Attachment 2 (a)

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

Agricultural Economics Department

College of Food and Agriculture Sciences

King Saud University

Ministry of Higher Education

Saudi Arabia

Program Specifications
(PS)

National Commission for Academic Accreditation & Assessment

Program Specifications

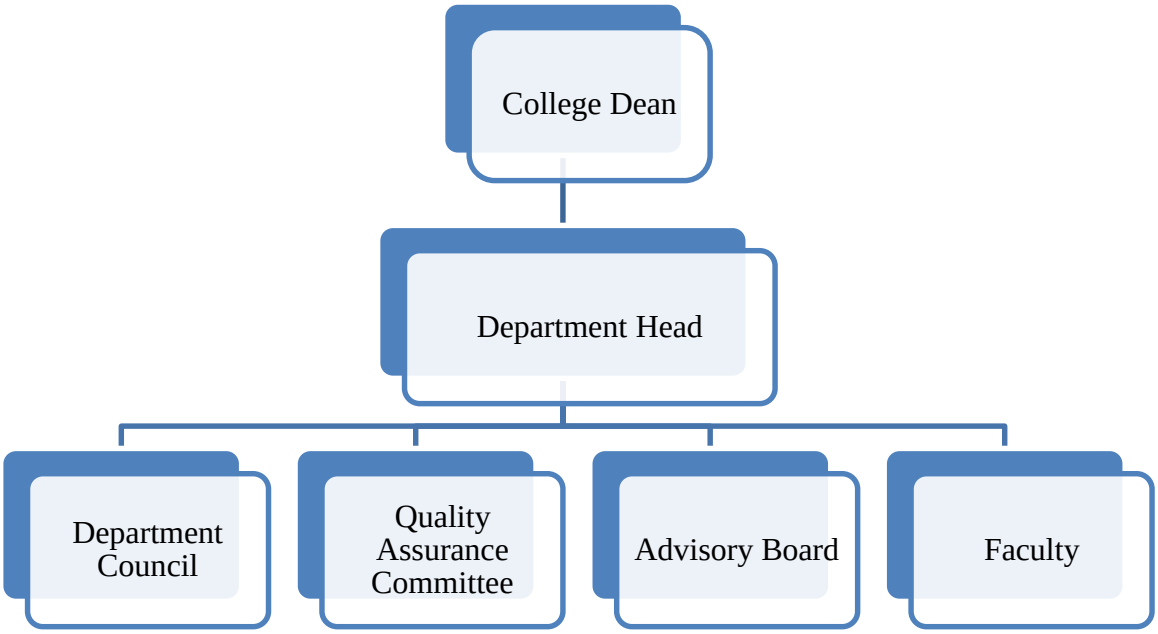
For guidance on the completion of this template, please refer to NCAAA guidebooks.

1. Institution: King Saud University Date of Report 16/01/2014

2. College/Department: College of Food and Agriculture Sciences/ Department of Agricultural Economics.

3. Dean / Prof. Fahad Albarakah

4. Insert program administrative flowchart



5. List all branches/locations offering this program:

Branch/Location :

1. Main campus, Derayaah, Riyadh, Saudi Arabia.

A. Program Identification and General Information

1. Program title and code: Applied Economics (APEC)

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

3. Award granted on completion of the program: B.Sc. in Applied Economics

4. Major tracks/pathways or specializations within the program:
There is no declared major tracks/pathways or specializations but student would concentrate on the following areas: Environmental and Resource Economics, Data and Price Analysis, Agricultural Marketing, International Trade, Finance and Accounting, Firm and Project Management, Policy and Planning Economies and Production Economics.

5. Intermediate Exit Points and Awards (if any) (eg. associate degree within a bachelor degree program):
N/A

6. Professional occupations (licensed occupations, if any) for which graduates are prepared. (If there is an early exit point from the program (eg. diploma or associate degree) include professions or occupations at each exit point):
There is no exit point from the program, and licensed occupations include: Public Program Analyst, Data and Price analyst, Firm Manager, Budget Analyst, Economic Developer, Agribusiness Manager, Marketing and Sales Analyst, Project Manager, Resource and Environment Manager, Finance and Banking Staff, Economic Researcher, Policy and Planning Analyst, and Cooperative Manager.

7. (a) New Program [No] Planned starting date [ ]

(b) Continuing Program [yes] Year of most recent major program review [2009/2010]

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

Accreditation review by King Saud University

8.Name of program coordinator or chair. (If a program coordinator or chair has been appointed for the female section as well as the male section, include names of both.)
Prof. Mahdi M. Alsultan
Program Head

9. Date of approval by the authorized body (MOHE for private institutions and Council of Higher Education for public institutions).

