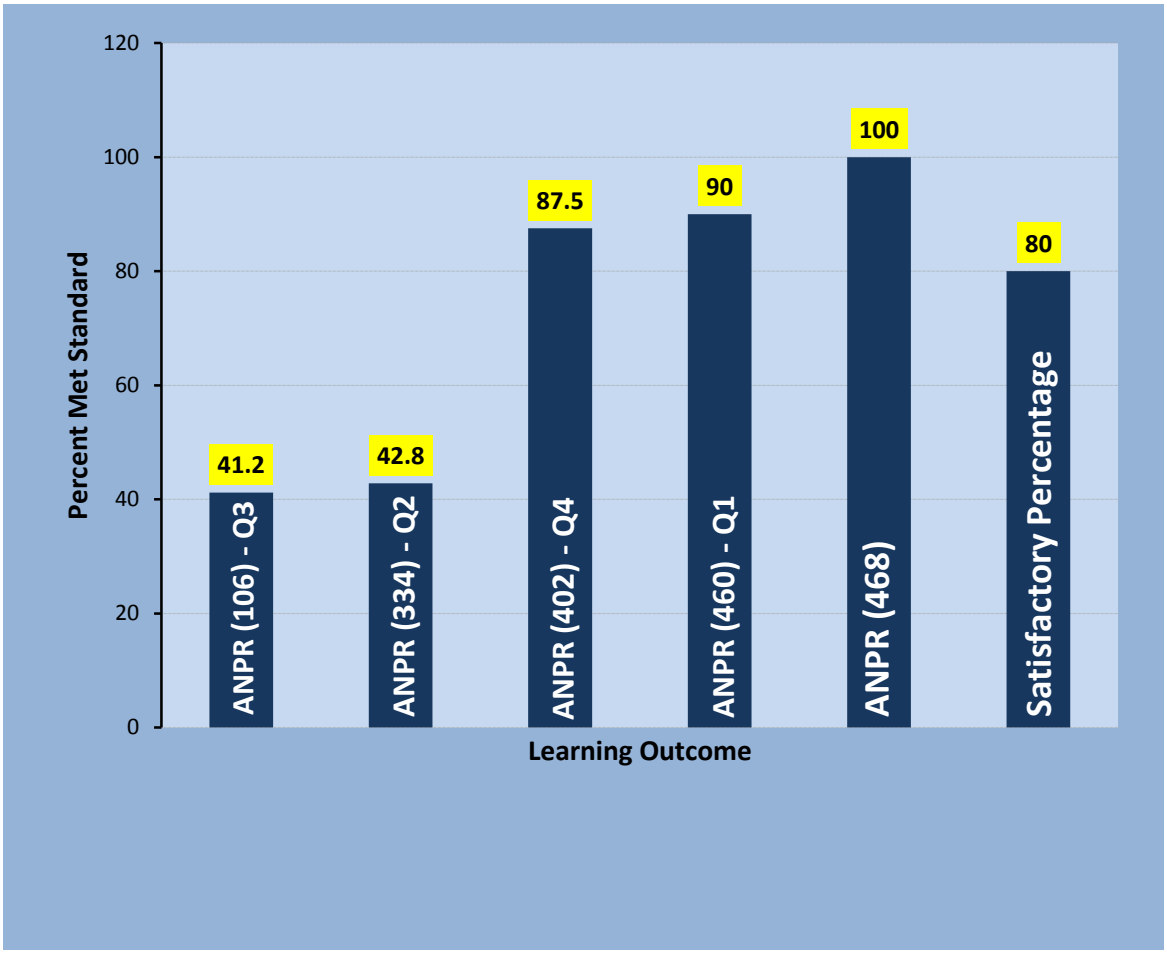
Assessment tools:

Direct assessment through an embedded exams questions and reports (ANPR 106- Q3; ANPR 334-Q2; ANPR 402- Q1; ANPR 460- Q1; ANPR 468- Report).

Satisfactory performance:

Satisfactory performance is 80% of enrolled students achieved >70% in specific questions, embedded in examinations, or reports.

Outcomes analysis: (see figure below).



Performance follow up:

Follow up is required by the head of the department and the Departmental accreditation Steering Committee to improve the learning outcomes of the courses that did not reach the satisfactory performance.

1.4 List the basics and the applications of animal science and production in farm animals.

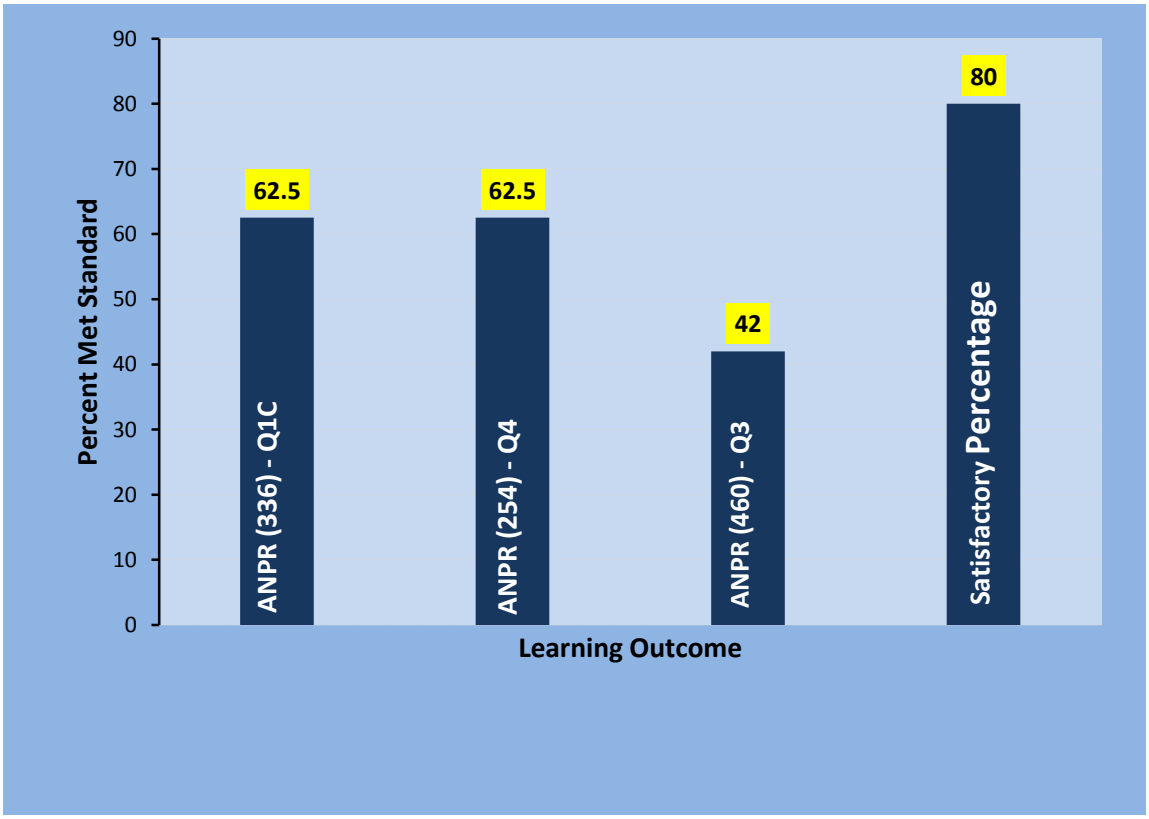
Assessment tools:

Direct assessment through exams embedded evaluation questions testing student's basic and application knowledge (ANPR 336- Q1c; ANPR 254-Q4; ANPR 460- Q3).

Satisfactory performance:

Satisfactory performance is 80% of enrolled students achieved >70% in specific questions, embedded in examinations.

Outcomes analysis: (see figure below).



Performance follow up:

Follow up is required by the head of the department and the Departmental accreditation Steering Committee to improve the learning outcomes of the courses that did not reach the satisfactory performance.

2. Direct assessment of Communication, Information Technology and Numerical learning outcomes

Goal:

Prepare national staff scientifically qualified and practically trained in the various branches of animal production (Animal Breeding, physiology, nutrition, health and biotechnology) to meet the current and futures needs of the country in that specialty.

Learning outcome tested:

4.2 Appraise the ability to gather, analyze, interpret data, write and discuss report.

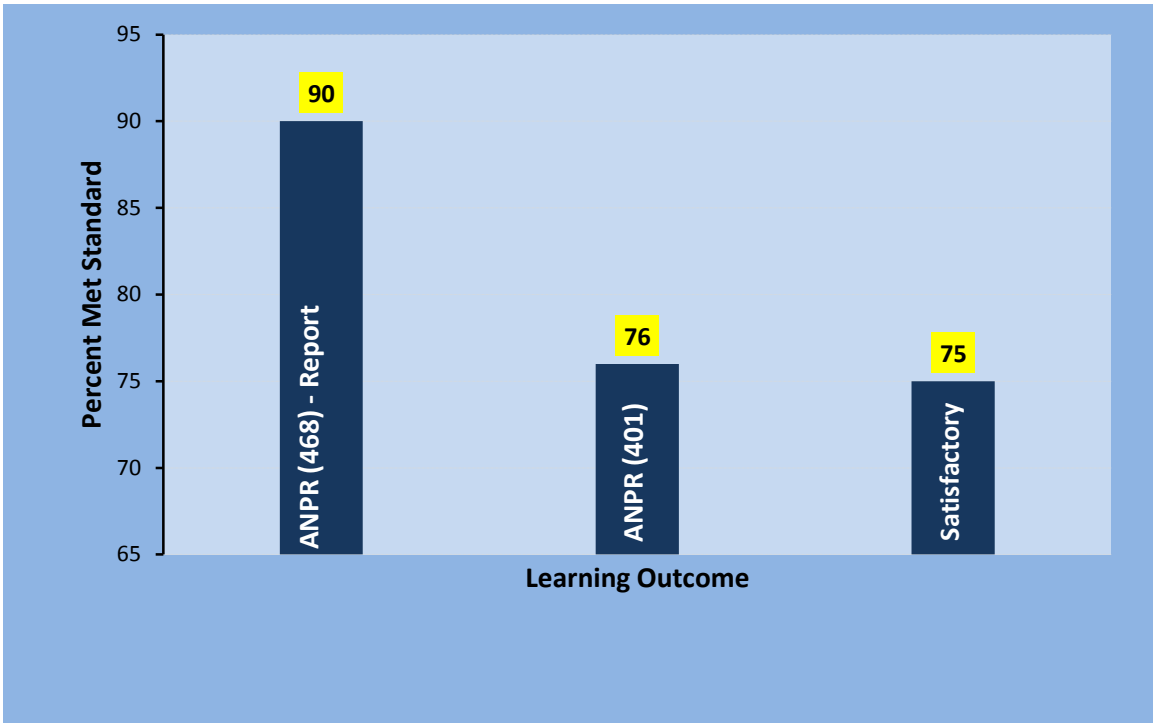
Assessment tools:

Direct assessment through embedded evaluation questions into Rubric assessment and report for ANPR 468 (Grading student sheet for field Experiences, Essay and Oral presentation) and ANPR 401 (Report scoring results).

Satisfactory performance:

Satisfactory performance is 75% of enrolled students achieved >76% in specific questions, embedded in examinations, or reports.

Outcomes analysis: (see figure below).



Performance follow up:

Follow up is required by the head of the department and the Departmental accreditation Steering Committee to maintain and ensure sustainability and improvement of the learning outcomes of those two courses in order to keep their LO at the resulted satisfactory performance level.

- **The program courses learning outcomes were designed by the relevant faculties to fulfil the relevant learning domains and learning outcomes of the program during the four years B.Sc. program and will be evaluated every year using the direct and indirect assessment methods (see table at page 62.).**

Student Course Evaluation Surveys

Each course goes through student evaluation at the end of each semester through a course. For example student evaluation survey measures teaching performance from the students' perspective. The survey is

conducted in the first and second semesters of each year. Statistical results show significant improvement in teaching performance (Figure 8.).

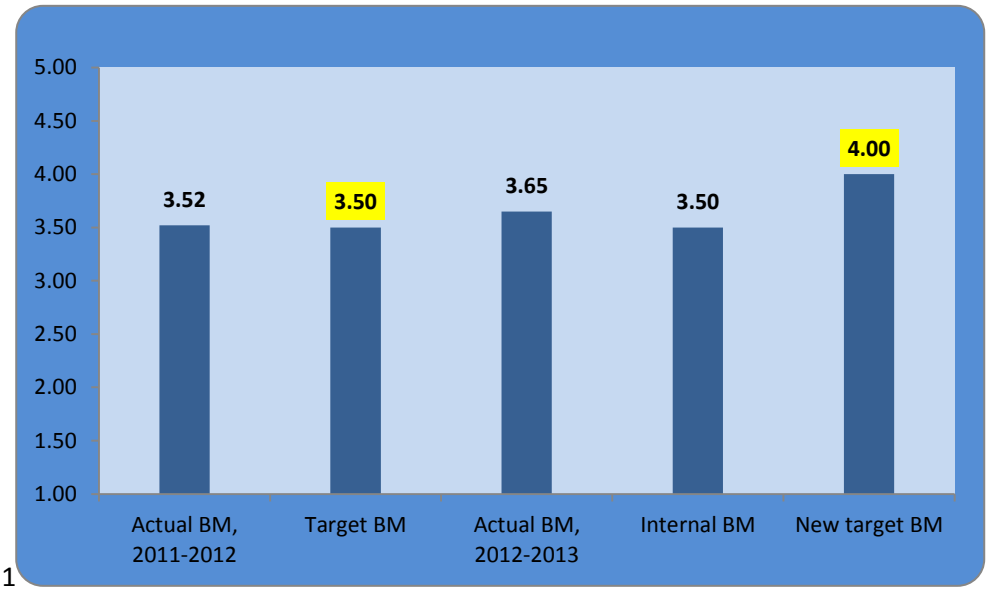


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Figure 8. Students overall evaluation on the Quality of their program on a five point scale for the last two academic years (2011-2012 & 2012-2013).

Graduate student survey

The graduate student survey conducted at the end of the second semester in each year prior to graduation ceremony. The aim is to show graduates' satisfactions and agreements on most of ANP. In particular, graduates satisfaction on overall staff members' performance. This result provides valuable information on the effectiveness of the program in achieving its outcomes. Furthermore, it can reflect the positive and negative aspects of the student's achievements in the program. Analysing the results of the survey allow for appropriate actions to be taken to improve the program.

Employer Survey

The employer survey is aimed to measure overall satisfaction towards program graduates with respect to program outcomes and program educational objectives. The survey is distributed to more than 10 public and private organizations throughout KSA.

Here is a report which includes a summary of strengths, areas requiring improvement, and priorities for action.

Strengths:

- High percentages of the graduates are being employed in both private and governmental sectors of animal production sector.

Recommendations for improvement:

- Feedback procedures with the graduated students and employers must be established.

Priorities for action:

- A committee should be formed for student extension and guidance.

- Sustainable communication methods with the students when they leave the university.

Use the below table to *provide all the program learning outcomes* required for graduation with the appropriate assessment methods and teaching strategies in alignment. Use the learning outcomes in the NQF domains of learning, assessment methods, and teaching strategies identified in the Program Specifications. If there are no learning outcomes required for the psychomotor domain then omit the fifth learning domain.

	NQF Learning Domains and Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge**		
1.1	To define the fundamentals of each aspect in animal production (such as nutrition, diseases, physiology etc.).	Lecture strategies and discussion strategies	1. Assessed directly through; - Written exams, rubric assessment, home works, quizzes, assignments, reports, and final exams), 2. Indirect assessment methods - Group discussing and personal reflection,
1.2	Recognize ethical and professional responsibilities of the carrier	Experiential learning by designing experiences	
1.3	Outline the role of the animal production and the impact of this carrier on Saudi economy and food security.	Problem-based learning and seeking solutions to real world problems	
1.4	List the basics and the applications of animal science and production in farm animals.	Team-based learning: students rely on each other for their own learning.	
2.0	**Cognitive Skills**		
2.1	Explain statistical and descriptive methods of analysing animal production process.	Active learning which will help in developing cognitive skills such as problem solving and critical thinking.	- Asking verbal questions - Group discussion, - Rubric Assessment -Attendance and group discussion
2.2	Evaluate real life problems that face the industry and find innovative solutions based on applicability	Experiential learning by designing experiences.	
2.3	Predict alternative solutions to problems that face animal production process.	Problem-based learning and seeking solutions to real world problems	
2.4	Summarize available resources and	Lecture strategies	- Assignments

	reading materials	and discussion strategies	- Reports
3.0	**Interpersonal Skills & Responsibility**		
3.1	Demonstrate ability to work as a member of a group and team	Coop-work provides an opportunity for students to work in groups and interact with others and will expose them to ethical and professional issues.	Evaluation forms filled by the lecturer in the course and trainers during training field about the skills and responsibility of the students during the coop period.
3.2	Analyse student leadership ability judge ability to perform self-learning.	Using of the tools of search for information.	Faculty evaluation for students in seminars, classes and projects.
3.3	Show awareness about ethical and professional issues face student while learning and working.	- Lecture strategies and discussion strategies	Presenting Seminars, lectures and deliver classes and projects.
4.0	**Communication, Information Technology, Numerical**		
4.1	Demonstrate good background in statistics and experimental methodology to conduct experiments and interpret the results, draw conclusion and write reports.	-Course Laboratories -Projects -Group and team works	Oral skills will be assessed in oral presentations. Oral testing and examination Students IT skills will be assessed in computer courses and other relevant courses directly through home works and exams (quizzes, majors, reports, and final exams)
4.2	Appraise the ability to gather, analyse, interpret data, write and discuss reports.	- Group discussion	- Assignments
5.0	**Psychomotor**		
5.1	Develop hand movements as needed in performing laboratory and field work (titration, pipetting, weighing and others).	Laboratory and field work allow the students to develop their physical, sensory and motor	In the laboratory exams students are assessed on their ability to perform tasks that require psychomotor skills.

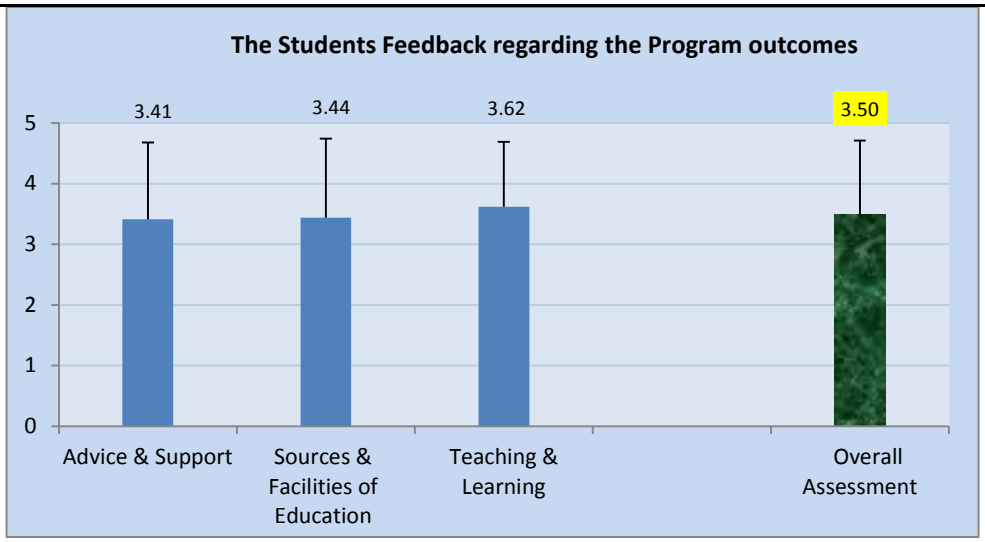
		skills.	
5.2			

Describe the general performance of the program learning outcomes; including external KPIs with benchmarks and analysis assessments from students and employer surveys and a summary of the direct assessment of student learning achievements (How well are the students learning?).

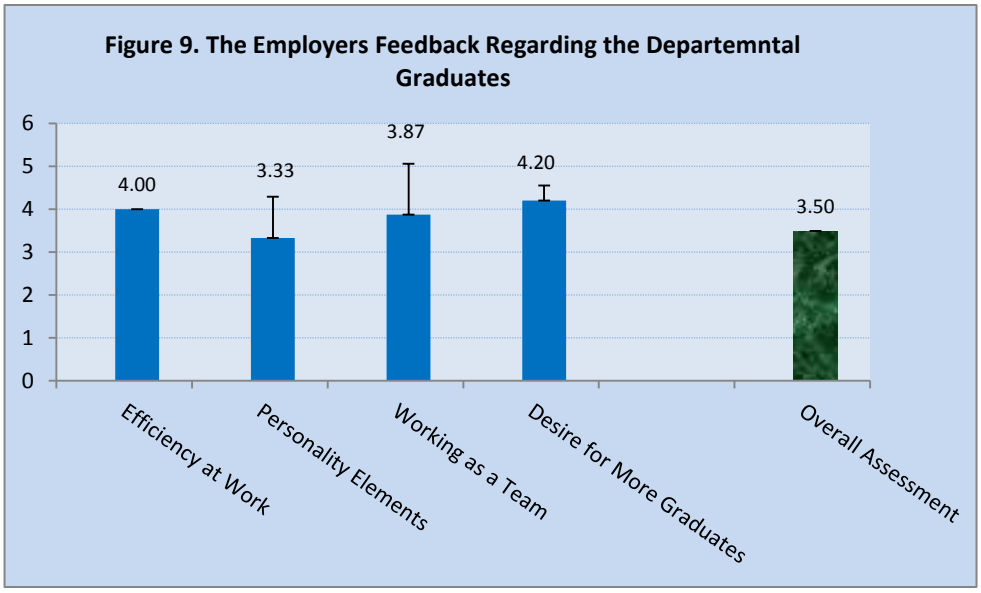
ANPR is aiming to achieve the appropriateness and adequacy of intended student learning outcomes. The appropriateness and adequacy of learning outcomes are the basic and general knowledge and skills acquired by students. The acquired general knowledge of the principles and mechanisms is underlying animal production systems, physiology, genetics, nutrition and sustainability. In addition, acquired a basic knowledge of biology, chemistry and veterinary science sufficient to understand cross-issuing subjects taught in the course. On the other hand, acquired the skills to use independently statistical softwares, library and internet resources relevant to the courses of ANPR is considered.

In general, the ANPR is aiming for graduate who are capable of professional success in any field of animal production sector. Therefore, the performance of the students while studying is measured by different types of measurements from written exams to individual and group participation as well as class participation. On the other hand, after graduation, the learning outcome is measured based on the previously mentioned measures along with students' and graduates employers' survey and finally program, student, course surveys. All courses have goals and objectives that are assessed through assessment process. Adequacy of intended student learning outcomes is assessed during cooperative training. Furthermore, field supervisors also provide feedback to an overall rating for the efficiency of learning outcomes during field training.

In addition, graduating student surveys, employers' feedback and subsequent performance of graduates are used to provide evidence about the appropriateness of learning outcomes. In this matter, Students gave 3.5 out of 5.0 as an overall feedback about the program outcome as indicated in Figure below. The high ranked assessment element was teaching and learning which given 3.62 out of 5. This value is more than the target benchmark (3.5) in KPI number 4 and less that the new target bench mark (4.0).



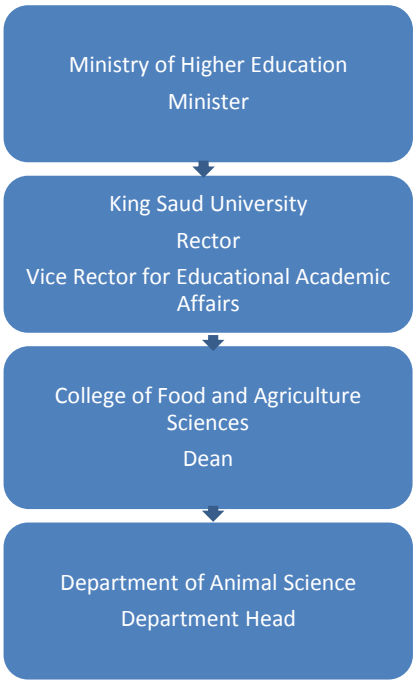
On the other hand, the employers' feedback indicates a similar overall satisfaction of 3.5 out of 5 for learning outcomes (Figure 9.). Two most related elements in the survey for learning outcomes which had higher scores were efficiency and proficiency at the work and desire for more graduates. Finally, the feedback of both graduated student and employers regarding the students' outcomes were good and less than ANPR benchmarks.



Describe the program learning outcome assessment system (What is it?); including the results and analysis for the last four years, a description of the leaders, faculty, committees and responsibilities and the names people who serve on each committee.

Assessment system of ANPR learning outcomes is the process that measures the suitable and measurable learning outcomes required in each of the learning domains. In addition, the assessment system is supporting application better teaching strategies that fit and align with the appropriateness of learning outcomes. The assessment methods are also applying accurate measure and evaluate the learning outcome.

Assessment system is descriptive in following administrative flowchart indicating the leaders and members;



The learning outcome assessment system is an ongoing process and involves all members of the KSU and starts from department in which all teaching course have objectives and description made clearly known to students. The assessment system outcomes are reported upward through faculty to the Vice-Chancellor of Academic Affairs at KSU then to the Ministry of Higher Education. The Learning Outcomes Assessment Requirement is a process that consists of different exams and attendees that measure student learning and is required prior to graduation. At department level, head of department, Prof. Ahmad Alhadairy, is responsible for keeping continuous reporting of students' final scores and attendance for each course. Academic staff is reporting those two assessment type to the department head on continuous time in each semester. On the other hand, the field training coordinator, Mr. Abdualla Al-Mulhim, is person of in charge of assessing students through group discussion, assignment and presentations. Mr. Abdualla Al-Mulhim is also a member in the committee specialized for outcomes assessment in the faculty, and responsible of conducting the survey and reporting to department head. The survey outcomes are then

discussed analysed and concluded by department council. The results and conclusion then passed through to Faculty council and assessment committee for further analysis and considerations. This reporting goes finally to Vice-Chancellor of Academic affairs at KSU who then directed the overall results of assessment to further consideration by designated committee and university council.

Those assessment methods pass through to Vice-Dean of Academic Affairs in the faculty who is reporting to the Dean, Prof. Fahad Al-Yahia. At faculty level, there is a committee of the before mentioned positions and names of each department as well as a representative of some pre-selected companies and local community.

The four-year results of the assessment system showed good satisfaction about learning outcomes of the program. For example, the above Figure shows results of satisfaction of employers about graduates who being professional at work as 4 out 5. In addition, the employers stated their desire for more graduates from department to be hired.

Describe the process and steps utilized for the complete assessment for all program learning outcomes (How does the system or process work?).

The assessment system work through steps utilized for the complete assessment for each course in ANP. The process ensures that each course should have a set of college wide common core learning outcomes and approved by the Curriculum Committee. Clear assessment strategies that involve all disciplines directly and indirectly (assignment, exam questions, etc.). Finally, embed assessment process and strategies are also applied into the course (add-on test or observations). The needed steps for complete assessment are acquired the knowledge and reach the required skills. The knowledge and intellectual skills are measured by different types of exams and assignment, whereas practical skills are measured during the field training.

List the strengths and recommendations for improvement of the learning outcome assessment (Based on the student performance results, how can the program improve?) (See *Annual Program Reports* for detailed data).

The strengths includes:

1- The integration of all elements of education process into assessment starting from department level to university headquarters level.

2- The integration of different personnel of different sectors. They are head of department, field training coordinator, students, employees and employers.

3- Assessment process is entitled to continuous change according the emerging issues in animal production industry and as response to feedback from SES and PES as well as employers' survey.

Recommendations for improvement:

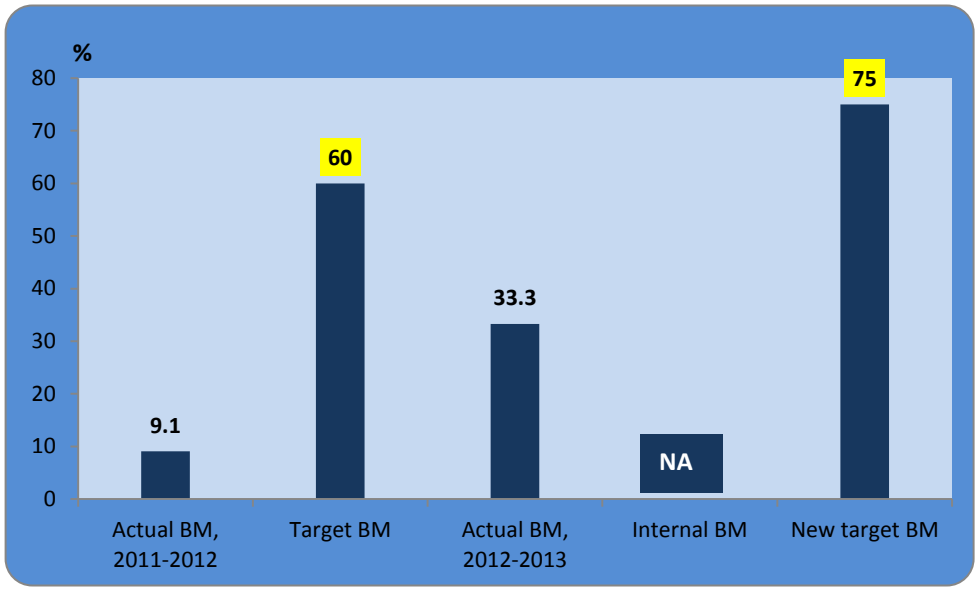
1- To reflect accurate assessment of learning outcomes, fast and more accurate evaluation methods are need.

Priorities for action:

1- Permanent learning outcome assessment committee is needed in ANP.

Evaluation of intended student learning outcomes. Refer to evidence about the appropriateness and adequacy of the intended learning outcomes for students in this program and ***provide a report*** including a list of strengths, recommendations for improvement, and priorities for action.

The appropriateness and adequacy of the intended learning outcomes for students in this program, is evident through students' records that show that high proportion of full time students commencing their program and complete it in minimum time specified with program.



Proportion of full time students commencing their program and complete it in minimum time specified with program during the last two academic years (2011-2012 & 2012-2013).

- The other evidence is that our data (not shown) that employed sectors offer jobs that need high qualification to meet job requirements to out ANPR students. Therefore, it is evidence that learning outcomes are sufficient and adequate to meet employer satisfaction and job opportunities. Noting that

job market's feedback assumes more than 80% of newly graduates hired for professional careers in employment sector. Any further information are indicated in KPI number 8 that state the target ratio of employment was achieved and as a consequence the target bench mark was matched.

The strengths includes:

1- The synergic integration between the theoretical and practical aspects for some courses enhances the acquired knowledge and skills.

2- The incorporation of human resources department and facilities supports units into evaluation of student learning outcomes.

3- Allow the current student to expose experience of successful graduates of ANP. Annual meeting is sometimes held to facilitate exposure of the students with some senior graduates who have high ranked positions.

Recommendations for improvement:

1- Evaluation methods should be annually reviewed.

Priorities for action:

1- Internal committee is needed in the department.

2- Establishing Academic Quality unit in the department.

3- Finding out an organization that deals with and plays effective role in promoting graduate students to be hired by respected employers.

Subsection 4.2 Program Development Processes (Overall Rating ____4.0__ Stars)

Describe the processes followed for developing the program and implementing changes that might be needed.

The need for development of the program curriculum as a response to job requirements and employers is usually consisted for that value high qualification skills. Also, curriculum improvement and development is essential in competition with attraction attempts by similar programs at different universities in the country. Major changes in the program have been implemented recently to enhance learning outcomes as follows:

1- The program is subjected to continuous revision and evaluation since 2006.

2- In 2009, due to the establishment of the preparatory year by KSU, the department council modified and approved the modification made to the program curriculum. The modified program was recently approved by the University Academic Committee and University council and shortly after that by University council in order match current academic modification.

Evaluation of program development processes. Refer to evidence and provide a report including a list of strengths, recommendations for improvement, and priorities for action.

The strengths includes:

1. Including cooperative training course as a main part of the new curriculum which was designed to acquire better learning outcomes.

2. Considering achievement of international universities of good learning outcomes.

Areas requiring Improvement:

1. The curriculum development is needed to match the internal benchmarks, international and national requirement for learning outcomes.

2. Exchange experience of assessment methods of good learning outcomes with other well known national or international universities and research institutes.

Priorities for Action:

- Consortium of one international and /or national institute(s) should be formulated for learning outcome assessments.

Subsection 4.3 Program Evaluation and Review Processes (Overall Rating 3.50)

Describe the processes followed for program evaluation and review.

The program evaluation is done at both internal and external levels.

- Internal Evaluation Level: the curriculum development committee constantly review and develop for improvement. It is based on course evaluation survey results and data of success rate which is annually sent by Deanship of Admission and Registration. In addition, the department council is annually examined the study report, detailed faculty CVs, and the department and faculty website, available facilities of classrooms, laboratories, the library, and the Preparatory Year Centre. The department council is reviewing the farms and research facilities.
- External Evaluation Level: the program was subjected for assessment by the Agricultural Institute of Canada (AIC).

The AIC Accreditation Committee granted Full Accreditation Equivalence to ANPR in 2010. This accreditation was depending on the success over the prior two years, including an adequate number of students were enrolling and facility were used. The AIC commended the high faculty to student ratio and noted how this provides a wide variety of subject matter expertise. They recommended providing summer training to students with no farm or related experience after first and second year, forming an alumnae association to maintain contact with graduates, and promoting equal value and compensation be given to teaching and research.

Evaluation of program evaluation and review processes. Refer to evidence and ***provide a report*** including a list of strengths, areas recommendations for improvement, and priorities for action.

Strengths

1. Good evaluation process including internal evaluation based on students and program surveys.

Areas requires improvement

1. A continuous process for assessment of learning outcomes considering course and subjects Portfolios.

2. Students and annual evaluation survey must be fully considered in whole evaluation process.

Priorities for improvement

1. A frequent updating based on evaluation process of learning outcomes.

List the conclusions that were reached about the quality of the program as a result of using the program evaluation and review processes. Reference should be made to data on indicators and survey results as appropriate.

1- Students have acquired good knowledge and skills

2- Some students apply principles of logical solution and argument in providing professional solution to industry as a private business while still studying.

4- The students meet standards and skills for professional work as their employment rate is 80% within six month time after graduation.

Subsection 4.4 Student Assessment (Overall Rating 3.70)

Describe the strategies for student assessment in the program and the processes used to verify standards of student achievement.

The Department implements strategies of assessment known globally such as written examination, oral examination, essays, reports, presentation, short answer questions, paper-based or computer based assignment and tests. These strategies are clearly introduced to students at the beginning of each course

semester through the course syllabus. Courses vary in adoption of these strategies. On the other hand, rubric assessment of multiple choice or fill in the blank is applied to several courses. For example, Introduction to Animal Production Course (ANPR 106) is utilizing the rubric assessment. In general different ways of assessment to evaluate the learning domain are applied. The below Table indicates major courses in ANPR with the assessment tools. Each different assessment tool has a percentage of assessment in evaluating student performance. The highest percentage is given to Written exam which is used in all courses in ANP for evaluation learning domain. The second most common assessment method is assignment.

	Course Name				
	ANPR106	**ANPR226**	**ANPR220**	**ANPR326**	**ANPR466**
Quiz	**--**	**10%**	**25%**	**--**	**--**
Assignment	**20%**	**20%**	**10%**	**20%**	**5%**
written Exams	**80%**	**65%**	**65%**	**80%**	**80%**
Group Discussion and Contribution	**--**	**--**	**--**	**--**	**10%**
Take home Assignment	**--**	**5%**	**--**	**--**	**5%**

Evaluation of student assessment processes. Refer to evidence about effectiveness of student assessment processes. ***Provide an evaluation report*** of the processes followed for this sub-standard; include evidence about the standards of student learning outcomes achieved in comparison with appropriate benchmarks. The report on this sub-standard should include a list of strengths, recommendations for improvement, and priorities for action.

- Feedback on performance and results of assessments are given promptly to students. In addition, course instructor is requested to keep the original sheet of the student assessment process. On the other hand, there are various verification methods in considering standards for assessing the students learning outcomes. For instance, double marking is made for some courses such as course named Introduction to Animal Production course (ANPR 106) in which the course coordinator ask two or more lecturers to mark same students' exam sheet. In particular the coordinator copy students' written exam and then given to different lecturers with Key-Answer sheet ti be marked separately.

Strengths:

1. The student assessment processes are verified and assessed at department level.

2. Assessment strategies are clearly identified to students ahead when course curriculum delivered.

Recommendations for Improvement:

1. The standards of achieved student learning outcomes should be matched with new benchmarks.

Priorities for Action:

1. Course instructor should use electronic evaluation tools in order to manage better assessment process.
2. Training programs for instructors with regard to efficient use of Electronic teaching tools.

Subsection 4.5 Educational Assistance for Students (Overall Rating 4.62)

Provide a summary report of what assistance is provided in relation to the matters listed in this sub-standard (e.g. orientation programs, office hours, identification and assistance for students in need, referrals to support services etc.).

- Assisting student in learning process is achieved through academic advices, study facilities, and monitoring student progress. Teaching staff, Student Guidance Committee and the Deanship of Academic Affairs are available for sufficient time to conduct consultation and advice to the students. King Saud University provides free e-mail account for faculty members and students to facilitate effective communication. The university provides PC labs with new PC models and the student can write assignments or print materials related to courses. Also, the university offers a web page for every faculty member to upload academic materials (course syllabus, lectures, links, videos, images, office hours and announcements). The KSA has also lunched E-learning tool called "Blackboard" in which instructor of each subject communicates and teaches. Furthermore, students can contact faculty members by emails and other public internet social communication sites that are presented on their web-pages and the university directory. On the other hand, regular meetings are conducted between faculty members and students. A special attention is usually given to students facing difficulties, e.g. low GPA, where their course loads are monitored by the academic advisor. Moreover, many other departments and units provide assistance and counselling to the students such as the Library, IT, medical, and others.

  According to AIC evaluation report, counselling of students occurs at several levels. There is a University wide counselling service which is supplemented by the assignment of students to an individual faculty member in the College of Food and Agriculture Sciences for advice in academic program selection and personal problem solving. In addition, the College of Food and Agriculture Sciences provides more generic advice by way of seminars and open houses to explain college programs and activities. Students commented positively on the high level of availability of faculty members in the college and the close and caring relationship that they have with these faculty members which extends beyond graduation.

Students are assisted in developing professional attitudes and contacts through field tours and internship programs and also through charitable student activities. Mentorship and personal examples of dedicated faculty also contribute in this area.

Choose **ONE OR MORE** KPIs that best supports that the program meets this standard. Each KPI should use a separate KPI table. Insert the KPI in the table below, add the actual KPI benchmark with the other benchmarks, and provide an analytical interpretation that describes the outcome (most benchmarks are numerical and others may be descriptions that verify quality using a rubric).

KPI 10: Student evaluation of academic and career counselling.

Target Benchmark	3.5
Actual Benchmark	3.67
Internal Benchmark	3.00
External Benchmark	NA
New Target Benchmark	4.00

Analysis: The KPI result has surpassed its target benchmark. The target benchmark was low in this KPI but it is still considered reasonable when compared to actual benchmark. The difference between two values is around 0.27 than could be achieved. As consequence, the target has been set to 4.0 for the next year with an expectation to achieve it. Comparing it with internal benchmark, The Agriculture Engineer Department, it is still quite higher and better than it. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for the KPI.

Provide an evaluation report of processes for educational assistance for students. Refer to evidence about the appropriateness and effectiveness of processes for assistance of students in this program (e.g. Is the assistance what is needed for these students, is it actually provided as planned, and how is it evaluated by students?). The report should include a list of strengths, recommendations for improvement, and priorities for action.

Educational assistance in ANPR is entitled to head of the department who is formulating a committee to follow up student registration and assign student to one of the department staff member. The staff member provides a vital link between ANPR and the student. The needed assistance by student is in general provided in and during enrollment, semester registration and course selection. In some details, students get educational assistances and advices from their lectures and supervisor in every semester. The lecturer is entitled to announce time for his students in order to consult, usually through office hours. In addition, the Student Guidance Committee in deanship

of academic affairs is also another buddy for educational assistance for all times in working days. The appropriateness and effectiveness of students assistance is investigated by conducting student surveys.

Strengths:

1- All faculty members are available at pre-scheduled times of weekly office schedule for students educational assistance.

2- Student affairs committee, at the department level, consists of faculty members who are entitled to look after students' needs and listen to their suggestions about effective ways to maximize educational assistance.

3- New students receive all information about the university program and facility, in general, and ANP in particular, during opening registration time. of science programs, facilities, duties and rights through a one day program prepared by the deputy of academic affairs in the college.

4- A special program for students having difficulties in their studies has placed by the department council.

5- General information and contact details are placed to students through college handbook, departmental handbook, the website of the department and on Department advertising wall board.

Recommendations for improvements:

- Increasing contact time between faculty members and students. This can be achieved by using different communication systems such as electronically social communication tools system; (e.g. Twitter, Facebook, Blackboard), where students using mobile computing may stay in touch with the faculty members. (See the following URL: http://icochise.com/faculty/SevenContact.html).
- Better means of transportation for students from/to educational farm in Al-Ammareiah district.
- Annual report stating the proportion of students entering preparatory year as compared to those who passed onto next year.

Priority for actions:

- The advance communication tools should be comprehensively used between faculty members and students, such as the Electronic Learning (EduGate, Black Board) and Short text messages (SMS).

Subsection 4.6 Quality of Teaching (Overall Rating 4.42)

Provide information about the planning of teaching strategies to develop the intended learning outcomes of the program, for evaluating quality of teaching, and processes for preparation and consideration of course and program

reports. This section should include a table indicating the proportion of teaching staff whose teaching is regularly assessed in student surveys (or by other mechanisms).

- The strategies of teaching and assessment processes are followed-up by teaching staff and two committees. The two Committees are the Assessment and Academic Accreditation Committee and the Student Guidance Committee. They reviewed the teaching and learning strategies in the program and course specifications, the student scores and exams. In addition, they reviewed the teaching evaluations through student survey, and other activities performed in each year such as students' workshops.
- In order to improve the quality of teaching, KSU established the Deanship of Skills Development (DSD), to develop the professional skills of faculty members especially the new staff members. In this context, the DSD offers many training programs such as:

  1- Personal, technical and professional skills of the faculty. First of all, there is considered programs of new faculty which is the most important program in the path of professional development for the faculty member. There are hardly ways to state all programs offered by the DSD at the University for the Learning Outcome Improvement. Advance offered programs are also given in order to achieve the greatest impact on the continued outstanding performance and the active role played by the faculty members in the educational process.

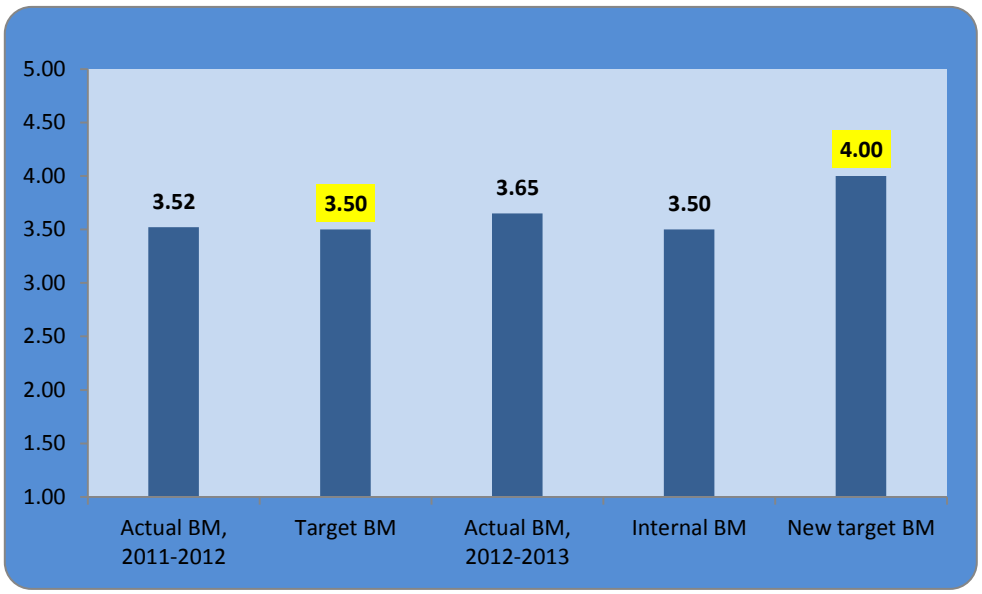
  2- Academic teaching and research skills. Various programs are offered. For instance, professional certificate program provided in university teaching a unique opportunity for members of the faculty at King Saud University for the collection of knowledge and skills related to teaching and learning in general and their applications in specialized areas in particular, and join a faculty member at King Saud University in this program allows her/him to take advantage of the concepts of teaching and learning and the application of teaching practices and academic actors.

Choose **ONE OR MORE** KPIs that best supports that the program meets this standard. Each KPI should use a separate KPI table. Insert the KPI in the table below, add the actual KPI benchmark with the other benchmarks, and provide an analytical interpretation that describes the outcome (most benchmarks are numerical and others may be descriptions that verify quality using a rubric).

KPI 1: Students overall evaluation on the quality of their learning experiences at the institution. (Average rating of the overall quality of their program on a five point scale in an annual survey final year students)	
Target Benchmark	3.5
Actual Benchmark	3.65
Internal Benchmark	3.5
External Benchmark	NA

New Target Benchmark	4.0

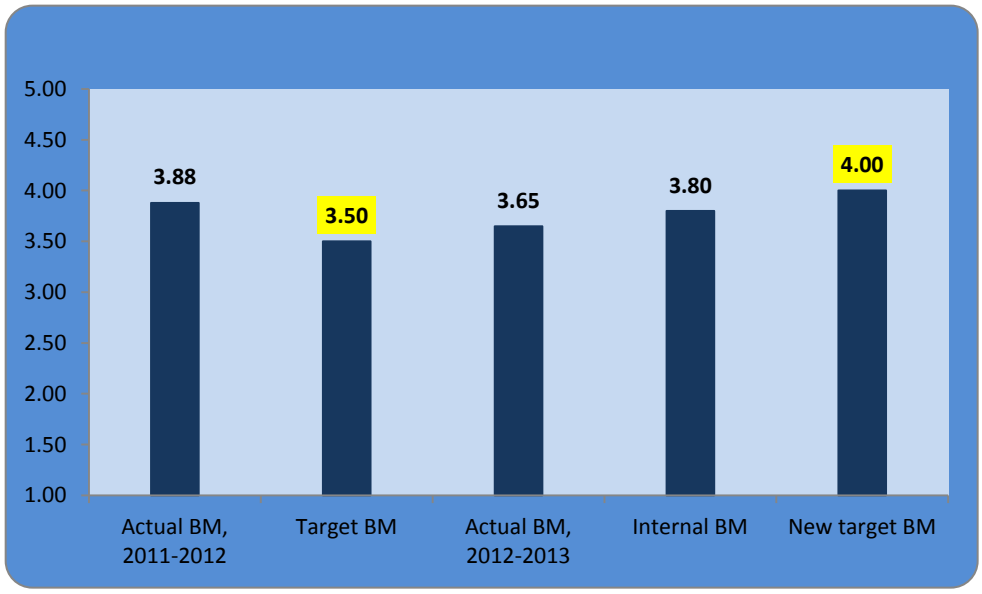
Analysis: The table clearly shows that our performance for this KPI is higher than the target benchmark and internal benchmark (which is plan protection program). No external benchmark could be identified so far due to non-availability of data of other institutions (local or international). Quality committee is trying its best to identify external benchmark for this KPI. Keeping the results of target and actual benchmark in view, the target for the new academic years has been set to 4.0 as we will be working on the areas requiring improvement in our survey forms for better results in future.



Students overall evaluation on the Quality of their program on a five point scale for the last two academic years (2011-2012 & 2012-2013).

KPI 4: Student overall rating on the quality of their courses	
Target Benchmark	3.5
Actual Benchmark	3.65
Internal Benchmark	3.8
External Benchmark	NA
New Target Benchmark	4

Analysis: The KPI number 4 is supporting the program teaching quality. The results of benchmarks indicate small value within a range of 0.15. This discrepancy could be eliminated in future considering the desire of the department to achieve higher value in the new target benchmark (4.00). In other words, the table clearly shows that the performance for this KPI is higher than the target and closer to internal benchmark. However, it needs to be increased, so the target benchmark for the next year has been set to 4.0. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.



Students overall rating on the quality of their courses on a five point scale, for the last two academic years (2011-2012 and 2012-2013).