Campus Branch/Location	Approval By	Date
Main Campus	Council of Higher Education	2011/2012

B. Program Context

1. Explain why the program was established.

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

The program was established to satisfy the country's needs for qualified personnel in the fields of economics, and to provide study opportunities for students from Muslim and other friendly countries for better international cooperation and peace. In addition, the program contributes to improvement of food security of the country, the GCC region, and the international sphere. Furthermore, the program is designed to tackle issues of environment conservation and optimization of the use of natural resources in general, and scarce resources, such as water.

b. Explain the relevance of the program to the mission and goals of the institution.
The program is strongly linked to the mission and goals of the King Saud University as it provides the students with high quality education and research. The program also supports community partnership by maintaining links between the university staff and students with the national and international societies to achive the aspirations of the university.

Relevance of the Program to the Mission and Goals of the Institution.
The mission of the APEC program is relevant to its institutional counterpart. As mentioned in the discussion of standard 1 in the department's SSRP, the mission of both the institution (KSU) and the college were used in the process of developing the department's mission to assure synergy. Table (1) below shows that the APEC program's mission supports the major aspects of its institutional counterpart in the areas of education, research, and community service. Since the department's goals and objectives are designed to serve and therefore are aligned with its mission, then it follows that these goals and objectives also serve and are therefore relevant to the mission and goals of the institution.

A careful examination of the department's goals and objectives clearly reveals that they fully support and further KSU's strategic objectives (see Table(2)). Through fostering an environment that is conducive for intellectual and creative activities, the department aspires to prepare qualified graduates with the relevant skills, produce quality scientific research, and interact with and serve the local as well as the international community. Among other things, KSU on the other hand, aims to provide the best education, opportunities, skills and relevant experience; excel in fields of scholarship and research; and become involved locally, nationally and internationally. Thus, the synergy is evident between these two sets of objectives indicating the relevance of the APEC program to the mission and goals of KSU.

Table (1): Relevance of APEC program mission to that of KSU.

Department Mission	**KSU mission:**
To offer distinguished academic programs at both the B. Sc. and M. Sc. levels, in different areas of agricultural economics, that would produce qualified graduates; provide solutions for problems facing the agricultural sector through applied research; and to participate in formulating future strategies for the development of the sector.	To provide students with a quality education, conduct valuable research, serve the national and international societies and contribute to Saudi Arabia's knowledge society through learning, creativity, the use of current and developing technologies and effective international partnership.

Table (2): relevance of APEC program goals to those of KSU.

Department goals	KSU strategic objectives
• To prepare its graduates scientifically and intellectually. • To contribute to solving agricultural economics problems facing the Saudi society through scientific research, consultancies, training, and specialized seminars and symposia. • To participate in national and international scientific conferences and seminars in order to promote national scientific research and adapt international research frontiers to local environment. • To raise societal awareness about the importance agricultural economics as a science and its applications using different media outlets. • To foster and develop an environment that is conducive for intellectual and creative activities by offering academic programs, training courses, and qualified human resources.	• Maintain a distinctive faculty possessing the highest credentials and abilities. • Provide graduate students with the best education and opportunities that will enhance their knowledge, skills and relevant experience. • Establish excellence in all fields of scholarship and research. • Building bridges locally, nationally and internationally. • Provide a supportive learning environment for faculty, staff and students. • Ensuring a sustainable environment for the pursuit of excellence. • Establishing flexibility and accountability.

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

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

To make sure those courses meet the needs of students in the other programs, the syllabuses and courses contents are discussed with other programs faculty to modify the course contents to meet their student needs. Also, to improve courses to meet their needs is compatible with department policy. Some situations and examples from these programs are applied to make sure that these courses meet the needs of the students. (e.i. course of Animal Production Economics).

For graduate students, Agricultural Economic Program offers all courses of statistical analysis and field experiments design and analysis for all graduates at other programs at the College of Food Sciences and Agriculture.

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

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

It requires periodic reviewing of course contents to be sure they meet the students' needs. Also, program managers discuss courses with other department to improve them to meet students' needs by explaining the knowledge and skills which are required for students in these courses. The new plan of the program has the courses required to be passed by students in the program. Most of these courses are covering the basics of micro and macro-economics. Also, courses include basics of marketing and financial studies.