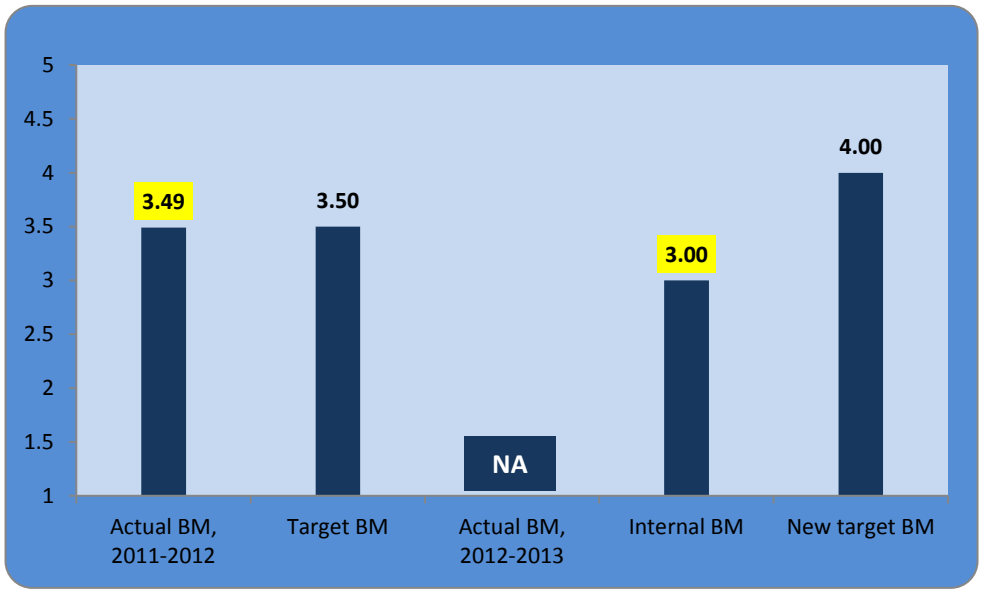
KPI 9 : The overall rating of the employers on the performance quality of the program graduates

Target Benchmark	3.5
Actual Benchmark	3.49
Internal Benchmark	3.0
External Benchmark	NA
New Target Benchmark	4

Analysis: The KPI number 9 is supporting the program teaching quality. The actual benchmark was not

available for measurement. The results of target benchmarks of target, internal and external indicate values from 3.0 to almost 3.6. This discrepancy could be eliminated in future considering the desire of the department to achieve higher value in the new target benchmark (4.00). Furthermore, Employers' feedback is one of the crucial indicators. The table shows that it almost reached the target and looks better compared to internal benchmark. However, the target has been increased for next year as the program expects a higher satisfaction rating due to effective methods in teaching and learning. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.

Incorporation of employers' feedback into learning and teaching process through lecturing and workshops will be considered for improvement.

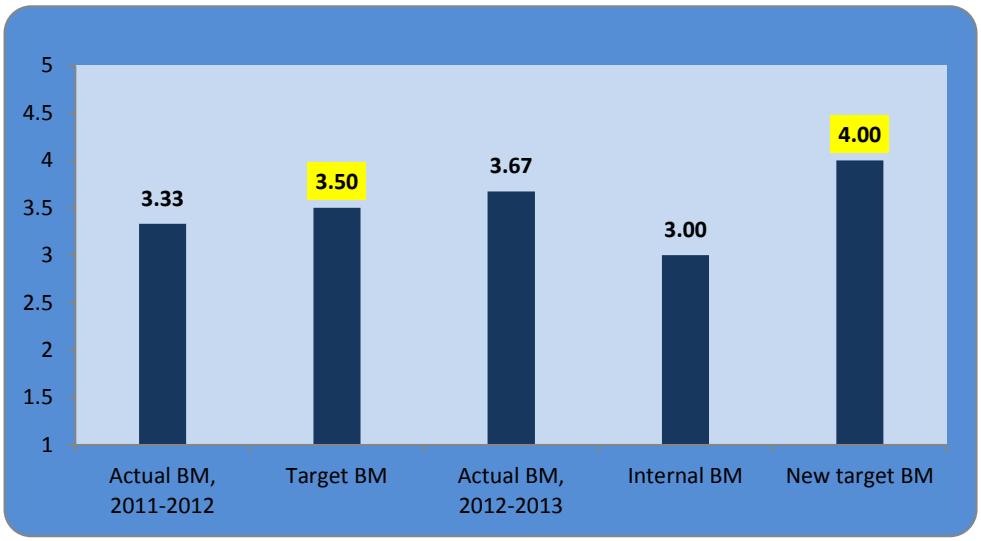


The overall rating of employers on the performance quality of the program graduates on a five point scale, in the last two academic years (2011-2012 and 2012-2013).

KPI 10: Student Evaluation of academic and career counseling.	
Target Benchmark	3.5
Actual Benchmark	3.67
Internal Benchmark	3.0
External Benchmark	NA

New Target Benchmark	4

Analysis: The KPI number 10 is supporting the program teaching quality. The results of benchmarks indicate small value between actual benchmark and the new target bench mark (~ 0.33). This discrepancy could be eliminated in future considering the desire of the department to achieve higher value in the new target benchmark (4.00). However, the target was kept low in this KPI in order to create the culture of evaluation. That is why; the target has been set to 4.0 for the next year with an expectation to reaching close to it. Comparing it with internal benchmark, it is quite better than the internal benchmark**.** No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.



Student overall evaluation of academic and career counseling on a five point scale, in the last two academic years (2011-2012 & 2012-2013).

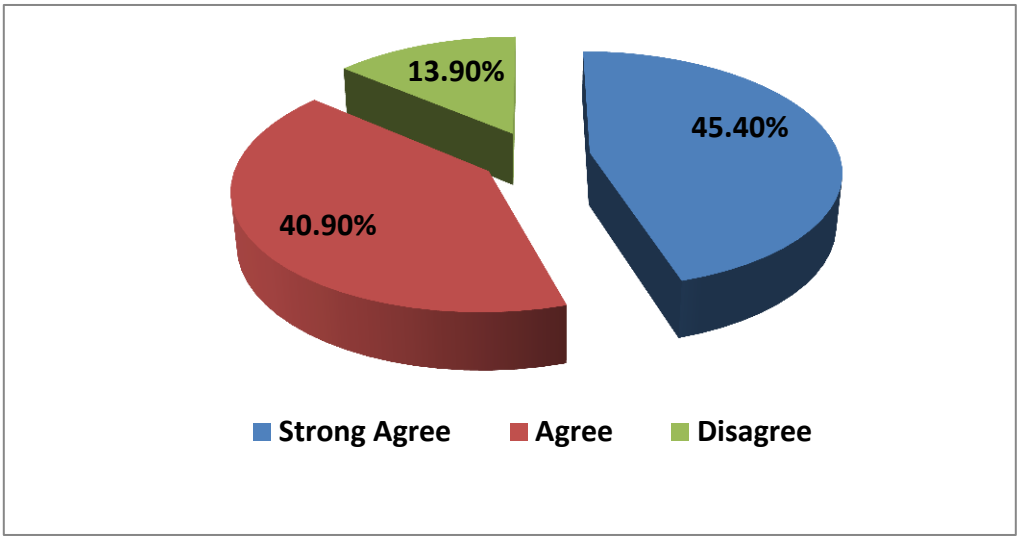
Evaluation of quality of teaching. Refer to evidence about teaching quality and <u>provide a report</u> including a list of strengths, recommendations for improvement, and priorities for action. The report should include a summary of data from student surveys used for course and overall program evaluations, with information provided about sample size and response rates on those surveys. Comparative data from other similar surveys should be included.

Quality of teaching is identified as a key influence on high quality learning outcomes for intended students. The evidence reveals that up to 80% of graduates are employed in six month time after graduation as well as 60% of students were completed their course in requested duration.

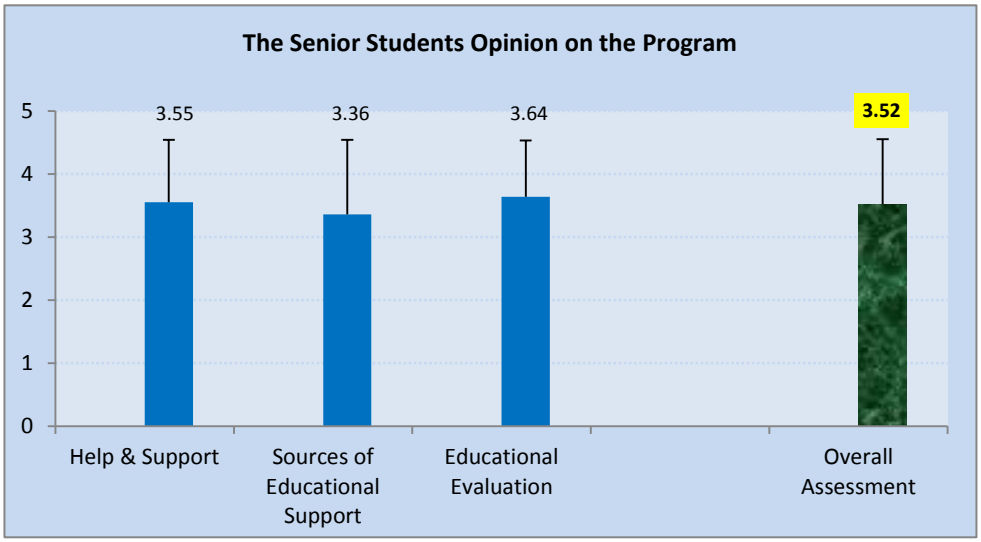
Teaching quality is the integration of many components such as class starts and ends on time, instructor is always

present, materials are well prepared, the availability of resources, using technology to support learning; and grading tests and other courses requirements were fair and reasonable.

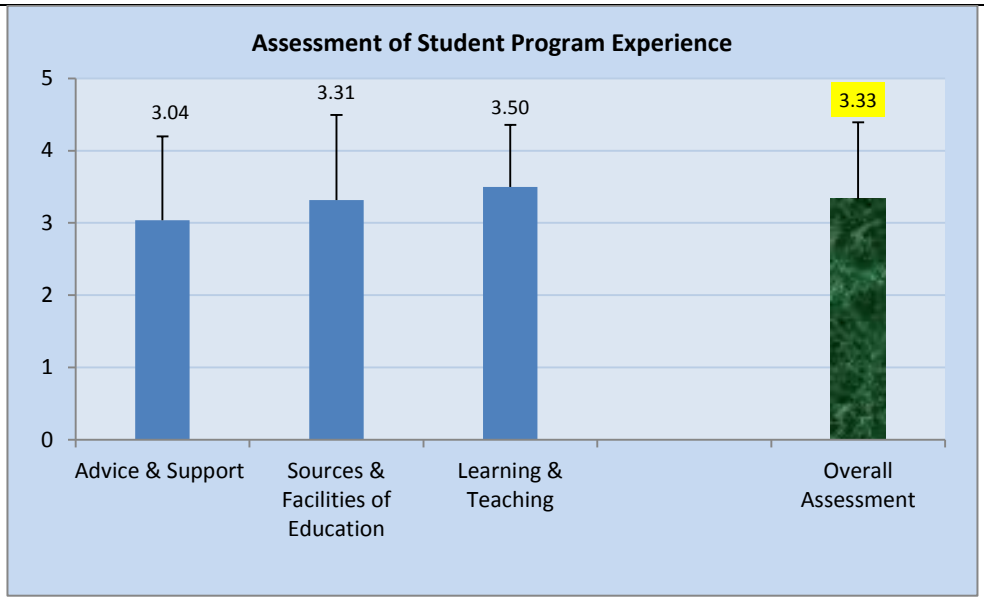
- Course evaluation survey demonstrated that students satisfaction about the quality of learning courses and outcomes (45.45% - strongly agree and 40.91% - agree where 13.91% - disagree) (See below Figure). Also, reports of most courses provided good information about the quality of teaching (3.88) in which standards showed overall assessment of 3.52 out of 5.0.



- The Program Evaluation Survey (PES) result indicates that the program meets the learning objectives of intended students as shown below.



- The Student Experience Survey (SES) showed satisfaction about the course work program that they have completed, including their attitudes towards the skills they have acquired, and the quality of teaching provided to them.



- Staff performance evaluation by the students.

Strengths:

1- Deanship of Skills Development (DSD) training programs are reflected in the quality of teaching.

2- High quality and efficient teaching process through the use of Smart Blackboards.

3- Policy and procedure for students' evaluations are applied.

4- High number of teaching staff with verified doctoral qualifications.

Recommendations for improvements:

1- Course reports should be frequently analysed to monitor the academic quality.

2- E-learning courses should be introduced.

Priorities of action:

- The permanent Committee on Assurance and Quality in the department should be in charge of monitoring teaching quality and other related subjects.

Subsection 4.7 Support for Improvements in Quality of Teaching (Overall Rating 4.0)

Provide a report that describes the strategies for the improvement of teaching. Include a table showing staff participation in training and/or other activities designed for the improvement of teaching and other related professional development activities. The description should include processes used for investigating and dealing with situations where evidence suggests there may be problems in teaching quality, and arrangements for recognizing outstanding teaching performance.

The DSD urges workshops to improve the skills of all KSU staff members to achieve excellence and creativity in

learning and teaching. Some of these workshops are designed to improve the abilities of faculty to design and develop courses portfolios and transform them to electronic contents and how to use the latest technology and instructional techniques. The development includes curriculum design, evaluation, and statistical software. To insure high quality of teaching, KSU rewards faculty member for excellence in teaching performance (the flowing URL):

http://ksu.edu.sa/sites/KSUArabic/Deanships/quality/Pages/discrimnate.aspx

Strengths:

1- Continuous faculty development programs provided by DSD.

2- The diversity of excellent backgrounds and qualification of faculty members.

Recommendations for Improvement:

1- Faculty member should continue developing his skills throughout his academic career.

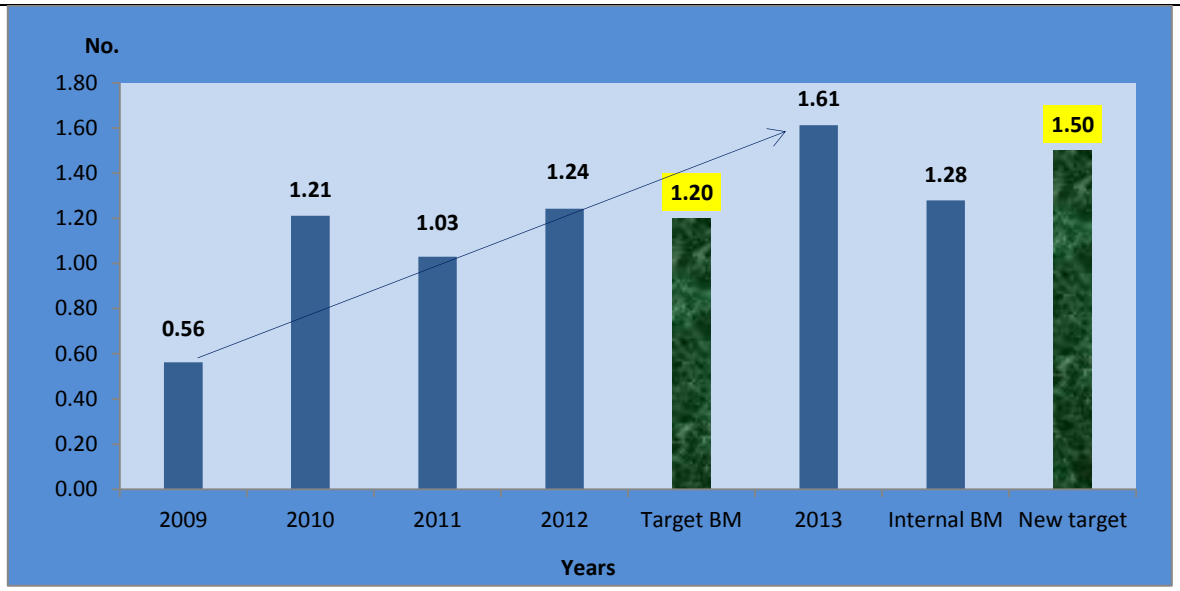
Priorities of Action:

- Faculty members should enforce to join a certain number of development activities every year through offering incentives.

Subsection 4.8 Qualifications and Experience of Teaching Staff (Overall Rating 4.8)

Provide an analysis report on the qualifications and experience of teaching staff relating to program requirements (Refer to the *Periodic Program Profile Template B*).

Most faculty members in the department of animal production have their postgraduate training at international universities in Europe and the United States of America. To keep faculty members abreast with the latest developments in their field, they are supported by KSU to participate in local and international conferences and workshops where they can orally present their findings (see the steadily annual increase of the staff contribution in publication in below Figure). Such activities strongly enhance the experience of teaching staff by meeting with fellow scientist and researchers from different countries. Many faculty members in the department obtained local and regional awards.



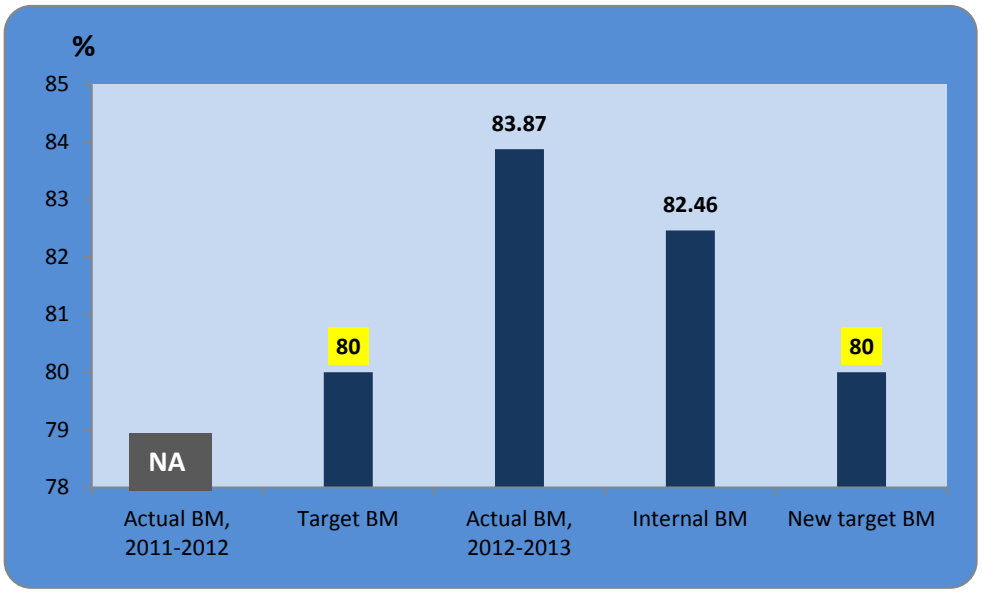
Number of refereed publications in last five years (2009 - 2013) per full time equivalent member of teaching staff.

Evaluation of qualifications and experience of teaching staff. Refer to evidence and ***provide a report*** including a list of strengths, recommendations for improvement, and priorities for action.

Choose **ONE OR MORE** KPIs that best supports that the program meets this standard. Each KPI should use a separate KPI table. Insert the KPI in the table below, add the actual KPI benchmark with the other benchmarks, and provide an analytical interpretation that describes the outcome (most benchmarks are numerical and others may be descriptions that verify quality using a rubric).

KPI 5: Proportion of teaching staff with verified doctoral qualifications.	
Target Benchmark	80%
Actual Benchmark	83.87
Internal Benchmark	82.46%
External Benchmark	NA
New Target Benchmark	80%
Analysis: The KPI number 5 is supporting the qualifications and experience of teaching staff. The result of benchmarks indicates more than 80% of staff have excellent qualification. The department's plan to maintain and keep this ratio in its new target benchmark. In more details, the results for this KPI are quite good as the	

program has more than 80% faculty members with doctoral qualification. This is quite close to internal benchmark as well. The target for the next years has been kept the same as current year as the results would not change for few more years. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.



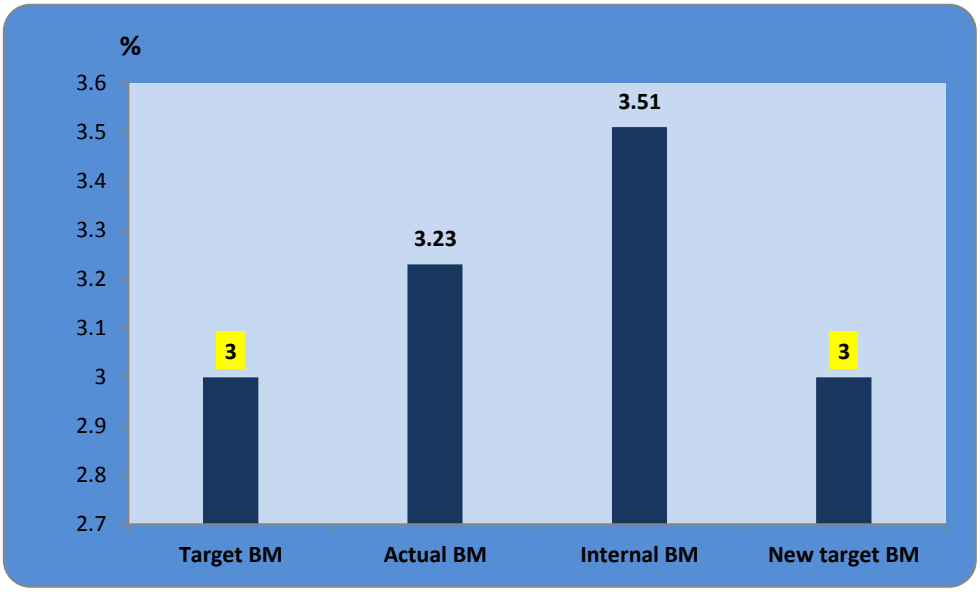
Proportion of teaching staff with verified doctoral qualifications during the last two academic years (2011-2012 & 2012-2013).

KPI 13: Proportion of teaching staff leaving the department in the past year for reasons other than age retirement.

Target Benchmark	3%
Actual Benchmark	3.23%
Internal Benchmark	3.51%
External Benchmark	NA
New Target Benchmark	3%

Analysis: The KPI number 13 is supporting the qualifications and experience of teaching staff. The results of benchmarks indicate less than 3% of staff leaving the department. The department's plan to maintain and keep this ratio in as minimal as 3%. In addition, the actual benchmark falls within the range of the target. More actions are needed to cut off reasons which lead to leaving the department. The higher administrative authority has to be involved to reduce the number of staff leaving the department. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for

KPIs.

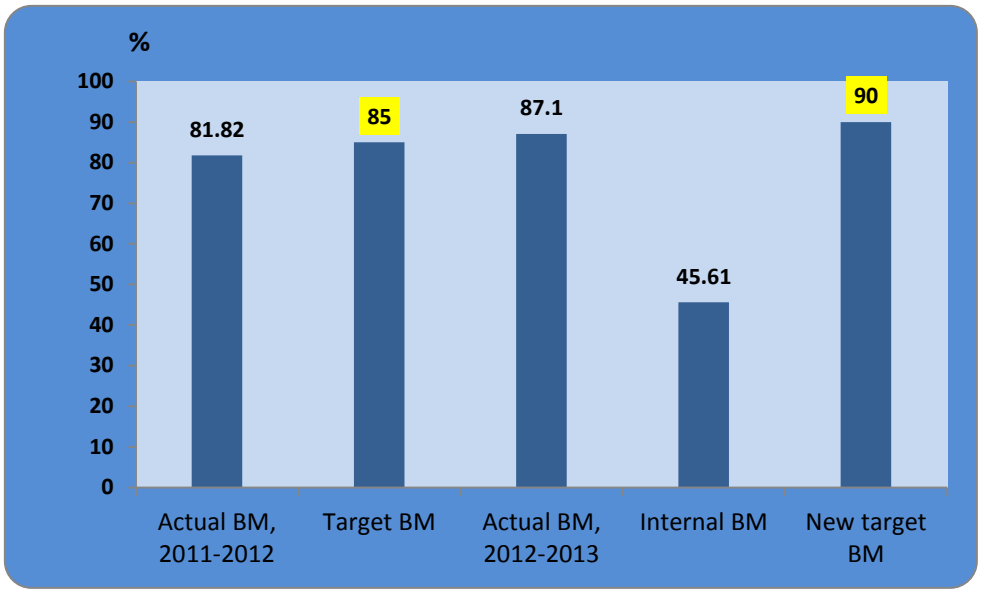


Proportion of teaching staff leaving the department in the past year for reasons other than age retirement.

KPI 16: proportion of full time member with at least one refereed publication during the previous years.