3. Do students who are likely to be enrolled in the program have any special needs or characteristics? (eg. Part time evening students, physical and academic disabilities, limited IT or language skills).

Yes ✓ **No** ☐

4. What modifications or services are you providing for special needs applicants?
The services the department are providing for the special needs of applicants in APEC include:

- Provide physical and academic disabilities equipment (e.g. desks and chairs, computers,...)
- Easy entrance to labs and department.
- Part time learning if needed.

C. Mission, Goals and Objectives

1. Program Mission Statement (insert)
To advance knowledge using highest standards of excellence in learning, research aspects to produce relevant graduates in various aspects of economic issues through teaching, training, research, outreach consultancy and sound management.

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

Goals Objectives	Major strategies	Measurable indicators
Goal 1: To prepare graduates to excel scientifically and intellectually, equip them with necessary skills to be economic analyst and contribute to agricultural economic development.		-Number of courses that have a quantitative analytical nature. - Number of students who achieved 80% or better in university entry exams who enrolled in the program. - Percentage of such students who graduate from the program. - Student/teaching staff ratio. - Number of faculty members who annually participate in professional development activities. - Employers' rating for department graduates. - Employers retention of hired graduates measured by years on the job.
Objective 1.1. strengthen applied economics skills in both B.Sc. and M.Sc. graduates.	Periodically Review the B.Sc. and M.Sc. programs to improve provision of needed skills in applied economics.	
Objective 1.2. decrease the ratio of students to teaching staff (target?).	Retain and recruit highly qualified teaching and research staff	
Objective 1.3. increase participation of teaching staff in professional development activities annually.	- Provide remuneration for participation in professional development activities. - explicitly tie participation in such activities to annual evaluation reports.	

Objective 1.4. produce graduates with a wide scope and a world view.	- provide space and facilities for students' extramural activities. - Gauged employers' opinion about graduates.	
Objective 1.5. provide the local and regional communities with highly qualified graduates who can help solving problems of the agricultural economy.	- Recruit and retain students who are high achievers in college entry exams through competitive grants. - increase the number of M.Sc. graduates annually by 10% and the number of B.Sc. graduates by 15%. - Periodically gauge labour market skill needs and requirements in fresh graduates.	
Goal 2: To solve Saudi agricultural economy problems through research, consultancies, and education. **Objective 2.1.** maintain and extend consultative engagement of staff members in relevant ministries and administrations in the fields of food , agriculture, environment, and policy making.	Provide agribusinesses and agencies with information about available talents and resources in the department.	- Number of staff members with active consultative part-time or full time assignment. - - Number of consultancies assigned to the department by external organizations. - - Number of commissioned research reports produced by the department. - - Number/size of research grants offered to department staff.
Objective 2.2. produce quality and relevant research that contribute toward solving problems related to the performance of the agricultural economy.	- Strengthen linkages with agribusinesses to explore cooperative research programs.	

Objective 2.3. seek to establish a specialized applied economics and strategic studies research center.	- Involve the consultative councils the planning, establishment, and funding efforts for the research center.	
Objective 2.4. showcase department personnel skills and expertise to the relevant public and private sector establishments.	- Keep the department's website up-to-date with relevant information.	
Goal 3: To participate in scientific gatherings in order to cope with, adopt, and adapt recent research frontiers to the Saudi environment. **Objective 3.1.** increase participation rates by faculty in local, regional, and international conferences.	- provide financial and administrative support for contributively participation in conferences.	- Number of faculty members who have participated in conferences. - Number of contributions to conferences: posters, papers, and active participation in proceedings. - Number of faculty who were invited speakers in regional and international conferences. - Number of collaborative agreements and memoranda of understanding signed with regional or international organizations.
Objective 3.2. disseminate research findings to agribusinesses, governmental agencies, community organizations to enhance decision their making.	- Prepare and distribute brochures, reports, journal research articles, press articles, newsletters to relevant agribusiness establishments and agencies.	
Objective 3.3 Establish national and international linkages with research organizations to create expand collaborative opportunities.	- Invite guest speakers, administrators of research organizations to visit the department. - Send faculty to international institutions for professional improvement and collaborative endeavours.	
Goal 4: To raise societal awareness regarding importance and applications of the agricultural economics discipline.	- Seek relevant community leaders input regarding how they view the department's role in the community.	- Stakeholders' satisfaction with department's vision, mission, and goals. - - Number of events (lectures, seminars,

Objective 4.1. periodically review department's vision, mission, and goals in relation to community service.		conferences and others) organized to the general public. - Consultative boards satisfaction with department's performance in community service aspects.
Objective 4.2. Maintain and increase community service activities annually.	- Organize conferences, seminars, symposia geared toward presenting the role of agricultural economics in the society. - Strengthen the role of the consultative advisory board.	
Goal 5: To promote an environment that is conducive to creativity through the provision of relevant courses, programs, training, and human cadres. **Objective 5.1.** introduce and adopt practices of teaching assessment.	Provide incentives and rewards for creativity in teaching and research.	- Competitiveness of department's salaries with comparable national and regional institutions. - Number of citations in research and teaching received by department's staff. - Students' rating for orientations programs. - Staff and students satisfaction with department's facilities and equipment.
Objective 5.2. keep department's computational environment and facilities up-to-date.	Involve staff members, stakeholders, and students in decision making regarding programs and developments.	
Objective 5.3. provide better orientation and preparation programs for new students.	- Periodically review orientation program to make sure it meet students needs. - Survey students to seek their opinion on how to improve the orientation program.	

D. Program Structure and Organization

1. Program Description:

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

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

Curriculum Study Plan Table

Year		Course Code	Course Title	Required or Elective	Credit Hours	College or Department
Prep Year	Semester1	ENGL 140	English Language Skills (1)	Required	8	Arts/English
		MATH 140	Introduction to Mathematics	Required	2	Arts/English
		CT 140	Computer Skills	Required	3	Science/Math
		MC 140	Communication Skills	Required	2	Science/Math
	Semester2	ENGL 150	English Language Skills (2)	Required	8	Mass communication
		MATH 150	Mathematics (2) Calculus	Required	3	Health sciences
		CI 140	Learning, Thinking and Research Skills	Required	3	Education
		ENT 101	Entrepreneurship	Required	1	Computer science
		CHS 150	Health and Fitness	Required	1	Business
2nd Year	Semester1	PLPT 102	Principles of plant	Required	3	Food & Ag. Science
		SOSC 141	Introductory to Environmental Science	Required	2	Food & Ag. Science
		ZOO 103	Zoology	Required	4	Science/zoo.
		APEC 205	Principles of Agricultural Economics	Required	3	Food & Ag. Science
		FSN 202	Principles of Food Sciences	Required	2	Food & Ag. Science
			University requirement	Required	2	
			University requirement	Required	2	
	Semester2	PPS 201	Principles of Plant Production	Required	3	Food & Ag. Science
		STAT 100	Introduction to Statistics	Required	3	Science/stat.
		APEC 209	Agricultural and food marketing	Required	3	Food & Ag. Science
		ECON 101	Principles of Microeconomics	Required	3	Business/Economics
		100 RES	Introduction to Operations Research	Required	4	Science/stat.
		ANPR 105	Intro. to Animal Production Systems	Required	2	Food & Ag. Science
3rd Year	Semester 1	ECON 102	Principles of Macroeconomics	Required	3	Business/Economics
		APEC 216	Applied quantitative analysis	Required	3	Food & Ag. Science
		APEC 217	Firms Management	Required	3	Food & Ag. Science
		APEC 218	Price Analysis	Required	2	Food & Ag. Science
		APEC 219	Economics of Environment	Required	2	Food & Ag. Science
			University requirement	Required	2	
			Course optional from group B	Elective	3	
	Semester 2	APEC 330	Analysis of economic data	Required	3	Food & Ag. Science
		APEC 331	Computer in Applied Economics	Required	2	Food & Ag. Science
		APEC 333	Economics of Natural Resources	Required	3	Food & Ag. Science
		ECON 211	Economics of Money and Banking	Required	3	Business/Economics
			Free courses	Elective	2	
			University requirement	Required	2	
			Course optional from group A	Elective	2	
4th Year	Semester 1	APEC 405	Agricultural Production Economics	Required	3	Food & Ag. Science
		APEC 407	Economic of Agricultural Finance	Required	2	Food & Ag. Science

Year		Course Code	Course Title	Required or Elective	Credit Hours	College or Department
		APEC 408	Agricultural Policy and Planning	Required	3	Food & Ag. Science
		APEC 409	Feasibility Study of Agricultural Projects	Required	3	Food & Ag. Science
			optional from group A	Elective	4	
			Free courses	Elective	2	
	Semester 2	APEC 410	Field Training (Agri. Economics)	Required	3	Food & Ag. Science
		APEC 404	Seminar in Research Methodology	Required	3	Food & Ag. Science
			Free courses	Elective	2	
			optional from group A	Elective	6	
			optional from group B	Elective	3	