Target Benchmark	85%
Actual Benchmark	87.1%
Internal Benchmark	45.61%
External Benchmark	NA
New Target Benchmark	90%

Analysis: The KPI number 16 is supporting the qualifications and experience of teaching staff. The results of target benchmarks indicate 85% of full time members with at least one refereed publication during the previous years. The new target benchmark is aiming higher ratio of 90%. Moreover, the table indicates a very good performance of faculty in this KPI which is 85% leading to the conclusion that almost all faculty members are engaged in research publication in refereed journals. The internal benchmark for this KPI which is plant protection department is far below. This means that the performance is quite better in research publication. The target for the next year has been increased to 90%. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.



Proportion of full time member of teaching staff with at least one refereed publication during the previous year 2013.

Strengths:

1. Highly qualified faculty members.
2. All faculty members are full time employees.
3. Unlimited support by the University for Faculty Members.
4. Visiting Scientists Program that facilitates Scientists to visit KSU for collaborations tasks.
5. Distinguished scientist fellowship program that facilitates highly cited scientists to visit KSU for experience sharing and exchanging.

Recommendations for improvement:

1- Encouraging the faculty members to spend a sabbatical leave in an international university to teach and conduct research.

2- Encouraging cultural exchange with international universities to improve quality of teaching and research.

Priorities of Action:

- Sabbatical leave regulations and teaching curriculum development should be modified and updated**.**

Subsection 4.9 Field Experience Activities (if used in the program) (Overall Rating 4.0)

Describe the processes for planning field experience activities and planning for improvement.

Field experience is important to animal production students and consequently the department council established the "Cooperative Training Course" where students spend one semester plus summer time in one of Saudi Agricultural companies (SAG group). A complete arrangement is done between the responsible staff member of training at KSU and the supervisor in the field training company regarding the proper student field experience at the beginning of each semester. A regular visit to the training site is performed to assure the perfect training process. A feedback from the students and a regular report from the field supervisor is collected and analyzed for improvement. The most important plan for improvement will be through developing a new field training evaluation template filled by students, supervisors and staff members to cover all issues related to the field training and identifying the main point need action to be taken.

Provide an evaluation report of field experience activities including evaluation of processes for planning and managing them. Refer to evidence and provide a report including a list of strengths, recommendations for improvement, and priorities for action.

During the field training course, teaching staff of the program consult the students through periodic on site visits. In addition, on site supervisors are responsible for guiding the students during the training course. After completing cooperative training, students are required to submit reports and present seminars about their acquired experiences and difficulties that they might have faced. In details, the department head, Prof. Ahmad Alhadairy taking charge of announcing, managing, running and reporting results of student's enrolment and attendance the course. On the other hand, the field training coordinator, Mr. Abdualla Al-Mulhim, is the person in-charge of assessing students during the training. The assessment process is made through group discussion, assignment and presentations. Mr. Abdualla Al-Mulhim is also a member in the committee specialized for field training outcomes assessment in the faculty, and responsible of conducting the survey and reporting to department head. The survey outcomes are then discussed analysed and concluded by department council. The results and conclusion then pass through to the Faculty Council and Assessment Committee for further analysis and considerations.

Strengths:

1- The field and cooperative training equivalent to 12 credit hours that encourage the student to acquire learning skills and perform well.

2- Both the faculty member and the on-site supervisors are involved in the evaluation of the training performance.

3- The cooperative training course serves as a pre-job acquisition for the graduating students.

Recommendations for improvements:

1- Trainee students should be treated like an employee to avail of some company benefits.

2- Regulations on full completion of courses before students are allowed to take the training course.

Priorities for improvements:

1. More training agreements are needed to be made between the department and training agencies and sectors.

Subsection 4.10 Partnership Arrangements With Other Institutions (it these exist) (Overall Rating NA Stars)

The Partnership Arrangements are not applied at program level. It is rather applied at institution al level. There are many partnerships and twining program in education are placed and developed at institutional level. The educational cooperation is clear known between KSU and largest academic institution of the world. An example of such cooperation is the twining educational program with British universities, -Yale University- and United states university, - University of Wisconsin-Madison-. Another Cooperation educational program (Twinning Program) between King Saud University and the prestigious Pantheon-Sorbonne University was developed. Besides many International Twinning Program; Kookmin University, Seoul National University and top Australian universities.

If partnerships have been established with other institutions to assist with the planning and or delivery of the program, *describe what is done* through those partnerships and explain what has been done to evaluate the effectiveness of those activities.

Not Applicable

Evaluation of partnership arrangements (if any). Refer to evidence and ***provide a report*** including a list of strengths, recommendations for improvement, and priorities for action.

Not Applicable

Choose **ONE OR MORE** KPIs that best supports that the program meets this standard. Each KPI should use a separate KPI table. Insert the KPI in the table below, add the actual KPI benchmark with the other benchmarks, and provide an analytical interpretation that describes the outcome (most benchmarks are numerical and others may be descriptions that verify quality using a rubric).

KPI:	
Target Benchmark	
Actual Benchmark	
Internal Benchmark	
External Benchmark	

Standard 5. Student Administration and Support Services (Overall Rating: 4.65)

Admission processes must be efficient, fair, and responsive to the needs of students entering the program. Clear information about program requirements and criteria for admission and program completion must be readily available for prospective students and when required at later stages during the program. Mechanisms for student appeals and dispute resolution must be clearly described, made known, and fairly administered. Career advice must be provided in relation to occupations related to the fields of study dealt with in the program.

Much of the responsibility for this standard may be institutional rather than program administration. However, the program is responsible to assessing the quality of this standard. In this standard analysis should be made not only on what is done within the department or program, but also on how the services provided elsewhere in the institution affect the quality of the program and the learning outcomes of students.

Provide an explanatory report about the student administration arrangements and support services for each of the following sub-standards:

5.1 Student Admissions

- The process of student admission is totally straightforward and well-ordered step-by-step procedure. All the required information associated with this process (admission, registration, academic system, academic calendar, student services, and others) is available through the Deanship of Admission and Registration (DAR) web site, which is also, provides printable brochures showing all issues related to admission and registration. In addition, the College of Food and Agriculture Sciences, has its own registration office that facilitates the process of admission and registration and acts as a mediator between the student and the Deanship of Admission and Registration.

DAR Web Site:

http://www.ksu.edu.sa/Deanships/Registrationandadmission/Pages/default.aspx

5.2 Student Records

- All the academic records of the student are kept by the Deanship of Admission and Registration. The student has an access to view and follow his academic performance online through the

Online Academic Portal (OAP). The registration office of the College which is supervised by the Vice-Dean of the Academic Affairs, provides the departments with all information on registration, progress and achievements of students.

OAP Web Site:

https://edugate.ksu.edu.sa/ksu/ui/home.faces

5.3 Student Management

King Saud University has its own distinct and transparent regulations and policies for student management, based on rights, duties and responsibilities rule. The relationship between the student and the institution is projected in a clear, fair and consistent process. This relationship is well presented through the Deanship of Students Affairs web site.

Deanship of Students Affairs Web Site:

http://ksu.edu.sa/Deanships/StudentAffairs/Pages/default.aspx

5.4 Student Advising and Counselling Services

The department has an independent Academic Counselling Committee that serves students in terms of advising and counselling. The Department Council through the Academic counselling Committee approves the appointment of one of the staff members as an academic advisor for each student throughout the study period. The academic advisor is responsible for providing students with advices related to their academic performance or even obstacles that impede their social life, which may spread shadows over their academic life and reflected on their progress. Over and above, King Saud University provides students with variety of services that include medical, accommodation, sporting and counselling services. In addition, each student has a monthly salary provided by the institution.

Describe the processes used to evaluate performance in relation to this standard.

Opinion polls of students and faculty staff members are regularly performed at the end of each school term through feedback questionnaires for evaluating administration and support services. Results obtained from these feedbacks are subjected to comprehensive revision for highlighting points of strength as well as points of weakness. Another channel of evaluation is the direct feedback of students through an online portal for complaints and suggestions. Moreover,

evaluation of courses and associated learning services and faculty staff members are performed by students.

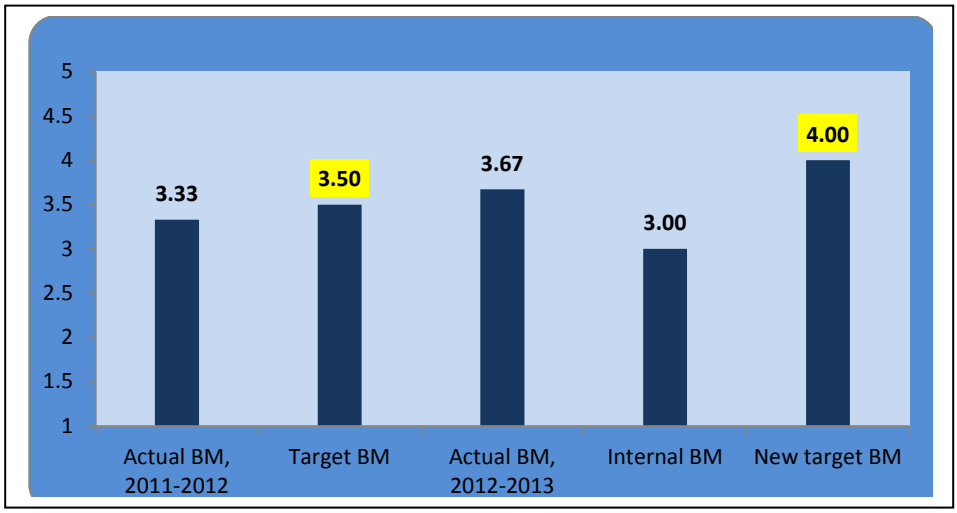
Student Complaints Web Site:

https://eservices.ksu.edu.sa/StudentsComplaints/

Choose **ONE OR MORE** KPIs that best supports that the program meets this standard. Each KPI should use a separate KPI table. Insert the KPI in the table below, add the actual KPI benchmark with the other benchmarks, and provide an analytical interpretation that describes the outcome (most benchmarks are numerical and others may be descriptions that verify quality using a rubric).

KPI (10): Student evaluation of academic and career counselling. (Average rating on the adequacy of academic and career counselling on a five point scale in an annual survey of final year students)	
Target Benchmark	3.50
Actual Benchmark	3.67
Internal Benchmark	3.00
External Benchmark	NA
New Target Benchmark	4.00

Analysis: The actual benchmark exceeds both the target and internal benchmarks. This comes as a result of hard and continuous efforts paid by the department and its employees. Strong friendly ties were built between the students and administrators, academic staff members and workers. As a result, this ends in a stable academic process of fruitful outcomes. Still the program is looking forward to hit a new target benchmark that shortens the distance to the ultimate target.



Student overall evaluation of academic and career counselling on a five point scale, in the last two academic years (2011-2012 and 2012-2013)

Evaluation of student administration arrangements and support services for students in the program. Refer to evidence about the standard and sub-standards within it and ***provide a report*** including a list of strengths, recommendations for improvement, and priorities for action.

Report:

Based on the previously mentioned points regarding this standard, it is clearly projected that the program has the capability to meet the requirements for efficient and fair processes on student administration and support services. Overall, student admission, student advising and counselling are efficient and fair, in addition to well established mechanisms for student appeals and dispute resolution. The following are the strengths, recommendations and priorities for action.

Strengths:

1- Initiation of an independent Academic Counselling Committee inside the department.

2- Appointment of an academic advisor to each student.

3- Existence of top quality academic, financial, and social services.

4- Existence of a Registration Office inside the college.

5- Establishment of the Student Rights Protection Unit.

6- Availability of electronic services on and off campus.

Recommendations for Improvement:

1- Raising awareness of students about rights, duties and responsibilities.

2- Continuous evaluation, revision and modification of the academic guidance system.

3- Encouraging teaching staff to stick to their office hours, and students to contact their academic advisors regularly.

Priorities for Action:

1- Boosting the academic counselling towards improving the academic performance of students with lower grades (GPA less than the threshold of passing - 2.5 out of 5).

2- Developing follow-up system based on smart telecommunications to save belated students from being dismissed.

3- Setting a transparent and fair mechanism for tracking complains of students to ensure an adequate and efficient counselling and guidance.

Standard 6. Learning Resources (Overall Rating: 4.16)

Learning resource materials and associated services must be adequate for the requirements of the program and the courses offered within it and accessible when required for students in the program. Information about requirements must be made available by teaching staff in sufficient time for necessary provisions to be made for resources required, and staff and students must be involved in evaluations of what is provided. Specific requirements for reference material and on-line data sources and for computer terminals and assistance in using this equipment will vary according to the nature of the program and the approach to teaching.

Provide an explanatory report about processes for provision of learning resources for the program, including opportunities provided for teaching staff or program administrators to arrange for necessary resources to be made available, information about services provided and times available, equivalence of provisions for different sections, etc. Complete this section using the following sub-standards:

6.1 Planning and Evaluation

King Saud University always seeks excellence for programs and students. One of the plans adopted by the institution is to encourage teaching staff to offer learning resources through writing and translation of text- and reference books. It initiates the Permanent Committee for Scientific Publishing under supervision of the Vice Rector for Graduate Studies and Scientific Research. Rewards are provided for active authors and translators. The evaluation of activities associated to learning resources is maintained through feedback from students and faculty members. This is performed as part of the course evaluation survey, where questioners are distributed to evaluate the adequacy of library services. Also, faculty members evaluate the availability of learning resources that fulfil course requirements as stated in the course specification.

Based on the feedbacks from students and staff members regarding learning resources, the head of the department used to prepare a list containing the most recent and up to date required reference books. This step comes as a preparation for the next academic year. The list is directed to the head of the college to be forwarded later to the Director of the Central Library. In addition, and as part of the ongoing evaluation and planning processes at the level of the program, the Department Council organises regular meetings at the end of each academic year that devoted entirely to evaluate the last academic terms and discuss the preparation steps for the next academic year. The recommendations drawn based on the pros and cons are considered as a work plan for the forthcoming year. Moreover, one of the tasks of the Academic Accreditation and Quality Control Committee inside the Department is to revise the availability, adequacy and accessibility of the learning resources as well as other supportive materials.

6.2 Organization

The learning process in King Saud University is well organized and the educational system is set in a very orderly way, where the student is the core of the learning process. Learning materials and services are provided to students through different channels. The relevant Deanships and their associated units facilitate the inflow of learning materials and services unabatedly. Many systems are involved in this process as Online Academic Portal, Learning Management System (LMS), and E-Library.

The Online Academic Portal (OAP) is a system that provides variety of academic services for students as well as academic staff. These include the academic calendar, available courses,

contact hours, and information about the faculty member. On the other hand, the learning Management System (LMS) is an electronic program designed to assist in managing the education process, beside following up and evaluating the whole system. The program is accessible for both students and teaching staff. It provides an opportunity for the academic staff to upload their courses and learning resources in all types of format; audio, visual, printable etc. The teaching staff members have the ability to manage these resources all the time. The LMS also offers a Data Cloud service for storing up to (1,024 GM) to be used by students as well as staff. In case of technical difficulties, the system affords a direct and instant technical support through a live chat, hot lines or e-mails. The E-Library is attainable through the main home page of the institution or the LMS site. The E-Library or the Saudi Digital Library (SDL) offers multi-sources of information and learning resources for students and teaching staff. These include Arabic as same as foreign data bases, electronic books and references, and university theses.

Support for Users

Learning resource materials and associated services are provided for students and teaching staff day and night throughout the course of study and even during summer vacation. To maintain such activities, technical support for beneficiaries is needed all the time. King Saud University provides multi-support products and services in this direction through the Deanships of Skills Development, E-Transactions and Communication and E-Learning and Distance Learning. The support services include training courses, IT technical support, provision of authorized software programs, and maintenance of computers and internet terminals.

6.3 Resources and Facilities

King Saud University offers students a variety of learning resources including traditional libraries as well as digital and virtual ones. The Central Library (Prince Salman Central Library) merges between both types of libraries. In addition to traditional means like card catalogues, microfiche readers, and ordinary books borrowing, the library now also offers an online public access catalogue (OPAC), public PCs equipped with CD-ROM drives, scanners, or public terminals connected to the Internet. The institution also offers an online Scientific Repository that contains the digital collection of KSU's academic and creative outputs. It collects, preserves, and archives all research and scholarly articles including theses, conference papers, reports, working papers,

and class notes. Users are allowed to access these resources online with the ability to download and print documents. The institution also offers through its libraries; periodicals, magazines, e-journals, e-books and online databases. The college provides computer labs for students to use with access to the internet. Moreover, the Deanship of Student Affairs has established a bookstore where students are able to purchase text and reference books at discounted prices.

KSU Library Web Site:

http://library.ksu.edu.sa/

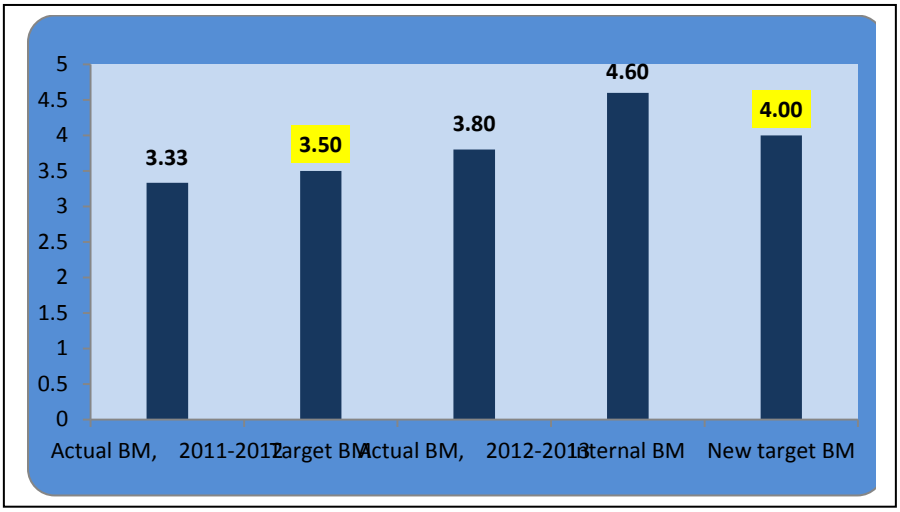
Describe the processes followed to investigate this standard and summarize the evidence obtained.

Students and faculty staff members are administered with surveys for evaluating learning resources on a regular basis. Plans for improvement are inspired from feedbacks of these questionnaires.

Choose **ONE OR MORE** KPIs that best supports that the program meets this standard. Each KPI should use a separate KPI table. Insert the KPI in the table below, add the actual KPI benchmark with the other benchmarks, and provide an analytical interpretation that describes the outcome (most benchmarks are numerical and others may be descriptions that verify quality using a rubric).

KPI (11): Student evaluation of library services. (Average rating on adequacy of library services on a five point scale in an annual survey of final year students).	
Target Benchmark	3.50
Actual Benchmark	3. 80
Internal Benchmark	4.60
External Benchmark	NA
New Target Benchmark	4
Analysis: The target and internal benchmarks are actually surpassed. Still more efforts have to be exerted for attaining significant improvement towards achieving the new target benchmark. In this regard, the department seeks to establish a departmental library that complements the	

deficiency in reference books and other learning materials. In addition, the program proposes initiation of an audio-visual library inside the department to offer supporting learning materials especially for practical sessions (Virtual Labs).



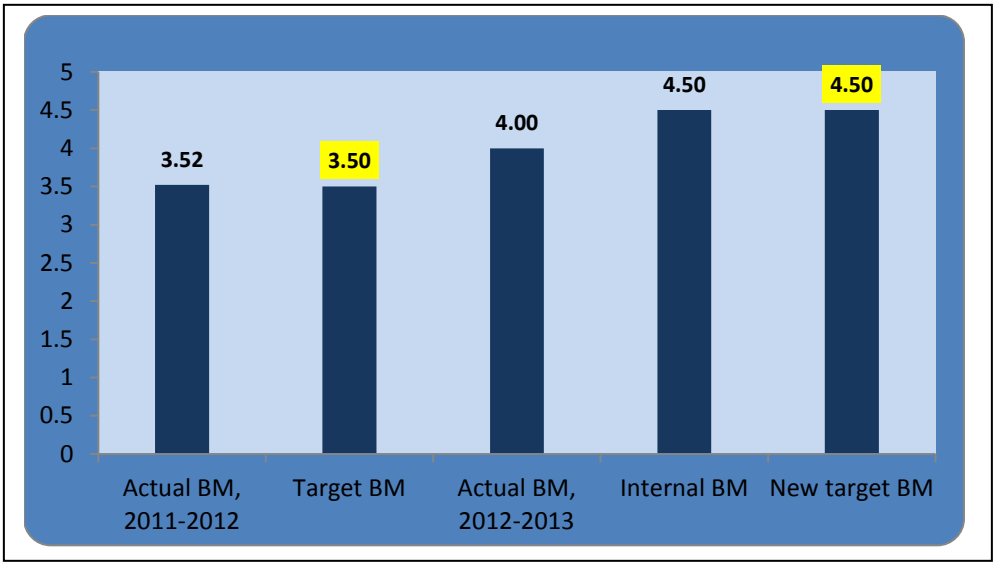
Student overall evaluation of library services on a five point scale, in the last two academic years (2011-2012 &2012-2013)

KPI (12): Average overall rating of adequacy of facilities and equipment in a survey of teaching staff.

Target Benchmark	3.50
Actual Benchmark	4.00
Internal Benchmark	4.50
External Benchmark	NA
New Target Benchmark	4.50

Analysis: The target benchmark is met and even exceeded by the actual benchmark. But still the achievement is behind the internal benchmark (Department of plant protection). Little efforts are needed to reach both, the internal and new target benchmarks. In light of the feedbacks of teaching staff, the program adopts a clear plan of action for improving studying and working conditions. Actions involved requesting all facilities and equipment that are

deficient to be ready for use for the next academic year. In addition, all equipment and facilities are checked regularly for readiness and maintenance is performed when need arises.



Average overall rating of adequacy of facilities and equipment on a five point scale, in the last two academic years (2011-2012 &2012-2013)

Evaluation of learning resources for students in the program. Refer to evidence about the standard and sub-standards within it and ***provide a report*** including a list of strengths, recommendations for improvement, and priorities for action.

Report:

It's well presented that the program is managed to meet the requirements that leading to outstanding performance. All the indicators associated to this standard are in favor of the program performance indicating the successful of its efforts to achieve the targets.

It's well presented that the program is managed to meet the requirements that leading to outstanding performance. The availability and adequacy of the requirements and other facilities is a good indicator for the successful. All the related services to this standard are in favour of the program performance indicating the successful of its efforts to achieve the targets. Still we are seeking to hit new target that means more efforts, determination and insistence are needed for the next round.

Strengths:

1. Availability of multi-sources for learning materials and supportive services.

2. There is sufficient budget to develop the learning resources and provide for efficient services.

3. Availability and ease of accessibility of a variety of learning resources.

4. Keeping up to date with the latest developments in telecommunication and information technologies aiming at conveying learning messages in an effective way.

Recommendations for improvement:

1- Keeping pace with updated advances in e-learning and education management services.

2- Encouraging faculty members for writing and translation of text- and reference books.

3- Directing faculty members and students towards dealing with the available advanced technologies of the learning process.

Priorities for action:

1. Accelerating establishment of a specialized library for the department.

2. Sending notifications regularly to the libraries with the new publications and updated versions of text-and reference books related to the field.

3. Establishment of a satellite library for the benefit of the faculty members and students.

7**. Facilities and Equipment (Overall Rating 3.84)**

Adequate facilities and equipment must be available for the teaching and learning requirements of the program. Use of facilities and equipment should be monitored and regular assessments of adequacy made through consultations with teaching and other staff and students.

Much of the responsibility for this standard may be institutional rather than program administration. However, the program is responsible to assessing the quality of this standard. In this standard analysis should be made on matters that impact on the quality of delivery of the program. These matters would include, for example, adequacy of classroom and laboratory facilities, availability and maintenance of equipment, appropriateness for the program of scheduling arrangements, and availability, maintenance, and technical support for IT equipment in meeting program needs.

Provide an explanatory report about arrangements for provision of facilities and equipment for the following sub-standards:

7.1 Policy and Planning

The Department of Animal Production is responsible for the provision of adequate facilities and

equipment (such as classrooms, laboratories, all materials and apparatus, and experimental farm), which supports the academic requirements for obtaining high quality of teaching and research.

The substantial facilities in the Department of Animal Production consist of ten laboratories as shown below. Each Lab is well equipped with most/ all required, up-to-date, equipment and apparatus, through which the goal of the program can be achieved. In addition, **t**he department has an animal and poultry experimental farm located in Al-Ammariah Province, which is faraway about 15 kms. from the university campus. There are different breeds of sheep, goats, camels and poultry.

7.2 Quality and Adequacy of Facilities and Equipment

The Department Laboratories are:

1. Animal Nutrition Teaching Laboratory
2. Animal Nutrition Research Laboratory
3. Poultry Nutrition Laboratory
4. Poultry Breeding Laboratory
5. Animal Genetics and Biotechnology Research Laboratory
6. Meat Production and Quality Laboratory
7. Assisted Reproductive Technology Research Laboratory
8. Environmental Physiology Laboratory
9. Animal Health and Diseases Laboratory
10. Animal and Poultry Health Research Laboratory

1. **Animal Nutrition Teaching Laboratory:**

Animal Nutrition Lab is mainly used in teaching and partly for research purposes. The Lab is equipped with a number of equipment and apparatus, by which can evaluate the nutritive value of animal feeds throughout the chemical analysis and digestibility trials for student teaching and research. These feedstuff determinations include proximate analysis (dry matter, ash, crude protein, crude fat, crude fiber and soluble carbohydrate contents), as well as the determination of NDF, ADF, cellulose and lignin of roughages feeds, and gross energy content. In addition, the lab conducts the digestion trials to estimate the digestibility of feeds throughout the *in vitro* technique. Moreover, the Lab contributes to the community services through analyzing the nutritive value of animal feed samples which requested from Animal Production companies, universities and individuals in the kingdom.

Overall, the objectives of the Lab are: **f**amiliarize and assist the undergraduate students to understand the methodologies of evaluating the nutritive values of animal feeds; training and improve the post graduate student's skills on feed chemical analysis and on feed formulation, as well as assist the

graduate, undergraduate students and staff members in executing their projects and researches.

2. Animal Nutrition Research Laboratory:

Animal Nutrition Research Lab is used mainly in supporting staff members' researches and partly in teaching graduate students. The Lab is equipped with dry oven, protein unit analysis, and an *in vitro* gas production unit to assessment the nutritive value of animal feeds, for research projects and post graduate students experiments. Moreover, blood and tissues samples preparations can be prepared for metabolites analysis. In general, this Lab play an important role in training and improving the graduate student's skills on evaluate the nutritional value of animal feeds and assist the graduate students and staff member in performing and preparing their experimental feed and biological samples.

3. Poultry Nutrition Laboratory:

Poultry Nutrition Lab is used in teaching the practical classes and conducting research in the area of poultry nutrition and production. It consists of two sections, the first section contains poultry caring unit which are used for execute the poultry research experiments and the second section contains teaching and research equipment and apparatus for samples preparation and analysis. The Lab aims to: execute several scientific researches in all areas of poultry science; training the students on feed analysis and on measuring the eggs quality; assist the under and post graduate students in execute their projects in the poultry unit. The Lab also includes a lot of equipment and instruments, which assist in carrying-out all the determination related to poultry nutrition such as proximate analysis, amino acids profile, measuring the egg quality, water purification, haematological tests and also molecular genetics tests.

4. Poultry Breeding Laboratory:

Poultry Breeding Lab is used in teaching and research purposes and consists of two sections, the first contains many modern incubators which are used for fertility and the hatchability of eggs from different strains and under different conditions and the second section contains research equipment, which provides the requirements for teaching and conducting research experiments for all types of poultry. In general, the main objectives of this Lab are: to conduct several scientific researches in different poultry science disciplines; to focus on expanding, genotyping and improving productivity of Baladi chicken; to train the students on incubating and hatching techniques for all types of poultry and

measuring the eggs quality. Moreover, it assists the undergraduate and post-graduate students to execute their projects in the lab and the departmental poultry farm in Al-Ammariah. In addition, a lot of activities to serve the community such as published pamphlets on Baladi chickens, Ostrich, Quail, Duck, Goose and Guinea fowl are provided throughout the year.

5. Animal Genetics and Biotechnology Research Laboratory:

Animal Genetics and Biotechnology Lab was established in last few years in order to facilitate the molecular genetics and advance biotechnology training of students and researchers in the animal production department. The Lab aims to build-up student's capacity about molecular genetics and biotechnology applications in the field of animal production; disseminat the molecular technology knowledge and solutions into the university and community for animal and livestock sector; and to strengthen the research field with advance and updated DNA molecular techniques and procedures. The Lab is equipped with various equipment which serve many students and research projects. The Lab carries-out the following: DNA and RNA extraction and quantification; DNA sequencing and genotyping using most common and popular DNA markers; real-time PCR diagnosis tests; gene detection, expression and genome scan; genetic characterization and biodiversity; performing and testing molecular genetics and biotechnology protocols and procedures and molecular DNA marker selection and breeding.

6. Meat Production and Quality Laboratory:

The Meat Production and Quality Lab is carries-out a lot of activities, which include measurements, tests and parameters gauging on live animals, carcasses and meat samples, both subjectively and objectively. Of these, slaughter and carcass measurements, carcass composition, rib-eye-area, body fat thickness, fat over eye muscle, Carcass composition and Meat colour. Also, Water activity, electrical conductivity, pH, water-holding capacity, myofibril fragmentation index, cooking loss, taste panel, shear force and sarcomere length. In addition, the determination of fatty acids and amino acids profiles are conducted in the Lab.

7. Assisted Reproductive Technology Research Laboratory:

Assisted Reproductive Technology Lab is a general term referring to methods used to achieve pregnancy by artificial or partially artificial means. It is reproductive technology used primarily in infertility treatments in human and genetic improvement in animals. Examples of assisted

reproductive technology include in-vitro fertilization, intracytoplasmic sperm injection, cryopreservation, embryo sexing, embryo bisection and cloning through somatic cell nuclear transfer and intrauterine insemination. The Lab is a state-of-the-art facility that is used to: carry-out research and application in the area of embryo transfer and cloning; in vitro production of cloned embryos of quality animals possessing higher genetic merit; and to produce genetically superior animals after embryo transfer of fertilized or cloned embryos and storage of good quality camel embryos, have acceptable conception rate after embryo transfer. The Lab also serves as the research venue for post graduate students, semen analysis and embryo evaluation.

8. Environmental Physiology Laboratory:

The Environmental Physiology Lab is used to conduct practical classes for undergraduate students, and supports research activities in the field of animal physiology with special emphasis on environmental physiology. The Lab objectives are: improve students' skills in learning the structural and functional relationships of farm animal body organs; introduce students to understand the methods of physiological and behavioural responses to heat stress; expand students understanding of animal's heat insulation and methods of insulation; improve students' skills to learn calculation of animal's heat balance and implementation and analysis of research projects in the field of environmental physiology. The Lab has many materials and apparatus, which assist in carrying out the following measures: climatic measurements and analysis; thermal imaging and analysis; thermoregulatory variables assessment and analysis (core temp, rectal temp, skin temp, respiration, sweating); blood analysis and semen analysis.

9. Animal and Poultry Health Laboratory:

Animal and Poultry Health Lab is mainly used to teach the undergraduate and post-graduate students to diagnose diseases, help the public and farms in disease diagnosis; assists post-graduate students and the staff member of the department to execute their researches, and assist the department farm in the field of animal health and treatment. The Lab includes various instruments and apparatus which aid in diagnosing animal diseases.

10. Animal Health and Diseases Research Laboratory:

The Animal Health and Diseases Research Lab is the main research Lab for hematology and biochemistry and other tests related to animal physiology and animal diseases. The Lab is equipped with a number of equipment and apparatus which can analyze the biological samples for

biochemistry, hematology, clotting factor, immunology and mineral. The Lab serves the post graduate student, staff member and other researchers in the field.

The laboratories, equipment and apparatus:

Lab 1:

- Digital Analytical Balances
- Mills for grinding the various feed samples
- Air drying and under vacuum ovens for dry matter determination
- Muffle furnaces for determination of ash content
- Digestion and Distillation Units for N and CP determination
- Kjeldahl apparatus and Pipette for titration for N determination
- Fat Extraction Apparatus
- Fiber Extraction Apparatus
- Bomb Calorimeter for assays the caloric value of feeds
- Digestibility Unit and pH meter, for in vitro disappearance assay

Lab 2:

- Oven
- Digestion and Distillation Units
- Water bath and syringes for gas production technique

Lab 3:

- HPLC – Agilent 1100
- Microwave Milestone
- Binder oven
- Gallenkamp Oven
- Ultra Turrax IKA T18 basic
- Kjeldahel VELP UDK 149
- Gel documentation UVITEC Cambridge
- pH meter HANNA
- Spectrophotometer Thermo
- Spectrophotometer HACH
- PCR BIO-RAd T100
- Easypure II
- Ultrasonic Cole parmer
- Centrifuge Hermle Z200A
- Centrifuge Heraeus
- Balance ADAM
- Balance AND
- Balance Metller
- Egg force reader
- Egg analyzer

Lab 4:

- Modern incubators and Hatcheries

- Modern equipments to measure egg quality

Lab 5:

- Polymerase chain Reaction (PCR) Apparatus
- Real time PCR
- Gel Documentation System
- Gel Electrophoresis (Different types)
- Genetic Analyser
- Automated DNA extraction Apparatus
- Spectrophotometer
- Micro-Centrifuges and Vortexes tools
- Fridges and Freezers
- Water Bath and Shakers
- Pregnancy Detection (Scan) tools
- ELISA Washer
- Milk Scanner
- Ice Makers
- Somatic cell counting device
- Refrigerated Microcentrifuge
- Plats Refrigerated Centrifuges
- deionized water device
- Dry Oven

Lab 6:

- A Chroma Meter (Konica Minolta, CR-400/Japan) for measuring colour components
- A pH-Meter (Model: pH 211, Hanna Instruments).
- Commercial indoor countertop grills.
- Thermocouple (EcoScan Series, Temp JKT, Eutech Instruments).
- Digital Balances.
- Magnetic Stirrer.
- Upright Deep Freezers.
- Fridges.
- Vacuum Packaging Machine.
- Grinding Machines.

Lab 7:

- Laparoscopy
- Stereo microscope
- Water Purification System
- Pregnancy Scanner
- Ultra-low Freezer
- Micromanipulator
- Fluorescence Microscope
- Microforge
- Different Stereo Microscopes
- Co2 incubators

- Ultrapure water purification system
- Deep Freezers
- Laminar Air Flow Cabinet
- Thermal Cycler
- Analytical balance
- Digital Autoclave
- LN2 Containers

Lab 8:

- Top and fine digital balances
- Cold bench centrifuge (0-40˚ C)
- Water bath (10-95˚ C; shaker)
- Infrared Thermal Camera
- Automated Chemical Analyser
- Spectrophotometer
- Coulter counter
- Hematocrit centrifuge
- Whether station
- Anemometer and black globe
- Vapometer
- Osmometer
- Oven (0-240˚ C)

Lab 9:

- CO2 incubator
- Incubator
- Elisa washer: automatic washing of samples
- Elisa reader: estimate hormones and other metabolites.
- Spectrophotometer: biochemical tests
- Autoclave: To sterilize tools
- Centrifuge
- Shaker
- Oven
- Water bath
- Deep freezer
- pH meter

Lab 10:

- Coulter counter for haematology
- Clotting factor analyser
- Atomic Absorption Spectrophotometery (AAS).
- Flow cytometer
- Elisa reader and washer
- Spectrophotometer
- Florescent microscope
- Freezer (-88)

- Freezer (-20)
- Freeze Drying
- Centrifuge
- pH meter

The above laboratories cover all departmental needs in major branches of animal production (Animal Breeding, physiology, nutrition, health and biotechnology) for the outstanding training of the undergraduate and graduate students to meet the current and futures needs of King Saud University in the area of animal production (Annex 7.0.1).

7.3 Management and Administration of Facilities and Equipment

Each year, the Animal production Department submits the required facilities and equipment for the next academic year to be approved by the dean of the college. The department adheres to the stated policies of the university. **These policies include the following:**

1- The procedures of obtaining equipment including bidding process, acquisition and invoicing procedures and inventory logging and tracking system.

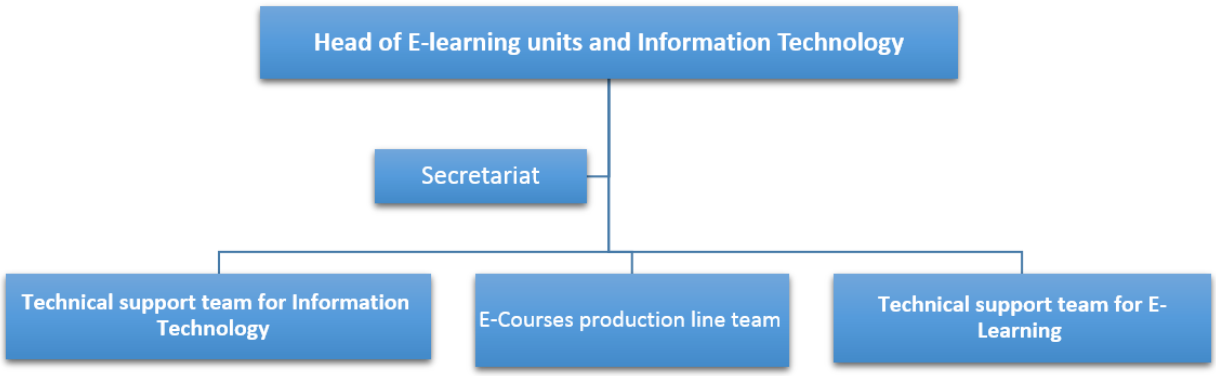
2- Periodic maintenance and repair of facilities and equipment through the university.

3- An integrated system involving other administrative departments for facility planning and budgeting.

7.4 Information Technology

One of the most important units in the College of Food and Agricultural Sciences is the E-learning and information technology that supervise all computer labs and advertising screens as well as supervise the portal of College. In addition, it provides technical support for faculty members to upload their courses on the learning management system. Moreover, the IT personnel assist in managing and solving simple and repetitive technical problems while using smart technologies.

The flow chart of the E-learning and information technology as follow:



The main tasks of this unit are:

1- Coordinating with the Deanship of e-learning and distance learning projects in relation to e-learning at the college.

2- Establish training courses in the field of e-learning and related programs by coordinating with the Deanship of e-learning and distance learning to implement workshops at college.

3- Holding seminars and lectures to help spread the culture of e-learning, and planning and implementation of programs.

4- Continuous assessment of the reality of e-learning in the college community, and participation in the development of standards for assessing the quality of e-courses altogether and follow up their implementation.

5- Coordinating and follow-up training for faculty members at the college on the applications of e-learning.

7- Provide technical support and support services in the field of e-learning for faculty members at the college and academic departments.

8- Direct communication with Maintenance Management deanship.

9- Periodic follow-up on the readiness of the smart classrooms, meeting rooms, advertising screens and information kiosks in the college.

10- Providing technical support for faculty members to upload their courses on the learning management system.

11- Perform other similar tasks assigned to the unit by the Deanship of e-learning and distance learning.

Workshops

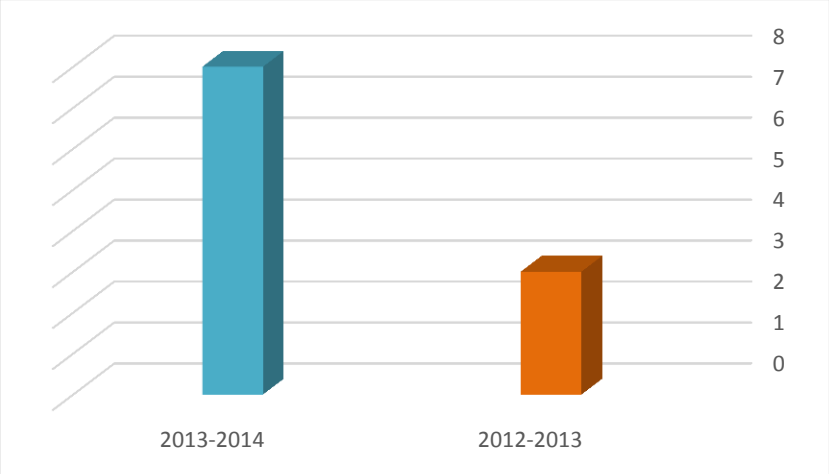
The unit Organizes two workshops (2012-2014) by coordinating with the Deanship of e-learning and distance learning. **The workshops are:**

1. Uploading a file and **Assessing Student and electronic exams Using Learning Management System (Blackboard 9.1).**

The purpose of the learning management system (Blackboard 9.1) workshops is to teach faculty members how to use a learning management system (Blackboard 9.1). The Learning Management System (Blackboard) will be used to follow-up the students' performance and monitor the efficiency of the learning process. The system provides great opportunities for students to interact with their instructors easily and have access the content of their courses anytime anywhere and using a variety of tools.

2. Smart Classroom.

The purpose of the Smart Classroom workshop is to provide faculty members adequate training on how to efficiently use the technology available in the classroom. This includes the use the Smart Podium, control panels, connecting laptop, switching between input sources, using the DVD/VCR combo player, enabling Closed Captioning for audio/video containing CC and other related features of the Smart Classroom.



Number of workshops provided by the The E-learning and information technology during 2012-2014.

The figure above shows a significant increase in the number of workshops during 2013-2014 when compared to academic year 2012-2013. This means the university has a great emphasis on providing teaching staff member with adequate training on how to efficiently use the IT technology available in the classroom.

Describe the processes used to evaluate the quality of provision of facilities and equipment for the program.

1- Students, staff and faculty members questionnaires were used for evaluation purposes (Annex 7.0.1).

2- Meetings and interviews with department committee and head of the department for labs, facilities and equipment evaluation were held regularly.

3. Review of existing policies and regulation related to the standard.

Choose ONE OR MORE KPIs that best supports that the program meets this standard. Each KPI should use a separate KPI table. Insert the KPI in the table below, add the actual KPI benchmark with the other benchmarks, and provide an analytical interpretation that describes the outcome (most benchmarks are numerical and others may be descriptions that verify quality using a rubric).

KPI 17: Average overall rating of adequacy of facilities and equipment in a survey of teaching staff.	
Target Benchmark	3.5
Actual Benchmark	4.0
Internal Benchmark	4.5
External Benchmark	NA
New Target Benchmark	4.5

Evaluation of facilities and equipment for the program. Refer to evidence about the standard and sub-standards within it and ***provide a report*** including a list of strengths, recommendations for improvement, and priorities for action.

The laboratories available at the department cover all required needs in major branches of animal production (Animal Breeding, physiology, nutrition, health and biotechnology) for outstanding training of the undergraduate and graduate students to meet the current and futures needs of King Saud University in the area of animal production. Furthermore, a continuous updating of the laboratory equipment are considered every year through submits the required facilities and equipment for the next academic year to be approved by the dean of the college.

The establishment of the Deanship of E-transactions and Communications provides IT technical support for all area of e learning and an outstanding support and responding to all technical support requests by phone and through a web support system (http://itsupport.ksu.edu.sa).

Strengths:

1. The existence of up-to-date documents and electronic systems for equipment.
2. The presence of educational farm In Al-Ammareiah district improves the quality of student

training and scientific research.

3. The department has four well-equipped teaching and other six research and teaching labs (Annex 7.0.3).
4. The rapid development in IT systems, hardware and wireless network.
5. All lecturer rooms are equipped with smart classrooms and E learning portal to improve teaching quality.
6. Regular maintenance of laboratory equipment is provided by the companies.
7. Very solid training session provided by the company when provide a new equipment.
8. Locally and overseas training courses to laboratory technician to improve the quality and the efficiency of using the equipment.
9. All teaching rooms and laboratories of the department are regulated by the department.

Recommendations for improvement:

1- Improving the maintenance system of the equipment and facilities.

2- Increasing the frequency of training programs for technicians.

3- Emergency exits should be regularly checked.

4- Acquiring the work risk allowance for faculty, staff and technicians.

5- Improvement of the efficiency of safety preparation such as fire fighting facilities and chemical protection areas.

Priorities for actions:

1- Establishing a system of scheduling on the use of laboratory equipment.

2. More emphasis needed in the area of technicians training to improve the different analytical quality through a professional using of the equipment.

Annexes

Annex 7.0.1 Students, staff and faculty evaluation of the adequacy of available facilities and equipment
Annex 7.0.2 A list of labs, facilities and equipment available at the department.

Standard 8. Financial Planning and Management (**Overall Rating 4.25**)

Financial resources must be sufficient for the effective delivery of the program. Program requirements must be made known sufficiently far in advance to be considered in institutional budgeting. Budgetary processes should allow for long term planning over at least a three year period. Sufficient flexibility must be provided for effective management and responses to unexpected events and this flexibility must be combined with appropriate accountability and reporting mechanisms.

(Much of the responsibility for activities relating to this standard rests with institutional rather than program administration. However regardless of who is responsible the adequacy of resources and financial planning and management can affect the quality of the program. In this section the effect of financial planning and management arrangements on the program should be considered in this section, as well as matters that are carried out by program administrators themselves.)

Describe the processes used to investigate this standard and the evidence obtained about adequacy for the program.

The university is totally in charge of all financial support. Financial support is dealt with according to rules and regulations of the Ministry of Finance. The university strictly adheres to policies and governmental rules in all aspects of accounting processes to ensure quality of financial spending. These polices include:

1. Well organized financial budgeting along with strict monitoring and follow up procedure.
2. Consistent processes of spending including systems for invoice follow up through a well-developed accounting system.
3. Strict accounting for all confirmed budget items.

Explanatory note about financial planning arrangements for the program and the extent of financial responsibility for program managers.

1. The committee has identified and arranged indicators related to this standard.
2. The committee has reviewed the 2010 SSR report.
3. The committee has observed the documents related to financial planning and management.

1.1 . Financial planning and budget preparation

According to the executive rules for Financial Affairs (Annex 8.0.1), the University revenues consist of the following:

1. The budget allocated from the government.
2. Funds, grants and endowments.
3. Return on assets owned by the University.
4. Research grants, contractual and income from the academic services offered by the University.

The largest source of financial support comes from governmental budget. According to financial by-laws of the university, the budget is spent in four categories:

1. Salaries, wages and allowances.
2. Operating expenses.
3. Contracts for cleaning, maintenance and security programs.
4. Projects related to infrastructures.

The university allocates an overall budget to the colleges under items 1, 3 and 4, which is in turn spent as required among departments and units. Based on recommendation given on previous SSR, the university has offered independence to colleges in some decision-making under item 2 related to laboratory equipment, chemicals, office furniture, teaching and raw materials that required for maintenance and spare parts. Departments and other college units must provide a detailed explanation of anticipated and maintenance costs of any proposed project. University Department of Finance evaluates and analyses costs and benefits for reliability and amends or approve it. Regarding the departmental budget and finance, the university allocate a budget to the college and the department receives and operating upon the request from the head of the department. The head of the department don't participate in preparation of the annual budget for the department. Generally, the required operating funds for the department is completely provided by the college.

8.2 **Financial Management**

Financial delegations and authorizations at the university level are clearly specified in articles governing the financial affairs at universities (see the following link).

http://ksu.edu.sa/sites/KSUArabic/Mngmnt/RectorAndDeputies/DeputyOfuniversity/Pages/home1.aspx

http://hec.mohe.gov.sa/BOOKvIEW.aspx

Evaluation of financial planning and management for the program. Refer to evidence about the standard and subsections within it and provide a report including a summary of strengths, areas

requiring improvement, and priorities for action.

All the issues related to the financial and management of the college and the program is totally operated by the KSU. Financial support is dealt with according to rules and regulations of the Ministry of Finance. The department of animal production obtain operating funds from the college and no direct connection with the university.

Strengths:

1. The ability to generate income from non-governmental sources by establishing development programs, such as research chairs, endowments, donations, and financed research and projects.
2. Special financial support is provided by the Saudi Arabia government.
3. The University financial affairs executive rules are comprehensive and written in clear and practical terms.
4. The University financial affairs organizational structure ensures a clear division of work.

Recommendations for improvement:

1. Budgeting system can be improved effectively by giving the opportunity to the departments to share in planning their own budgets. Such a change requires a restructuring of the current budgeting system at the university.

Priorities for actions:

1. Establishment of financial references at the college level.
2. Restructuring of the planning system and financial management at King Saud University in order to give some financial independence for colleges to enable planning and submission of their annual operating budgets.

Annexes

Annex 8.0.1 The executive rules for financial affairs

Standard 9. **Employment Processes (Overall Rating 4.02)**

Teaching and other staff must have the knowledge and experience needed for their particular teaching or other responsibilities and their qualifications and experience must be verified before appointment. New teaching staff must be thoroughly briefed about the program and their teaching responsibilities before they begin. Performance of all teaching and other staff must be periodically evaluated, with outstanding performance recognized and support provided for professional development and improvement in teaching skills.