Department optional requirements (group A): Students choose 12 credits from this group

Course Code	Course Title	Credit Hours
APEC 211	Development Economics	2
APEC 321	Economics of food consumption	2
APEC 322	Wholesale and retail trade of agricultural commodities	3
APEC 324.	Firms Records Analysis	2
APEC 327	The efficiency of marketing functions	3
APEC 421	Marketing Cooperative	3
APEC 324	The economics of eco-tourism	2
APEC 424	International trade of agricultural products	2
APEC 403	Special Studies	2
APEC 214	Systems of food markets	2
APEC 426	water economics	2

Optional requirements (Group B) Students choose 6 credits from this group

Course code	Course title	Hours Credit
BUS 241	Marketing Management	3
MGT 101	Principles of Business Management	3
ACCT 201	Principles of Accounting & Reporting	3
PPS 403	Green house production	2
PLPT 201	Principles of plant protection	3
ANP 319	Poultry production	3
AGEN 439	management and development of Irrigation water resources	2
AGEXT 201	Principles of Extension	2
SOSC 341	Water and Soil Pollution	3

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

Summary of practical, clinical or internship component required in the program. Note: see Field Experience Specification
a. Brief description of field experience activity The program includes a cooperative training course (APEC 400) –under way to be implemented in summer

2014- and a practical training course (APEC 410) - the current one. In the practical training course students are assigned to a company in order to get a partial working experience through one-day weekly visits through the whole semester. They are assigned to two co-supervisors one from the company and the other is a faculty member. At the end of the training period each student is expected to present a full report in addition to periodic reports to the faculty supervisor.
b. At what stage or stages in the program does the field experience occur? (eg. year, semester) At the end of the third year, 2nd semester.
c. Time allocation and scheduling arrangement. (eg. 3 days per week for 4 weeks, full time for one semester) One day per week for a full semester (14 weeks).
d. Number of credit hours (if any) 3credit hours

3. Project or Research Requirements (if any)

Summary of any project or thesis requirements in the program. (Other than projects or assignments within individual courses) (A copy of the requirements for the project should be attached.)
a. Brief description The curriculum contains a mandatory senior project titled "Research **and** Discussion." (APEC 404) The student is required to conduct a research paper on a given issue. Students are expected to choose a problem under supervision from an assigned faculty member. Students are expected to gather some data relevant to their problem, conduct some statistical (descriptive or inferential) analysis or use some programming technique, present their finding and write a research report which is expected to show synthesis and suggest some solutions and recommendations. At the end of the research project a student is expected to submit a full written report as well as orally present his research findings to department faculty and peers.
b. List the major intended learning outcomes of the project or research task. The following are the expected learning outcomes of the senior design project: • Demonstrate ability to apply knowledge of basic applied economics concepts. • Show ability to perform analysis and evaluation of applied economic problems. • Demonstrate ability of networking and working with others. • Demonstrate oral and written communication skills. • Demonstrate integrity and adherence to ethical standards.
c. At what stage or stages in the program is the project or research undertaken? (e.g. year, semester) In the fourth year, 2nd semester.
d. Number of credit hours (if any) Three (3) credit hours
e. Description of academic advising and support mechanisms for students. Each student will be assigned an academic advisor who will act as a mentor, providing academic and career advice, and general counseling. Each student will be required to meet his advisor periodically on a weekly basis. In addition, the department provides support to the students in the form of seminars, and lectures in the field of conducting research and the different research methodologies. The chairman is also available to meet the students and listen to their academic problems and concerns.
f. Description of assessment procedures (including mechanism for verification of standards) The student takes a written examination after completing the theoretical part of the course. The final

exam represents 40% of the student total grade as per university rules. Thus 60% of student grade is semester work which is made up of (i) in class written tests (usually 2-3 tests) at monthly intervals, (ii) graded periodic (weekly) homework assignments (iii) in class activity (either from assigned activities in the form of discussions, oral presentations, debates and/or from students participation each period through the semester).

Where applicable field assignments are utilized. Regarding the research work, in addition to the follow-up and evaluation by the supervisor, the student is required to present his research work in a seminar attended by all the faculty members who evaluate is work and presentation. Verification involves cross checking students' grades by peers.