Much of the responsibility for this standard may be institutional rather than program administration. However, the program is responsible to assessing the quality of this standard. In this standard analysis should be made on employment matters that affect the quality of the program. These matters include the appointment of appropriately qualified faculty, their participation in relevant professional development and scholarly activities, and their preparation for participation in the program.

The majority of faculty and staff employment processes are centrally managed by the Deanship of Faculty and Personnel Affairs. The University has made noticeable progress in both quantity and quality of staff. The university has launched several programs related to human resources. These include attraction and recruitment of distinguished faculty members. It also provides opportunities for staff professional development through regular training programs by the DSD. In addition, faculty members are encouraged to attend international conferences or training workshops.

Generally, consistent with the mission of King Saud University, the criteria for hiring of faculty must meet the highest possible standards of excellence. The following are the most important principles of recruitment in KSU:

1. Recruit and hire the most highly qualified candidates who have the potential to further the vision, mission, and goals of the University.
2. Recruit and hire faculty who will bring diversity to the University in terms of experience, qualifications, universities, and schools of thought.
3. Look for, whenever possible, to recruit and hire Saudis faculty member who will reinforce Saudi's governmental plans for sustained development and self-reliance.
4. Recruit and hire faculty who are proficient in the usage of Information Technology and English language skills.
5. Recruit and hire faculty with excellent teaching practices.
6. Priority in recruitment is given to candidates who can teach a wide range of courses in each academic program.

Description of the process of preparing the report on this standard

1. Information has been collected through reviewing the university documents, employment policies and procedures, council minutes, faculty staff member records and meetings with Department Committee for Recruitments
2. Information provided by the head of the department regarding the weakness of the recruitment and employment of outstanding faculty members.
3. Feedback from senior students before and after graduation.

9.1 Recruitment

The Department participates in recruitment processes which deal with the employment of Saudi, non-Saudi and non-academic staff. The department committee for recruitment examines documents, make interviews and recommend candidate/s for appointment. In the case of Saudi Teaching Assistants, the Department council approves recommendations and reports to the College Committee of Teaching Assistants and Lecturers headed by the Vice Dean for Academic Affairs. All positions are publicly advertised at local newspapers and University website. The advertisements include job title and means to apply. Detailed description of job, indicators and process of performance, and evaluations are not consistently included in the advertisements. However, they can be looked up in the regulations of the Ministry of Higher Education or the regulations of the Ministry of Civil Service on the University website (http://hec.mohe.gov.sa/BOOKvIEW.aspx). Final decisions at the faculty level appointments are made by the Scientific Council.

The head of the department is responsible of the following:

1. Preparing and revising accurate position descriptions which describe fully and accurately the duties, responsibilities and requirements of the role for which recruitment is to take place.

2. Establishing a department-level Recruitment Search Committee. The head of Department must provide guidance so that the Recruitment Search Committee will take the appropriate steps necessary to locate and solicit application from the best possible pool of candidates for the department and discipline.

3. Preparing required forms, secure necessary approvals and forward forms through appropriate channels as specified in these procedures.

4. Insuring that job selection standards and criteria such as education, experience, skills, abilities, and competencies to be used to screen applicants and aid in selection processes are job related and are

applied consistently to all applicants under consideration;

- There are specialized unit and a number of programs to recruit internationally distinguished scholars and researchers. Each year, the new faculty members are required to attend orientation programs that are organised by the Deanship of Skills Development.

9.2 Personal and Career Development

The Deanship of Skills Development organizes training courses targeted to a wide-range of skills. These include personal, technical and professional skills. The University has established support unit for lecturers and teaching assistants. This unit is responsible for facilitating the admission and the other requirements to join the international universities. Evaluation of performance is conducted through clear criteria which are posted on the website of the Deanship of Faculty and Personnel affairs (http://sudl.ksu.edu.sa).

Describe the processes used to consider quality of performance in relation to this standard.

The evaluation of performance is annually done by the department head. The purpose of this evaluation is to inform the employee about their weak points that need to be improved. Employees have the right to review and sign their performance evaluation report. In the case of dissatisfaction, they have the right for petition (Annex 9.2.1). In order to enhance the performance at the academic and administrative levels, the university has launched several reward programs such excellence in teaching and publication in ISI journals.

Evaluation of employment processes for the program. Refer to evidence about the standard and sub-standards within it and provide a report including a list of strengths, recommendations for improvement, and priorities for action.

According to the process and considerations for employment, the university has made noticeable progress in both quantity and quality of the staff members. Generally, consistent with the mission of King Saud University, the criteria for hiring of faculty must meet the highest possible standards of excellence. The university has launched several programs related to human resources. These include attraction and recruitment of distinguished faculty members. So, King Saud University meet the requirements of this standard through hiring high quality staff members who have outstanding potential to support the vision, mission, and goals of the University.

Strengths:

1. New faculty members are required to attend orientation programs and many other training courses conducted by the Deanship of Skills Development (DSD).
2. Newly appointed teaching assistants are provided with scholarships for studying abroad.
3. Very well developed employment regulations and procedures are followed.
4. Recruitment policies are clear and well documented.
5. Rewarding and recognition of outstanding staff member and administrative is followed as shown in the following website: http://pubaward.ksu.edu.sa/.

Recommendations for Improvement:

1. There is a need for plans to overcome some restrictions imposed by the government employment policies.

Priorities of Actions:

1. The short-period training programs of non-academic employees should be considered in their promotion process.
2. Highly qualified technicians should be attracted.
3. Attractive financial package (salaries, medical insurance, children education and other benefits) for recruitment of outstanding staff members must be offered.

Annexes

Annex 9.2.1 Performance evaluation form of employees

10. Research (Overall Rating 4.00)

All staff teaching higher education programs must be involved in sufficient appropriate scholarly activities to ensure they remain up to date with developments in their field, and those developments should be reflected in their teaching. Staff teaching in post graduate programs or supervising higher degree research students must be actively involved in research in their field. Adequate facilities and equipment must be available to support the research activities of teaching staff and post graduate students to meet these requirements in areas relevant to the program. Staff research contributions must be recognized and reflected in evaluation and promotion criteria.

Expectations for research vary according to the mission of the institution and the level of the program (e.g. college or university, undergraduate or postgraduate program). In this standard an analysis should be made on the extent and quality of research activities of faculty teaching in the program, and on how

their research and other current research in the field is reflected in teaching.

Provide an explanatory report about nature and extent of research activities associated with the program or carried out by staff teaching in it for the following sub-standards:

10.1 Teaching Staff and Student Involvement in Research

Graduate students are largely involved in the funded projects to acquire skills in research and publication. They are encouraged to present and publish the output of their research in the regional conferences and ISI journals, particularly those of Impact Factor. The table below shows the published papers in refereed journals during the last four years and contribution of graduate student in these publications.

Academic year	Number of published papers/ staff member	Number of published papers by graduate students	Percentage
2010	40	4	10.0
2011	34	4	11.8
2012	41	12	29.3
2013	50	13	26.0

The involvement of graduate students in the research and publication improved and the percentages increased from 10.0% during 2010 to reach 26% during 2013. The target benchmark for the department is about 25% which was achieved and the department expects the percentage will increase in the coming years since graduate students are involved in most of the funded projects. These funded projects have also increased significantly.

Research Facilities and Equipment

Faculty members of the department have obtained many funded projects from the National Plan for Science and Technology of King Abdul-Aziz City for Science and Technology and other funding organizations over the last four years. The department includes many unique features that have positive impact on education and research. In this respect, there are several research groups with highly qualified members and equipped labs in the following fields:

- Animal nutrition
- Animal breeding and genetics
- Animal physiology and environmental stress.
- Animal health and diseases

The substantial facilities in the Department of Animal Production consist of ten laboratories as shown below. Each Lab is well equipped with most/ all required, up to date, equipment and apparatus, through which the goal of the program can be achieved (Standard 8.). In addition, **t**he department has an animal

and poultry experimental farm located in Al-Ammariah Province, which is faraway about 15 km from university campus. There are different breeds of sheep, goats, camels and poultry.

The Department Laboratories are:

1. Animal Nutrition Teaching Laboratory
2. Animal Nutrition Research Laboratory
3. Poultry Nutrition Laboratory
4. Poultry Breeding Laboratory
5. Animal Genetics and Biotechnology Research Laboratory
6. Meat Production and Quality Laboratory
7. Assisted Reproductive Technology Research Laboratory
8. Environmental Physiology Laboratory
9. Animal Health and Diseases Laboratory
10. Animal and Poultry Health Research Laboratory

The research projects serve teaching processes by providing opportunities for students' training. In addition, some faculty members serve as consultants for different governmental sectors. Their consultancy services enlighten students with the community problems to enhance their critical thinking.

Describe the processes used to evaluate performance in relation to this standard:

1. Review all available documents regarding the research activities of the department staff members.

2. Designing several tables and questionnaire forms by the department Accreditation Steering Committee to collect information about publications and research funds by different funding agencies.

3. All information collected were statistically analyzed, summarized and presented in different forms such as tables and graphs.

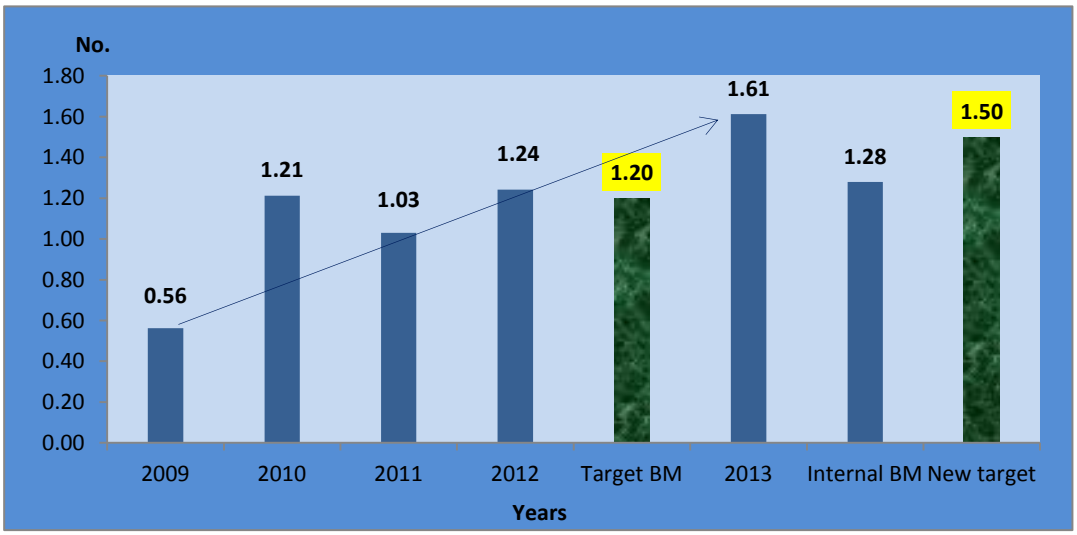
Choose ONE OR MORE KPIs that best supports that the program meets this standard. Each KPI should use a separate KPI table. Insert the KPI in the table below, add the actual KPI benchmark with the other benchmarks, and provide an analytical interpretation that describes the outcome (most benchmarks are numerical and others may be descriptions that verify quality using a rubric).

KPI 22: Number of refereed publications in the previous year per full time equivalent member of teaching staff.	
Target Benchmark	1
Actual Benchmark	1.61
Internal Benchmark	1.28

External Benchmark	NA
New Target Benchmark	1.5

Analysis: The publication number has exceeded the target, and better than internal benchmark, Department of Plant Protection, and the previous years (2009-2012). The department has to maintain this level of publication or even increase it since many research projects are funded this academic year (2013-2014; approximately 8 million SR). So, the quality of research will be improved and consequently scientific manuscript can easily be published in ISI refereed journals with high impact factors.

The following chart provide the information regarding the publications and compared with previous year and benchmarks:

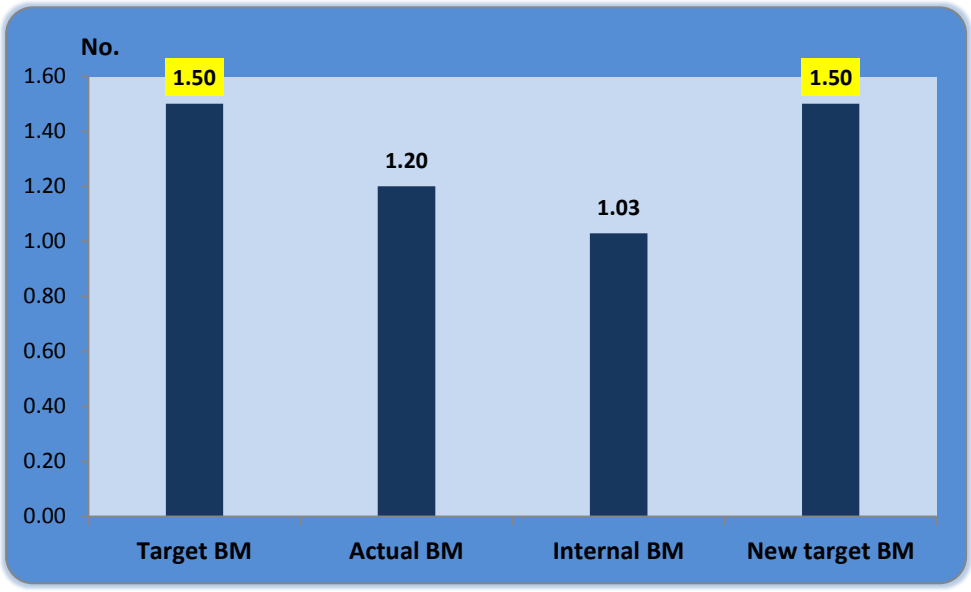


KPI 23: Number of citations in refereed journals in the previous year per full time equivalent teaching staff.	
Target Benchmark	1.5
Actual Benchmark	1.2
Internal Benchmark	1.03

External Benchmark	NA
New Target Benchmark	1.5

Analysis: The number of citations fails to achieve the target, although it is better compared to the internal benchmark, Department of Plant Protection. The department has to improve publication quality to fulfil the target benchmark and the new one. Many funding agencies required to publish the scientific finding in an international ISI journal with an acceptable impact factors which may lead to improve the citations rate.

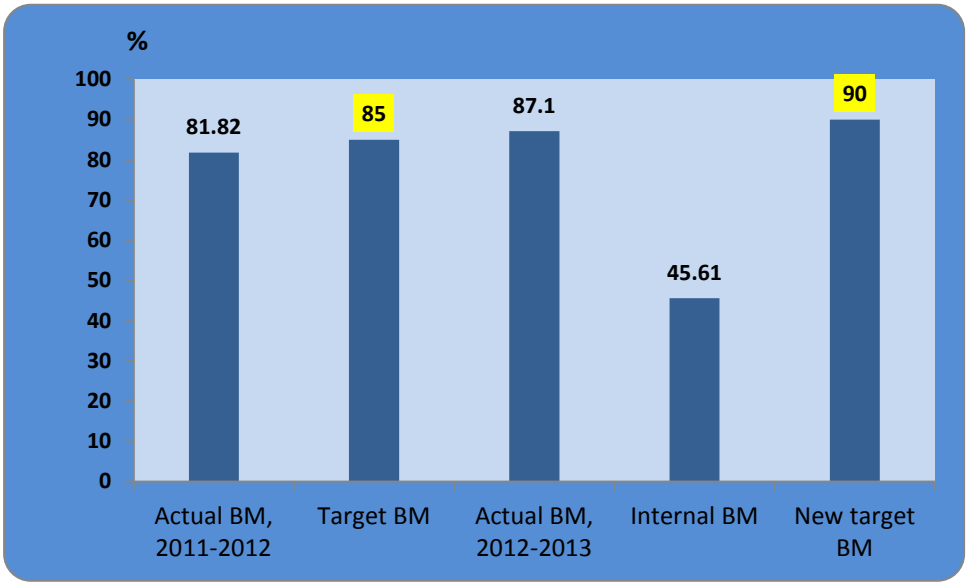
The following chart provide the information regarding the citations in refereed journal per staff member compared to the benchmarks:



KPI 24: Proportion of full time member of teaching staff with at least one refereed publication during the previous year.	
Target Benchmark	85%
Actual Benchmark	87.1%
Internal Benchmark	45.61%
External Benchmark	NA
New Target Benchmark	90%

Analysis: The above table indicates an outstanding performance of faculty members in this KPI which is 87.1%, leading to the conclusion that almost all faculty members are engaged in research publication in refereed journals. The internal benchmark for this KPI which is Plant Protection Department is far below. This means that program's performance is relatively better in research publication compared with last year (2011-2012) and the target benchmark (85%). The target for the next year has been increased to 90%. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.

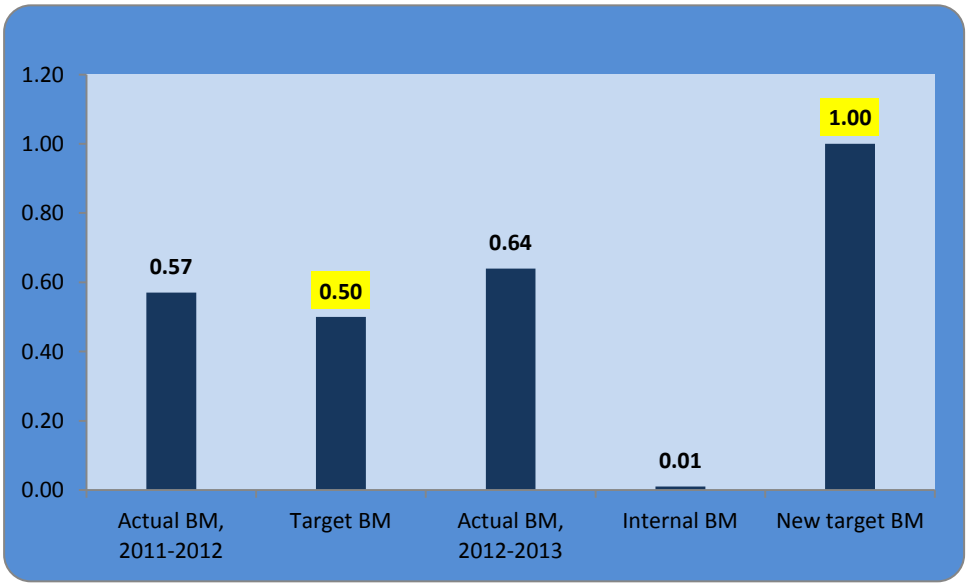
The following chart provide the information regarding the above KPI and compared with previous year and benchmarks:



KPI 25: Number of papers or reports presented at academic conferences during the past year per full time equivalent members of teaching staff.	
Target Benchmark	0.50
Actual Benchmark	0.64
Internal Benchmark	0.01
External Benchmark	NA
New Target Benchmark	1.0

Analysis: The target has been achieved and it is better than the internal benchmark and previous year (2011-2012; 0.57). There is an opportunity to further improved the performance since the university encourages all the staff members to attend as many as national and international conferences and workshops with complete financial funding. So, the new target benchmark can be achieved very easily. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.

The following chart provide the information regarding the above KPI and compared with previous year and benchmarks:



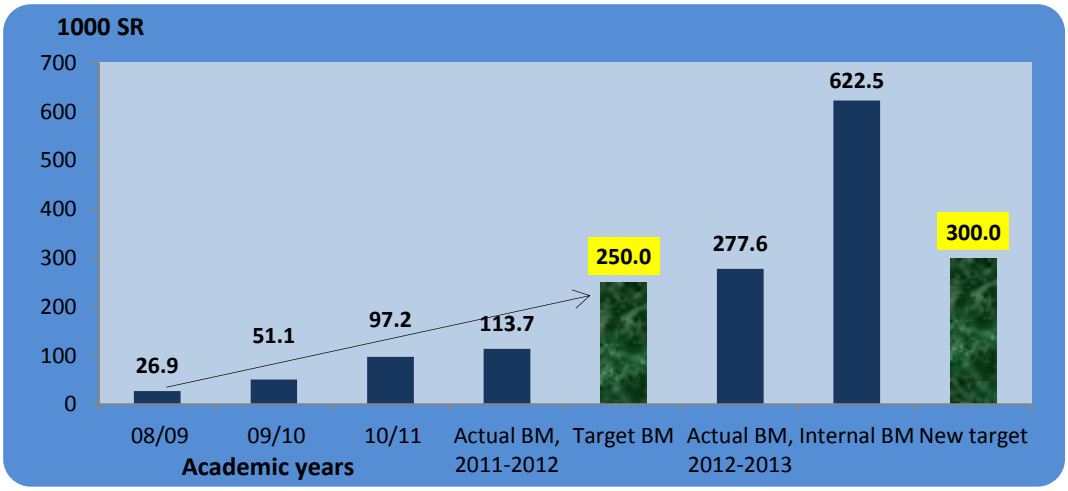
KPI 26: Research income from external sources in the past year as a proportion of the number of full time teaching staff members.

Target Benchmark	250,000 SR
Actual Benchmark	277,581 SR
Internal Benchmark	622,456 SR
External Benchmark	NA
New Target Benchmark	300,000 SR

Analysis: The actual benchmark has surpassed the target benchmark as reflected in the table. However, the actual benchmark is still far below the internal benchmark, (Department of Plant

Protection), which host many research chairs that attract research income from external sources. The new target for the next year has been increased. This means that such increase every year would bring the program close to internal benchmark. Moreover, the department encourages the staff members to apply for more funds from different national and international funding agencies to achieve the new target benchmark. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.

The following chart provide the information regarding the above KPI and compared with previous years and benchmarks:



Evaluation of research activities associated with the program and of staff teaching in it.
Provide a report **about the standard and sub-standards within it. Tables should be provided indicating the amount of research activity and other participation in scholarly activity and comparisons with appropriate benchmarks. The report should include a list of strengths, recommendations for improvement, and priorities for action.**

Research represents 60 % of the three aspects of the department activities (teaching, research and community services). There is a strong linkage between research and teaching to fulfil the vision and mission of the program. Most faculty members of the department had their postgraduate training from top USA, United Kingdom, Australia, Canada, Japan and European universities, and consequently have a rich and diverse mix of international scientific backgrounds. This diversity has made positive impacts on teaching and research quality in the program. The output of the research activities is reflected in the publications in the regional and international journals as well as participation of the faculty members in international conferences. There are a number of internationally known scientists who co-supervised

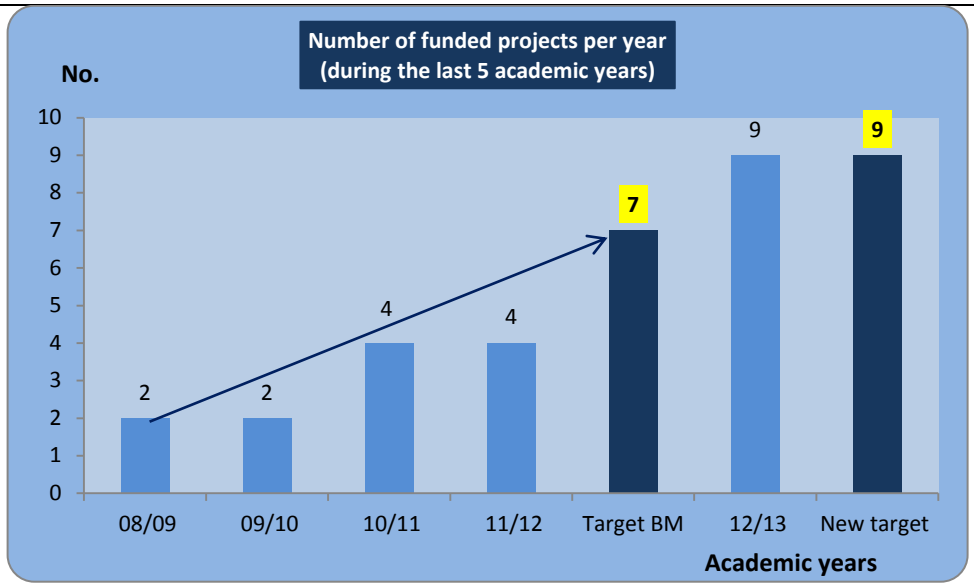
postgraduate students in local, regional and international universities.

A significant improvement in annual research budget, publication and research conference per FTE during year 2012-2013 compared with year 2011-2012. This improvement is directly related to the university policies which encourage all the staff members to attend as many as possible of national and international conferences and workshops with complete financial funding. The number of conference by staff member increase from 40 to 50 national and international. Moreover, the same trend followed for apply for more funds from different national and international funding agencies. The total funds increased from 363,7000 SR (2011-2012) up to 860,5000 SR (2012-2013) and expected to improve during the year 2013-2014 since many proposals were written and applied for funding through national and international agencies.

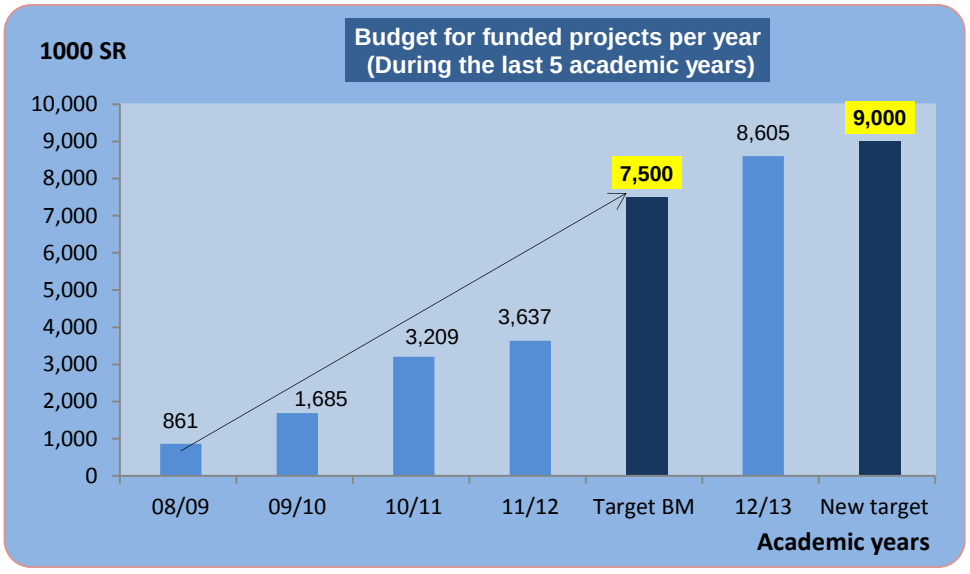
Scientific research is very crucial and important to all staff member since the department offer graduate studies degrees (M.Sc and Ph.D.). More than 60% of staff member activities are focused on research, followed by teaching (≥ 25%) and finally community services (≥ 15%).

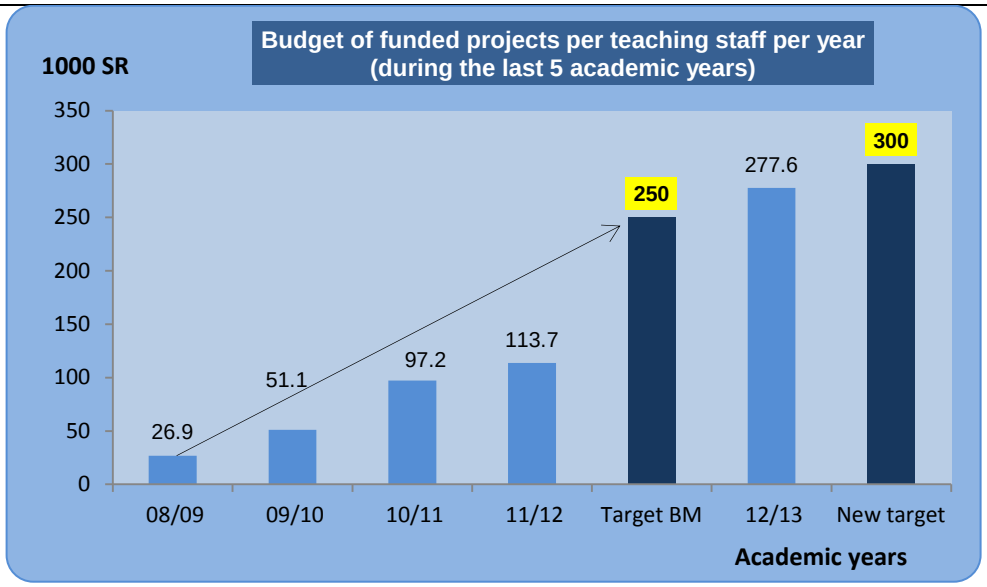
The number of research projects for the last five years (2008-2013) and funding agencies is shown in the table (3) and figure below:

Source of Funding	Number of Projects
Grants from National Plan for Science and Technology of King Abdul-Aziz City for Science and Technology	7
King Abdul-Aziz City for Science and Technology	9
Grants from the ministry of higher education through the center of excellence programs.	1
Private sectors (SABIC, 2ARASCO and Al-Tawaamah)	4
Total	21



The total budget per year and per staff member are shown below:





It is very clear from the above data that the staff members in the department are doing an outstanding job regarding the research activities and the funds increase significantly from year to another in a linear trend.

Strengths:

1- The department has well experienced researchers as well as outstanding young researchers who have a diverse international background.

2- The department has highly equipped laboratories and well-structured and developed animal experimental units for large animals and poultry in educational farm at Al- Ammareiah district.

3- The department has many joint research projects with many relevant national and international institutions.

4- The members of the department are able to attract research funds from public and private institutional sectors.

5- The high number of ISI publication relative to the faculty members.

Recommendations for improvement:

1- The research supporting infrastructure such as rooms for research equipment does not support the strategic plan of the department.

2- Development of central lab that serves all faculty members at the animal production department and must be managed by highly qualified and experienced technicians.

3- Activate the Department strategic plan for applying and marketing the research outputs.

4- Priority in research should be synchronized with the sustainable development plan of the country.

Priorities of actions:

1- Continuing the programs of training on the use and management of equipment for the students and technicians.

2- Development of highly equipped central lab that serves all faculty members at the animal production department and must be managed with high quality technicians and engineers for maintenance.

3- Develop a strategic plan for marketing and applying the research outputs.

4- Continuing support and encouragement of the staff and students for publication in ISI journals.

Table 4. Program Research Information
(For all individual branch/location campuses)

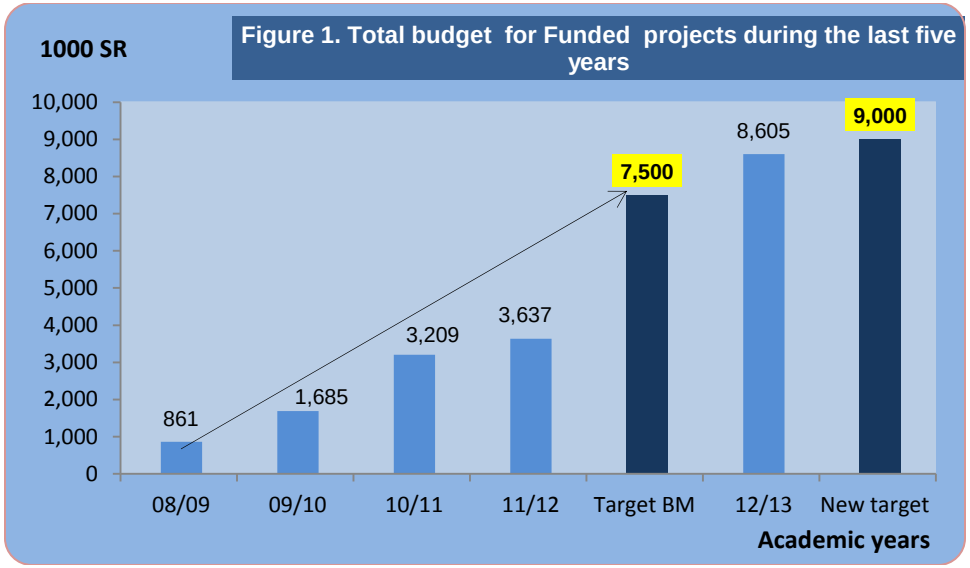
Complete the ***Program Research Information Table*** for each branch/location campus that offers the specific program. FTE (full-time equivalent) is calculated as 12 credit hours and should not include research, teaching or laboratory assistants.

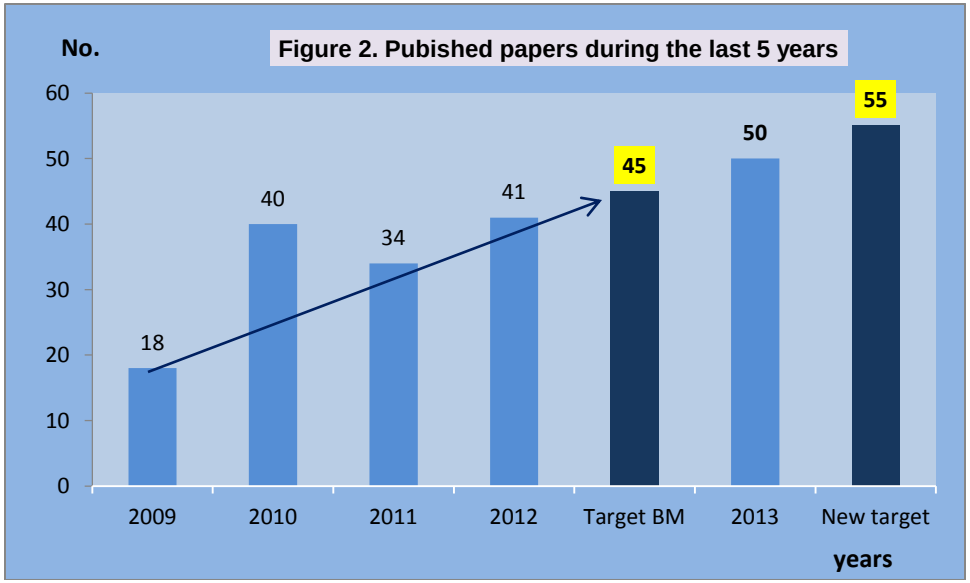
Program Branch /Location Campus (City)	Annual Research Budget Total Amount	Annual Research Budget Actual Expenditure	Publications Per FTE Faculty Member Per Year (male)	Publications Per FTE Faculty Member Per Year (female)	Research Conference Presentations Per FTE Faculty Per Year (male)	Research Conference Presentations Per FET Faculty Per Year (female)	Describe Research Activity (past 2 years)
Main Campus	3637000 SR* 8605000 SR** (Figure 1.)	3637000 SR 8605000 SR	**1.28** 41 **1.61** 50 (Figure 2.)	NA	**0.61** 19 **0.65** 20 (Figure 3.)	NA	A significant improvement in annual research budget, publication and research conference per FET during year 2012-2013compared with year 2011-2012. This improvement cause by the university policies to encourage all the staff members to attend as many as possible of national and international conferences and workshops with complete financial funding. Moreover, the same trend followed for apply for more funds from different national and international funding agencies. As a general trend, performance of the department for year 2012-2013 is much better compared with the last four years as shown in figures 1, 2 and 3.
Branch /Location 1	NA						
Branch	NA						

/Location 2							
Branch /Location 3	NA						
Branch /Location 4	NA						
Program Totals							

* Year 2011-2012

** year 2012-2013




No.
Figure 2. Pubished papers during the last 5 years
60
50
40
30
20
10
0
18
40
34
41
45
50
55
2009
2010
2011
2012
Target BM
2013
New target
years

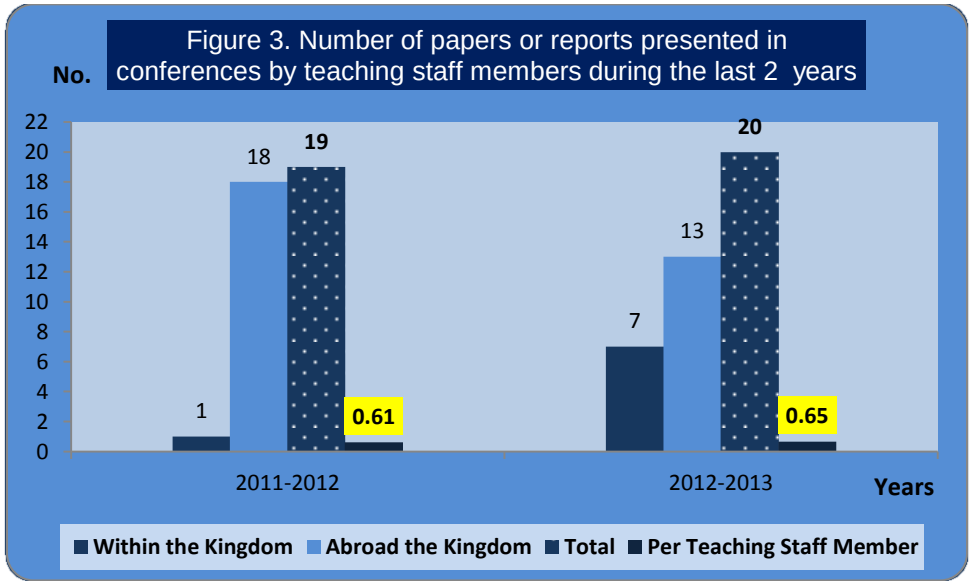


Figure 3. Number of papers or reports presented in conferences by teaching staff members during the last 2 years
No.
22
20
18
16
14
12
10
8
6
4
2
0
1
18
19
0.61
7
13
20
0.65
2011-2012
2012-2013
Years
Within the Kingdom
Abroad the Kingdom
Total
Per Teaching Staff Member

1. Attach the research approval flowchart
2. Attach the program research strategic plan
3. Attach the research policy manual

11. **Relationships with the Community (Overall Rating 3.40 Stars)**

Significant and appropriate contributions must be made to the community in which the institution is established drawing on the knowledge and experience of staff and the needs of the community for that expertise. Community contributions should include both activities initiated and carried out by individuals and more formal programs of assistance arranged by the institution or by program administrators. Activities should be documented and made known in the institution and the community and staff contributions appropriately recognized within the institution.

Provide an explanatory report about community activities carried out in connection with the program for the following sub-standards.

11.1 Policies on Community Relationships

- The Department of Animal Production aims to be an active member of the communities in which it is located and which it serves. The department has many established points of interface with the wider community.
- The Department of Animal Production recognizes that it has a huge influence on the local community. The department is building better links and working partnerships with local residents, local community and farms. It is dynamic to the department reputation that good community relations continue.

11.2 Interactions with the Community (Report description should include reference to interactions with the community by faculty).

- Interact positively with local farms on daily basis by helping in strategic planning and consultation services.
- Organize events with other organizations and governmental agencies.
- Encourage faculty and student volunteering in many events.
- Continue to proactively engage with community groups.
- Building relationships with alumni and help them through conducing career days.
- Provide opportunities for local community to interact with the department through attending public lectures.
- Outreach activities with local schools.
- Provide facilities and services to local community.
- Develop strategic partnerships with private sector corporations and local farms.

- Promote awareness for local community.

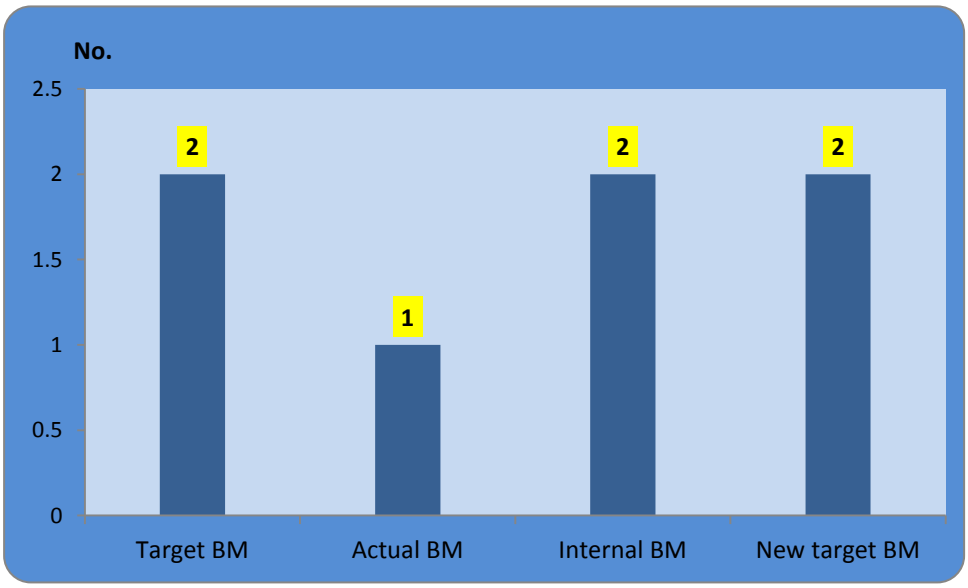
Describe the processes used to evaluate performance in relation to this standard and summarize the evidence obtained.

- The department provides a wide and diverse range of community services to local community, therefore, evaluation could be challenging.
- Means of evaluating the department engagement in community services is being developed with those involved, via questionnaires.
- The public feedback is captured most of the times by the use of questionnaires at large scale events such as public lectures.

Choose ONE OR MORE KPIs that best supports that the program meets this standard. Each KPI should use a separate KPI table. Insert the KPI in the table below, add the actual KPI benchmark with the other benchmarks, and provide an analytical interpretation that describes the outcome (most benchmarks are numerical and others may be descriptions that verify quality using a rubric).

KPI : Number of community education programs offered	
Target Benchmark	2
Actual Benchmark	1
Internal Benchmark	2
External Benchmark	NA
New Target Benchmark	2

Analysis: The target for this KPI is very close to be achieved; it is less when compared to the internal bench mark. The target benchmark is set at 2 and more actions are required to enhance the actual benchmark. The department has to develop more community education programs. The education programs offered can be easily enhanced by offering short courses, on-line courses; training for certain groups, conducting more workshops that deal with current issues for the community. The target groups need to be classified according to education level and courses should be designed accordingly.



Number of community education programs offered during the previous academic year (2012-2013).

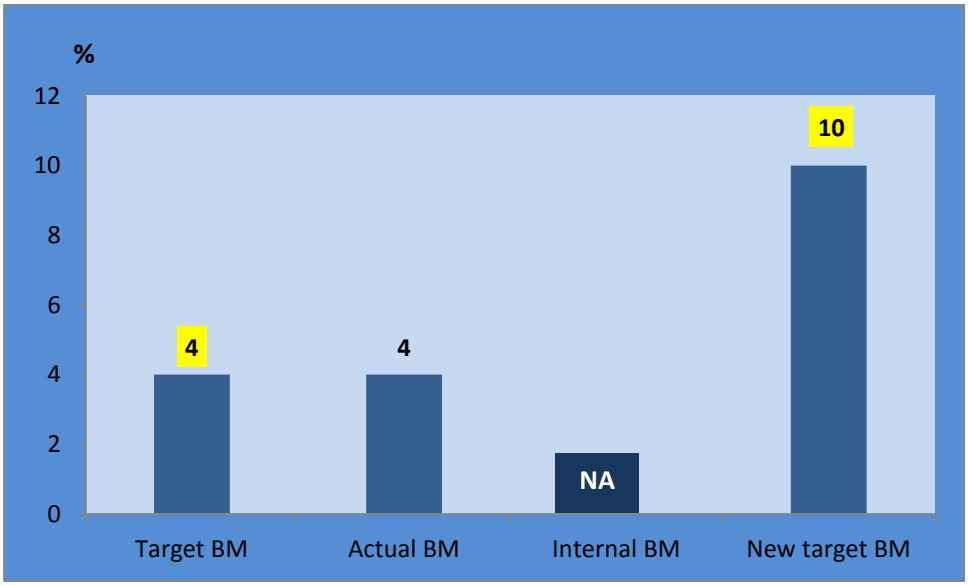
KPI 27: Number of hours of voluntary professional work spent in the community as a percentage of full time teaching staff.

Target Benchmark	4%
Actual Benchmark	4%
Internal Benchmark	NA
External Benchmark	NA

New Target Benchmark	10%

Analysis: The percentage of voluntary professional work spent in the community by teaching staff has been achieved. However, more work is required to achieve the new target benchmark. This could be enhanced by making sub-committee of teaching staff to deal with certain aspects of community work. For example, a committee will be formed to deal with alumni and carrier issues. Another committee will be formed to deal with animal production farms in the area to provide technical support. Another committee will be dealing with current issues such as diseases and feed additives that could be of concern for humans.

More regulations are required to improve the concept of voluntary work; it should be part of the load for each faculty member in addition to teaching and research.



Number of hours of voluntary professional work spent in the community as a percentage of full time teaching staff during the previous academic year (2012-2013

Evaluation of the extent and quality of community activities associated with the program and of staff teaching in it. Provide a report about the standard and sub-standards within it including tables showing the extent of community activities and a list of strengths, recommendations for improvement, and priorities for action.

The department is building better links and working partnerships with local residents, local

community and livestock farmers. It is dynamic to the department reputation that good community relations continue. So, many strengths of this relationship are noticed beside improvement needed.

Strengths:

1. Faculty members have significant contribution in animal farms and community. Faculty members are active in providing technical support for local farms and individuals upon request to solve problems.
2. Several projects have been designed to solve problems in the industry and to improve the productivity and to control diseases in farms.
3. Faculty are involved some governmental agencies such as Al-Shoura Council, Ministry of Higher Education and in private companies such as ARASCO.
4. Community service is considered in the promotion of teaching staff (Annex 11.2.1).
5. Locations of the department facilitate such activities in and around the capital city.
6. University regulations that support and encourage such relationships, visits and cooperation activities

Recommendations for improvement:

1. Community services should be disseminated with better collaboration with Ministry of Agriculture.
2. Develop a significant contact and sustainable communication with the alumni who hold work position in the community.
3. Develop a coordination plan for community services.
4. Develop a coordination plan for community services. Moreover, develop a significant contact with the alumni.
5. Develop an alumni club.
6. Seek funding support by employers for students from school or those of preparatory year and develop as a result an employment program ahead.

Priorities of action:

- Activate and establish relationship with schools in order to help, support and make awareness for students to choose the program for future study and career.

H.1 Review of Courses

1. Describe processes followed in reviewing courses. (e.g. Surveys of graduates, faculty, or members of the profession, analysis of student course evaluations, review of course and program reports, interviews with faculty, comparison with similar programs elsewhere, consultancy advice, etc.)

The Development and Quality Committee in cooperation with the head of the department review all the courses every semester based on the result, compare them with similar programs in other national departments. The evaluation and recommendation depend mainly on the following surveys:

1. Students' evaluations surveys for the courses were reviewed. (Annex H.1.0.1).
2. Staff and course evaluation surveys in electronic form were done for most courses (Annex H.1.0.2).
3. The available course reports were reviewed (Annex H.1.0.3).
4. Graduate evaluations surveys for the program were reviewed (Annex H.1.0.4).

Annexes

Annex H.1.0.1. course evaluation by students
Annex H.1.0.2. Staff and course electronic evaluation surveys by students
Annex H.1.0.3. Course reports
Annex H.1.0.4. Graduate evaluations of the program

2. Course Evaluations

Summary report on strengths and weaknesses in courses and any other conclusions from the processes described under F1 above. (Note that individual course reports, student course evaluation reports and the most recent annual program report should be available for reference.)

- New academic study plan was developed four years ago which is comparable to other international universities. This plan has been developed to obtain high quality and well trained graduate to be able to achieve their duties properly. Moreover, the changes in the plan depend mainly on the feedback from the students and employers.

Strength:

- The course objectives are clear
- The faculty members are outstanding and their classes are relevant.
- The class rooms are well equipped.
- The program has positive impact on learning and self-independence skills.
- The availability of academic and social resources are noticed.
- The faculty members are available during the office hours.
- The learning sources are diverse and appropriate.
- The satisfaction about the course contents is noticed.
- The student assessment is fair.

Weaknesses in courses:

- Repetition of some scientific topic between some courses in the program study plan.
- The credit hours assigned for some courses are very limited to achieve the objective of the course.

I Independent Evaluations

1. Describe the process used to obtain independent analysis on the quality of the program and the reliability and validity of analyses carried out in the report. Processes may include a review of documentation by an experienced and independent person familiar with similar programs at other institutions and who could comment on relative standards, consultancy advice or a report by a review panel, or even the results of an accreditation review by an independent agency. An independent evaluation may be conducted in relation to the total self-study, or involve a number of separate comments by different people on different issues.