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

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

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

On the table below are the five NQF Learning Domains, numbered in the left column. For Program Accreditation there are four learning outcomes required for knowledge and cognitive skills. The other three domains require at least two learning outcomes. Additional learning outcomes are suggested.
First, insert the suitable and measurable learning outcomes required in each of the learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each program learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process.

LO #	NQF Learning Domains and Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge** *Upon successful completion of the program students will be able to:*		
1.1	Define the domain of the science of agricultural economics by identifying at least 3, 5, and 6 of its main branches in levels 1, 3, and 7 respectively.	- Lectures. - Tutorials. - Field visits.	- In class written interterm tests (2-3) spaced at monthly intervals. - A final exam. - Weekly homework assignments. - In class oral presentations.
1.2	Describe the basic principles and theoretical concepts in agricultural economics by achieving a minimum of 80% on a quiz covering demand, supply, utility, production, and cost theories.	- Lectures. - Tutorials. - Discussions.	- In class written interterm tests (2-3) spaced at monthly intervals. - A final exam. - Weekly homework assignments.
1.3	Demonstrate skills regarding the information technology aspects (MS Excel, PowerPoint, and word processors) in relevance to agricultural economics by scoring an average of at least 70% on weekly assignments.	- Lectures. - Tutorials. - Practical sessions (computer lab).	- In class written interterm tests (2-3) spaced at monthly intervals. - Weekly in-lab assignments. - Homework assignments.
1.4	Outline issues related to the agricultural sector: natural resource policies, environmental economics, planning and policy, cooperative marketing, ecotourism, international trade, water economics, and rural community development by scoring at least 80% on questions related to these issues.	- Lectures. - Tutorials. - Discussions.	- In class written interterm tests (2-3) spaced at monthly intervals. - A final exam. - Weekly homework assignments. -
1.5	Describe quantitative (econometric and linear programming) modeling techniques and computer programs used in data analysis by scoring at least 80% of the grade on a relevant final exam item.	- Lectures. - Tutorials. - Practical sessions (computer lab).	- In class written intraterm tests (2-3) spaced at monthly intervals. - A final exam. - Weekly homework assignments.
2.0	**Cognitive Skills** *Upon successful completion of the program students will be able to:*		
2.1	Perform basic algebra and introductory calculus operations in the context of applied economic analysis and optimization as judged by obtaining at least 80% on an exam question specifically designed to measure this outcome.	- Lectures. - Tutorials.	- In class written intraterm tests (2-3) spaced at monthly intervals. - Quizzes - Weekly homework assignments.
2.2	Collect data and information, perform analysis using economic concepts, interpret results, and draw inferences or conclusions by obtaining at least 75% on graduation project evaluation.	- Lectures. - Tutorials. - Practical sessions (computer lab).	- In class written intraterm tests (2-3) spaced at monthly intervals. - Weekly homework assignments.
2.3	Explain microeconomic theoretical concepts at the preliminary level, including: producer theory, consumer theory, how markets work and prices are	- Lectures. - Tutorials. - Discussions.	- In class written intraterm tests (2-3) spaced at monthly intervals. - Weekly homework assignments.

	formulated, and welfare theory, as shown by a minimum score of 75% on a relevant question.		
2.4	Construct, read, and explain graphical and tabular representation of data; a minimum of 75% score on a relevant question is expected.	- Lectures. - Tutorials. - Discussions.	- In class written intraterm tests (2-3) spaced at monthly intervals. - Weekly homework assignments. - In class presentations.
2.5	Apply concepts, approaches, and methods (regression and descriptive statistics) taught in various curricula to analyze commodity markets and economic data by obtaining at least 75% on the relevant component on graduation project evaluation.	- Lectures. - Tutorials. - Discussions.	- In class written intra-term tests (2-3) spaced at monthly intervals. - Weekly homework assignments.
2.6	Analyze and evaluate agribusiness problems and management decisions employing commonly used business/statistical software (such as MSExcel, Eviews, and SPSS) by obtaining at least 75% on the relevant component on graduation project evaluation.	- Lectures. - Tutorials. - Discussions.	- In class written intra-term tests (2-3) spaced at monthly intervals. - Weekly homework assignments. - In class presentations.
3.0	**Interpersonal Skills & Responsibility** *Upon successful completion of the program students will be able to:*		
3.1	Demonstrate the ability to work with others in groups towards a common goal by a minimum score of 75% on assigned group activities.	- Discussions. - Debates.	- Group assignments. - Team presentations.
3.2	Use ethical standards and show integrity regarding intellectual property rights.	- Lectures. - Discussions.	- Short essay assignments. - Term projects.
3.3	Demonstrate teamwork, leadership, and networking skills.	- Discussions. - Field visits.	- Group assignments. - Team presentations
3.4	Show ability to make decisions and bear consequences.		- Individual in-class assignments. - Short essays.
3.5	Illustrate good time-management skills.	- Lectures. - Discussions.	- In class oral presentations. - Written tests and exams.
4.0	**Communication, Information Technology, Numerical** *Upon successful completion of the program students will be able to:*		
4.1	Clearly communicate basic research results in oral form using presentation software, by scoring at least 75% on all components of the grading criteria when presenting their graduation project.	- Lectures. - Discussions. - Practical sessions (In class student oral presentations).	- In class oral presentations. - Oral presentation of graduation research project to faculty and peers.
4.2	Calculate various economic measures e.g., elasticities using formulae and relevant data by a minimum score of 75% on a relevant question.	- Lectures. - Tutorials.	- In class written intraterm tests (2-3) spaced at monthly intervals. - A final exam. - Weekly homework assignments.
4.3	Clearly communicate basic research results in writing form by scoring at least 75% on all components of the grading criteria on their graduation project.	- Lectures. - Tutorials.	- Assessment of final graduation research project by faculty on certain criteria.
5.0	**Psychomotor :N/A**		