- In 2008, **the Agricultural Institute of Canada (AIC)** was appointed as independent evaluator for the program. The Canadian expertise in the area of agriculture visited the college and the animal production department and went through all documents requested, visited all facilities including laboratories, farms and other facilities. They discussed many issues important for high quality educational outputs with the College Dean, Vice Dean of Development Quality, Head of Quality Unit, Head of Animal Production Department, Departmental Assessment and Academic Accreditation Committee and selected staff members. In 2010, the program was fully accredited (see Annex I. 1.). The main serious concern of AIC reviewers was the limited number of undergraduate student enrolled in the most important agriculture area (Animal Production) and the department will have to engage in an active recruitment program to attain viable numbers of students. Regarding the educational capabilities and quality, the department has about 31 teaching staff member with different ranks and most of them graduated from a respective universities in North America and Europe. They are active publishers and have a good knowledge of their discipline areas. On the other hand, the department has access to a number of well-equipped teaching laboratories supplemented by an even larger number of research laboratories. Field research facilities including animal experimental, poultry housing, mill and others are available in the educational farm in Al-Ammareiah district. Access to commercial livestock farms and animal feed manufacturing companies are established for students' training and teaching and research purposes.
- Recently (in 2013), a consultant from Prince Sultan University was invited to conduct an independent review of the ANP program and to provide an independent opinion in the Self – Evaluation Scales Report (SSRP) for NCAAA accreditation (Annex I.2.). The consultant is the current director of the quality assurance center in the said university who is also responsible for obtaining their full institutional accreditation for PSU from 2010-2017. Through the Office of the Vice Dean for Development and Quality of the College of Food and Agriculture Sciences, arrangements have been made to formalize the consulting activity. Logistical requirements were provided to the consultant as requested. The Director of Quality Assurance Unit of the college arranged for the individual and group interview session, site visits to facilities and offices, and review of accreditation documents. In order to

obtain sufficient information about the program, around 35 hours of visit to the department have been conducted. Interview sessions with the program managers were held and separate group interviews were also conducted involving a representative number of teaching staff, personnel and students. In addition, the consultant also conducted the following activities:

1. Visit to the laboratories of the department
2. Visit to the University Library
3. Visit to other learning facilities of the department
4. Review of quality assurance documents
5. Visit to the we-site of the KSU and the CFAS, and
6. Review of existing manuals, brochures and handbook.

2. Summary of matters raised by independent evaluator(s). ***Provide a response report*** to each of the recommendations provided by the independent evaluators.

The issues that raised by the independent evaluator can be summarized as follow:

1. In general, there is limited information provided for each subsection indicated in Section G (Evaluation in Relation to Quality Standards), particularly for Standards 3, 4, 5, 6, 7 and 11. Reference should be made to KPIs where they are relevant to the concerned items. Specific data are needed to show trends, statistical data, figures derived from survey results. Conclusions need to be supported and benchmarked against other similar institutions where they are relevant.

Response: All the above comments were seriously considered by including the relevant KPIs for each standard supported with figures compared to the internal benchmark and targeted benchmarks. Still the department face difficulties to obtain external benchmark. Even though external benchmark is absent, the CFAS and the animal production department have already made efforts to establish collaboration with other universities with similar programs in the USA and other well-known universities in Europe and Australia. We expect to receive a response from these universities very soon.

2. The low enrolment rate of students in the Animal Production Program needs to be seriously addressed. A comprehensive plan of action has to be formulated and supported by the College. Consequently, apparent completion rate (graduation rate) is adversely affected.

Response: The department follows different strategies to increase number of student enrolment. The most effectively used and perceived beneficial strategies were contacts with secondary schools and community, individual contact by the staff members and student contact with other potential students, use of various publications (promotional brochures, videos, posters, bulletin boards, newsletters, newspaper, radio, television, and school announcements), and the use of special recruitment events. Special services can be provided by the department, which includes providing information, recruiting, orientating and supporting students through their first classes at the department. As a result of these new strategies, twenty three new students enrolled in the 2013-2014 academic year.

3. Although student learning outcomes are appropriately specified in the course specifications, there is a need to directly measure learning outcomes other than the tradition forms of assessment such as the use of rubrics.

Response: For the student learning outcomes, the department accreditation steering committee reviewed all the data regarding the assessment of student learning outcomes to assure the use of more direct forms of assessment including the rubrics. The direct form assessment will be started this semester (second semester- 2013/2914) in term of exchanging the correction of final examination papers within the staff members.

4. Generally, although program managers seem to demonstrate a strong commitment to quality assurance, there is a need to improve the physical resources of the quality assurance unit in the college. In addition, a more systematic and organized system of quality assurance database should be set-up at the program level. Moreover, additional seminar workshops may be required for program managers and faculty to obtain more knowledge about the quality.

Response: The QMS (Quality Management System) at KSU is responsible of the following:

1. Addresses all matters related to the Internal Quality Assurance (IQA) and the External Quality Assurance (EQA) of the institution as per the established minimum requirements of the standards, criteria, items and key performance indicators at the institution, colleges and programs levels and the administrative units.
2. Ensures that the Quality Assurance (QA) in the institution, colleges and programs and the administrative units is properly maintained and managed.
3. Ensure that all policies and regulations pertaining to QA at the university, college and programs levels and the administrative units are properly documented, analyzed and disseminated and is properly maintained and managed as per the Strategic Performance Management System.

This system works efficiently to provide technical and scientific support on the departmental levels to ensure outstanding quality assurance. At the program level, the entire quality assurance indicators are well established and documented. The program specifications, annual reports, courses specifications, courses reports, field experience specification and all surveys and their analysis are available as a soft and hard copies. Moreover, an exhibit room has already been established where all records and documents pertaining to program accreditation are securely kept.

3. **Provide an analysis report** on matters raised by independent evaluator(s) (Agree, disagree, further consideration required, action proposed, etc.).

- The Department accreditation steering committee completely agreed with the independent evaluator for point 1 and 2 that mentioned above. The action plans were developed and a significant improvement achieved in term of number of student enrolled and standards KPIs and benchmarking.
- Regarding comments 3 and 4, the committee disagreed because of the department maintained a high Quality Assurance (QA) system with high efficiency. Moreover, the student learning outcomes are properly evaluated considering all different assessment methods including rubric

when applicable.

- Attach or hyperlink the independent evaluation report and CVs

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Annex I.1. Accreditation certificate from AIC.

Annex I. 2. Matters raised by the independent evaluator.

J Conclusions

1. **List and briefly describe** aspects of the program that are particularly successful or that demonstrate high quality.

- The mission is well known among staff, students and employees.
- Strategic and quality plans were developed together with indicators and benchmarks.
- Program, courses, staff evaluation surveys are continuously conducted by students and graduates and properly analysed for improvement.
- Several leadership administrative and academic skills development programs are regularly offered for the Department Heads, faculty members, new staff and other academic administrators by KSU Skills Development Deanship.
- Strategic and quality plans were developed together with indicators and benchmarks.
- Number of refereed publications per full time equivalent member of teaching staff (1.61/ teaching staff).
- Proportion of full time member of teaching staff with at least one refereed publication during the previous year (87.01% of teaching staff).
- The percentage of voluntary professional work spent in the community by teaching staff (4%).
- Proper academic course plan provided by the department.
- High quality of course teaching.
- A significant contribution of staff members in national and international academic conferences (17 national and international conference attended by teaching staff).
- The percentage of teaching staff leaving the department for reasons other than age retirement is within acceptable range (only 3.23%).

- Employers' evaluation regarding the department graduates performance (3.5/ 5).

2. **List and briefly describe** aspects of the program that are less than satisfactory and that need to be improved.

- Development of plans encouraging the teaching staff to improve publication quality so as to increase the number of citations.
- Encouraging the members of teaching staff to apply for external grants.
- Development of community education programs.
- Enhance graduates quality through update curriculum with focusing on the field experience training.
- Performing continuous academic reforming.
- Increase the number of courses evaluated every year for high accuracy.
- Increase the number of undergraduate students enrolled in the program

K1. Action Proposals

Action proposal should be based on the matters identified in sections F, G, H, and I and indicate recommendations for improvement proposed to deal with the most important priorities for action identified in those sections.

1. **Changes in Course Requirements (if any)**

List and briefly state reasons for any changes recommended in course requirements, e.g.

- Courses no longer needed;
- New courses required;
- Courses merged together or subdivided;
- Required courses made optional or elective courses made compulsory;
- Changes in pre-requisites or co-requisites
- Changes in the allocation of responsibility for learning outcomes as shown in the course planning matrix.

- **None**

2. **Action Recommendations**.

Recommendations for improvement are made for action to be taken to overcome problems or weaknesses identified. The actions recommended should be expressed in specific, measurable for terms for assessment, rather than as general statements. Each action recommendation should indicate who should be responsible for the action, timelines, and any necessary resources.

Action Recommendation 1.

Increase numbers of enrolled students through establish a contact with secondary schools and community. Use of various publications (promotional brochures, videos, posters, bulletin boards, newsletters, newspaper, radio, television, and school announcements), and the use of special recruitment events will hopefully improve student enrolment.
Person (s) responsible - Head of the Department (Prof. Ahmed Ibrahim Al-Haidary) - Student Recruitment Committee.
Timelines (For total initiative and for major stages of development) Start of the Academic Year 2014/2015 and will be a continuous process.
Resources Required Financial support by the college and the University.

Action Recommendation 2. **Improving the quality of the facilities and equipment.**
Person(s) responsible - Head of the department (Prof. Ahmed Ibrahim Al-Haidary). - Laboratories, Equipment and Service Committee (Prof. Ahmed Ibrahim Alhaidary).
Timelines - Start at the academic year 2014-2015. - Continuous process.
Resources Required Continuous financial support by the university

Action Recommendation 3.

Development of community education programs and services

Person(s) responsible

- Head of the department (Prof. Ahmed Ibrahim Al-Haidary)
- Community Service Committee (Prof. Saeid M. Basmaeil).

Timelines

- Start at the academic year 2014-2015.
- Continuous process.

Resources Required

- Current resources are sufficient.

Action Recommendation 4.

Development of plans encouraging the teaching staff to improve publication quality so as to increase the number of citations.

Person(s) responsible

- Head of the department (Prof. Ahmed Ibrahim Al-Haidary).
- Dean of the college
- Research centers.

Timelines

- Start at the academic year 2014-2015.
- Continuous process.

Action Recommendation 5. **Recruitment of high qualified laboratory and research technical support staff**
Person(s) responsible - Head of the department (Prof. Ahmed Ibrahim Al-Haidary). - Dean of the college. - University employment office. - Research centers**.**
Timelines - Start at the academic year 2014-2015.
Resources Required - Continuous financial support by the university

K2 Program KPI and Assessment

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	Students overall evaluation on the quality of their learning experiences at the institution. (Average rating of the overall quality of their program on a five point scale in an annual survey final year students)	**3.5**	**3.65**	**3.5**	**NA**	The table clearly shows that the performance for this KPI is higher than the target benchmark and internal benchmark (which is plan protection program). No external benchmark could be identified so far due to non-availability of data of other institutions (local or international). Quality committee is trying its best to identify external benchmark for this KPI. Keeping the results of target and actual benchmark in view, the target for the new academic years has been set to 4.0 as program managers will	**4.0**

						be working on the areas requiring improvement in the survey forms for better results in future.	
2	Proportion of courses in which student evaluations were conducted during the year.	**50%**	**15%**	**60%**		The actual benchmark is far behind both the target and internal benchmarks. The reasons are mainly technical and administrative. The target for the next year has been kept 60% as the department has planned a set of strategies for conducting course evaluation in most of the courses. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.	**60%**
3	Ratio of students to teaching staff. (Based on full time equivalents)	**4:1**		**0.05:1**		The results in this KPI are quite odd as students to faculty	**4:1**

			0.68:1 (21Stud./31staff)			ratio were set as 4:1 but the actual result is quite less. It is because there is lack of student enrolees for the current academic year. Program managers have set the same target for next academic year. Efforts would be done to increase the number of students to meet the target by conducting more workshops and extension programs targeting the high school students and the community in general. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.	
4	Students overall rating on the quality of their courses. (Average rating of students on a five point scale on overall evaluation of courses)	**3.5**	**3.65**	**3.80**		The table clearly shows that performance for this KPI is higher than the target and closer to internal benchmark.	**4.0**

						However, it needs to be increased, so the target benchmark for the next year has been set to 4.0. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.	
5	Proportion of teaching staff with verified doctoral qualifications.	**80.00%**	**83.87%** **(26/31)**	**82.46%**		The results for this KPI are quite good since more than 80% of faculty members have doctoral qualification. This quite close to internal benchmark as well. The target for the next years has been kept the same as current year as the results would not change for few more years. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.	**80.0%**
6	Course completion rates for a. Full time students	**90%**		**NA**		The table shows an excellent performance	**95**%

			92%			in this KPI which is 92% (higher than the target benchmark). The department has increased it to 95% with a plan to make it 100% in future. No internal or external benchmark was available for this KPI. Efforts would be made to obtain them in the future to compare with.	
7	Proportion of full time student's commencing undergraduate program who complete those programs in minimum time specified for the program.	**60%**	**33.3%**	**NA**		The program completion rate for this program is not very encouraging as the target was 60% and only 50% was achieved. This is due to lack of interest of students in their studies. No internal or external benchmark was available for this KPI. However, the target has been increased due to special attention to students for completing the program in the minimum time.	**75%**

8	Proportion of graduates from undergraduate programs who within six months of graduation are: d. Employed e. Enrolled in further study f. Not seeking employment or further study	**a. 80%** **b. 15%** **c. 5%**	**a. 80%** **b. 6.7%** **c. 13.3%**	**a. 55%** **b. 16%** **c. 29%**		The target proportion of graduates' employed was achieved and higher than the internal benchmark. The graduates enrolled in further studies were below the targeted and internal benchmark. Moreover, the unemployed graduates were higher than targeted, but lower than the internal benchmark. Surveys will be conducted to identify reasons for unemployment and low percentage of enrolment in further studies. So, proper and efficient plan will be developed to solve this issue.	**a. 80%** **b. 20%** **c. 0%**
9	The overall rating of the employers on the performance quality of the program graduates.	**3.5**	**3.49**	**3.0**		Employers' feedback is one of the crucial indicators. The table shows that the actual benchmark almost	**4.0**

						reached the target benchmark and are quite better as compared to the internal benchmark. However, the target has been increased for the next year as program managers expect a higher satisfaction as a result of certain changes in the teaching and learning systems such as the successful integration of field training course in the curriculum. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs. **I**ncorporation of Employers into learning and teaching process through lecturing and workshops will be considered for improvement.	
10	Student evaluation of academic					This KPI has achieved	

	and career counselling. (Average rating on the adequacy of academic and career counselling on a five point scale in an annual survey of final year students)	**3.5**	**3.67**	**3.00**		its target. However, the target was kept low in this KPI in order to create the culture of evaluation. That is why, the target has been set to 4.0 for the next year with an expectation to reaching close to it. Comparing it with internal benchmark, it is quite better than the internal benchmark**.** No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.	**4.0**
11	Student evaluation of library services. (Average rating on adequacy of library services on a five point scale in an annual survey of final year students)	**3.5**	**3.80**	**4.6**		Analysis of the table shows that the target has been met and students' satisfaction is higher than the target. However, it is quite below than the internal benchmark. The target for the next year has been set to 4.0 for a steady progress to meet the internal benchmark. No	**4.0**

						external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.	
12	Average overall rating of adequacy of facilities and equipment in a survey of teaching staff.	**3.5**	**4.00**	**4.5**		The table shows that performance surpassed the target benchmark. However, it is quite less than the internal benchmark. Practical solutions have to be applied to meet the target which is increased to 4.5. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.	**4.5**
13	Proportion of teaching staff leaving the department in the past year for reasons other than age retirement.	**3%**	**3.23%**	**3.51%**		The actual benchmark falls within the range of the target. More actions are needed to cut off reasons which lead to leaving the department. The higher administrative authority has to be	**3%**

						involved to reduce the number of staff leaving the department. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.	
14	Number of refereed publications in the previous year per full time equivalent member of teaching staff. (publications based on the formula in the Higher Council Bylaw excluding conference presentations)	**1.2**	**1.61**	**1.28**		The table shows a very good performance in this KPI having 1.6 which is higher than the target and internal benchmark, However, the target for the current year has been increased to 1.5 which is still less than the current year but it is kept as 1.5 to have a steady progress in the KPI. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.	**1.5**
15	Number of citations in refereed journals in the previous year per full time equivalent teaching	**1.5**	**1.20**	**1.03**		The number of citations is little less than the target,	**1.5**

	staff.					although it is better compared to the internal benchmark. The department has to improve publication quality to fulfil the target. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.	
16	Proportion of full time member of teaching staff with at least one refereed publication during the previous year.	**85%**	**87.10%**	**45.61%**		The table indicates a very good performance of faculty in this KPI which is 85% leading to the conclusion that almost all faculty members are engaged in research publication in refereed journals. The internal benchmark for this KPI which is Plant Protection Department is far below. This means that the program's performance is quite better in research publication. The target for the next year has been	**90%**

						increased to 90%. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.	
17	Number of papers or reports presented at academic conferences during the past year per full time equivalent members of teaching staff.	**0.50**	**0.64**	**0.01**		The target has been achieved and it is better than the internal bench mark. However, program managers realize that this KPI needs to be improved to a higher level of 0.1 per faculty members which is the target for the coming year. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.	**1.0**
18	Research income from external sources in the past year as a proportion of the number of full time teaching staff members.	**250 000 SR**	**277 581 SR**	**622 456 SR**		The target has been achieved as reflected in the table. However, even the target is far below the internal benchmark which means the department	**300 000 SR**

						has to work very hard to reach closer to the internal benchmark. The new target for the next year has been increased. This means that such increase every year would bring us close to internal benchmark. No external benchmark could be identified for this KPI. However, efforts would be done this year to find some external benchmark for KPIs.	
19	Number of community education programs offered.	**2**	**1**	**2**		As indicated in the table that there the target benchmark for this KPI was to hold 02 Community education program. However, department could meet to 50% of this target which is lower than the internal benchmark. The department has to develop more community education program to meet this target next year.	**2**

20	Number of hours of voluntary professional work spent in the community as a percentage of full time teaching staff.	**4%**	**4%**	**NA**		The table indicates that The 4% of voluntary professional work spent in the community by teaching staff has achieved the target. More effort and plans must be developed to enhance the relationship with the community and achieve the future benchmarks (10%).	**10%**

Analysis of KPIs and Benchmarks:

- A significant number of KPIs are fallen with the target benchmark designed by the department to achieve high quality teaching and consequently graduate. Most of these KPIs are designed to provide student with a healthy academic environment for learning and gaining a real experience. Moreover, an outstanding research and publication activities is reported beside a significant financial support. The department is targeting to increase the research income from external and internal agencies which achieved this year by obtaining more than 8 million SR for research and more fund expected until the end of this academic year (2014-2015). On the other hand, the number of community education and services programs must be increased to play a significant role in improving the livestock productivity and health.

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).
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.

Student Learning Outcome Assessment

Use the rating scale with 5 reflecting the higher value and 1 the lowest value

	Learning Domains for Learning Outcomes Rating Scale	**1**	**2**	**3**	**4**	**5**
1.0	Knowledge Content – Assessment					
	Do the knowledge content requirements align with the requirements normally expected by a professional society or employers?				√	
2.0	Cognitive Skills – Assessment					
	Do the cognitive skill requirements align with the requirements normally expected by a professional society or employers?				√	
3.0	Interpersonal Skills and Responsibility – Assessment					
	Do the interpersonal skills and responsibility requirements align with the requirements normally expected by a professional society or employers?				√	
4.0	Communication, Information Technology, Numerical -- Assessment					
	Do the communication, information technology, and numerical requirements align with the requirements normally expected by a professional society or employers?				√	

5.0	Psychomotor Skills -- Assessment					
	Do the psychomotor skills requirements align with the requirements normally expected by a professional society or employers?				√	
	Total Scores				16	
	Composite Score				4.00	

Analysis of Student Learning Outcomes (Provide strengths and recommendations for improvement):

Strength:

1. High percentages of the graduates are being employed within six month of graduation.
2. Eemployers were generally satisfied with program graduates and believed that graduates have the necessary knowledge and skills.

Recommendation for improvement:

1. Keeping track of the department graduates through the alumni and provide them with technical support.
2. Updating the graduate knowledge through seminars and workshops.

ADDITIONAL DETAILS AND IMPORTANT NOTES

The following documents should be provided as **ONE** hard copy and also in an electronic format using a USB or CD. This information must be submitted to the NCAAA at least four months prior to the date of the review.

The SSRP should be on A4 paper, unbound, printed on one side, page numbered, and with a table of contents for reference. A list of acronyms used in the report should be included as an attachment.

ATTACHMENTS – IMPORTANT NOTES

Where evidence is provided for each section of the SSRP, such as attachments, it is recommended that these documents be contained in the NCAAA portal and hyperlinked to the relevant section in the document.

ENSURE THAT THE ATTACHMENTS PROVIDED ARE RELEVANT AND RELATED TO THE SSRP.

- ***Attachments must be current and not less than 2 years old***
- ***Use a short descriptive file names to identify the contents of each attachment.***
- ***Photos, excessive letters, emails, notes, memos , surveys etc and numbers of files are not encouraged. These types of documents can be shown when the review team arrives at the institution.***

It is important that the following documents are submitted as a minimum with the SSRP.

I. **Completed *Self-Evaluation Scales* template for programs.** The completed scales should include star ratings, independent comments, and indications of priorities for improvement as requested in the document, and should be accompanied by a description of the processes used in investigating and making evaluations.
II. ***Program Specifications***
III. ***Annual Program Report –*** provide two reports for the last two years
IV. A brief summary of the outcomes of **previous accreditation processes or Mach Review** (if any) including program accreditations and any special issues or recommendations emerging from them.
V. A copy of the program description from the **bulletin** or **handbook,** including descriptions of courses, program requirements and regulations.
VI. Three samples of ***Course Specifications*** for each level; three for each year or twelve altogether.
VII. A completed ***Periodic Program Profile***.

DURING THE REVIEW

The following documents should be available for the review panel during the visit. Members of the panel may ask for some of it to be sent to them in advance.

VIII. All ***Course Specifications, Field Experience Specifications, Annual Course Reports*** and ***Annual Program Reports***.

IX. Faculty handbook or similar document with information about faculty and staffing policies, professional development policies and procedures and related information.

X. CVs for faculty and staff teaching in the program and a listing of courses for which they are responsible.

XI. Copies of survey responses from students and other sources of information about quality such as employers, other faculty, etc.

XII. Statistical data summarizing responses to these surveys for several years to indicate trends in evaluations.

XIII. Statistical data on employment of graduates from the program.

XIV. Representative samples of student work and assessments of that work.

If the program is one that is offered by a private institution and that has provisional accreditation a supplementary report should be attached listing requirements of the Ministry or other organization to which it is responsible for special accreditation, and providing details of the extent to which those requirements have been met.

Authorized Signatures

Dean / Program Chair	**Name**	**Title**	**Signature**	**Date**
Program Dean or Chair of the Board of Trustees Main Campus				
Vice Rector				

Annexes list

Annex G.1.0. A questionnaire form to measure awareness of staff members on the mission and objectives of the program.

Annex G.1.1. Results of surveys on the awareness of staff members on the mission and objectives of the program.

Annex 1.2. Proposed systems for benchmarking and analysis of the mission performance

Annex 7.0.1. Students, staff and faculty evaluation of the adequacy of available facilities and equipment

Annex 7.0.2. A list of labs, facilities and equipment available at the department.

Annex 8.0.1. The executive rules for financial affairs

Annex 9.2.1. Performance evaluation form of employees

Annex H.1.0.1. Course evaluation by students

Annex H.1.0.2. Staff and course electronic evaluation surveys by students

Annex H.1.0.3. Course reports

Annex H.1.0.4. Graduate evaluations of the program

Annex I.1. Accreditation certificate from AIC

Annex I. 2. Matters raised by the independent evaluator

Acronyms list

ANPR	Animal Production
B.Sc.	Bachelor of Science
DAR	The Deanship of Admissions and Registration
DSD	Deanship of Skills and Development
GPA	Grade Point Average
ISI	Institute for Scientific Information
KPI	Key Performance Indicators
KSA	Kingdom of Saudi Arabia
AIC	Agricultural Institute of Canada
KSU	King Saud University
MSc	Master of Science
NCAAA	The National Commission for Academic Accreditation and Assessment
PES	Program Evaluation Survey
PhD	Doctor of Philosophy
QMS	Quality Management Systems
SAG	Saudi Agricultural Companies Groups
SES	Student Experience Survey
SMS	Short Message Service
SSR	Self-Study Report
SWOT	Strengths, Weaknesses, Opportunities and Threats
URL	Uniform resource locator