F Learning Outcome Verb, Assessment, and Teaching Strategies and Suggestions

NQF Learning Domains	Suggested Verbs
Knowledge	list, name, record, define, label, outline, state, describe, recall, memorize, reproduce, recognize, record, tell, write
Cognitive Skills	estimate, explain, summarize, write, compare, contrast, diagram, subdivide, differentiate, criticize, calculate, analyze, compose, develop, create, prepare, reconstruct, reorganize, summarize, explain, predict, justify, rate, evaluate, plan, design, measure, judge, justify, interpret, appraise
Interpersonal Skills & Responsibility	demonstrate, judge, choose, illustrate, modify, show, use, appraise, evaluate, justify, analyze, question, and write
Communication, Information Technology, Numerical	demonstrate, calculate, illustrate, interpret, research, question, operate, appraise, evaluate, assess, and criticize
Psychomotor	demonstrate, show, illustrate, perform, dramatize, employ, manipulate, operate, prepare, produce, draw, diagram, examine, construct, assemble, experiment, and reconstruct

Suggested ***verbs not to use*** when writing measurable and assessable learning outcomes are as follows:

Consider	Maximize	Continue	Review	Ensure	Enlarge	Understand
Maintain	Reflect	Examine	Strengthen	Explore	Encourage	Deepen

Some of these verbs can be used if tied to specific actions or quantification.

Suggested assessment methods and teaching strategies are:

According to research and best practices, multiple and continuous assessment methods are required to verify student learning. Current trends incorporate a wide range of rubric assessment tools; including web-based student performance systems that apply rubrics, benchmarks, KPIs, and analysis. Rubrics are especially helpful for qualitative evaluation. Differentiated assessment strategies include: exams, portfolios, long and short essays, log books, analytical reports, individual and group presentations, posters, journals, case studies, lab manuals, video analysis, group reports, lab reports, debates, speeches, learning logs, peer evaluations, self-evaluations, videos, graphs, dramatic performances, tables, demonstrations, graphic organizers, discussion forums, interviews, learning contracts, antidotal notes, artwork, KWL charts, and concept mapping.

Differentiated teaching strategies should be selected to align with the curriculum taught, the needs of students, and the intended learning outcomes. Teaching methods include: lecture, debate, small group work, whole group and small group discussion, research activities, lab demonstrations, projects, debates, role playing, case studies, guest speakers, memorization, humor, individual presentation, brainstorming, and a wide variety of hands-on student learning activities.

Program Learning Outcome Mapping Matrix

Identify on the table below the courses that are required to teach the program learning outcomes. Insert the program learning outcomes, according to the level of instruction, from the above table below and indicate the courses and levels that are required to teach each one; use your program's course numbers across the top and the following level scale. Levels: I = Introduction P = Proficient A = Advanced

	Course Offerings **NQF Learning Domains and Learning Outcomes**	**APEC205**	**APEC209**	**APEC211**	**APEC214**	**APEC216**	**APEC217**	**APEC218**	**APEC219**	**APEC321**	**APEC322**	**APEC324**	**APEC327**	**APEC330**
1.0	**Knowledge**	I	I	I	I	I	I	I	I	P	P	P	P	P
1.1	Define the domain of the science of agricultural economics, identify its main branches, characterize its relation to other branches of agriculture, and recognize the role of the agricultural economy and its impact on the whole economy.	✓		✓			✓							
1.2	Describe the basic principles and theoretical concepts in agricultural economics and general economics.	✓			✓					✓				
1.3	Demonstrate skills regarding the information technology aspects (computational, programming, processing facilities) in relevance to agricultural economics.													✓
1.4	Outline issues related to the agricultural sector, natural resource policies, and rural community development.			✓					✓				✓	
1.5	Describe quantitative (econometric and programming) modeling techniques and computer programs used in data analysis.					✓								✓
2.0	**Cognitive Skills**													
2.1	Perform basic algebra and introductory calculus operations in the context of applied economic analysis and optimization.													
2.2	Collect data and information, perform analysis using economic concepts, interpret results, and draw inferences or conclusions.							✓				✓		
2.3	Explain microeconomic theoretical concepts at the preliminary level, including: producer theory, consumer theory, how markets work and prices are formulated, and welfare theory.	✓	✓		✓					✓	✓		✓	
2.4	Construct, read, and explain graphical and tabular representation of data.							✓						
2.5	Apply concepts, approaches, and methods (regression and descriptive statistics) taught in various curricula to analyze commodity markets and economic data.							✓						
2.6	Analyze and evaluate agribusiness problems and management decisions employing commonly used business/statistical software						✓	✓						

	(such as MSExcel, Eviews, and SPSS).													
3.0	**Interpersonal Skills & Responsibility**													
3.1	Demonstrate the ability to work with others in groups towards a common goal.		✓											
3.2	Use ethical standards and show integrity regarding intellectual property rights.													
3.3	Demonstrate teamwork, leadership, and networking skills.													
3.4	Show ability to make decisions and bear consequences.													
3.5	Illustrate good time-management skills.													
4.0	**Communication, Information Technology, Numerical**													
4.1	Clearly communicate basic research results in oral, written and graphical form, using word processing and presentation software.													
4.2	Calculate various economic measures e.g., elasticities using formulae and relevant data.											✓		
4.3	Estimate certain economic relationships using statistical software.													
5.0	**Psychomotor**													

Cont.: Program Learning Outcome Mapping Matrix

	Course Offerings **NQF Learning Domains and Learning Outcomes**	**APEC331**	**APEC333**	**APEC401**	**APEC403**	**APEC404**	**APEC405**	**APEC407**	**APEC408**	**APEC409**	**APEC410**	**APEC421**	**APEC423**	**APEC424**	**APEC426**
1.0	**Knowledge**	P	P	A	A	A	A	A	A	A	A	A	A	A	A
1.1	Define the domain of the science of agricultural economics, identify its main branches, characterize its relation to other branches of agriculture, and recognize the role of the agricultural economy and its impact on the whole economy.	✓							✓	✓		✓	✓	✓	✓
1.2	Describe the basic principles and theoretical concepts in agricultural economics and general economics.						✓	✓	✓	✓			✓	✓	✓
1.3	Demonstrate skills regarding the information technology aspects (computational, programming, processing facilities) in relevance to agricultural economics.												✓		
1.4	Outline issues related to the agricultural sector, natural resource policies, and rural community development.		✓		✓				✓	✓		✓	✓	✓	✓
1.5	Describe quantitative (econometric and programming) modeling techniques and computer programs used in data analysis.					✓									
2.0	**Cognitive Skills**														

2.1	Perform basic algebra and introductory calculus operations in the context of applied economic analysis and optimization.						✓						✓		
2.2	Collect data and information, perform analysis using economic concepts, interpret results, and draw inferences or conclusions.			✓		✓									
2.3	Explain microeconomic theoretical concepts at the preliminary level, including: producer theory, consumer theory, how markets work and prices are formulated, and welfare theory.						✓						✓		✓
2.4	Construct, read, and explain graphical and tabular representation of data.		✓												
2.5	Apply concepts, approaches, and methods (regression and descriptive statistics) taught in various curricula to analyze commodity markets and economic data.	✓	✓			✓									
2.6	Analyze and evaluate agribusiness problems and management decisions employing commonly used business/statistical software (such as MSExcel, Eviews, and SPSS).					✓		✓			✓				
3.0	**Interpersonal Skills & Responsibility**														
3.1	Demonstrate the ability to work with others in groups towards a common goal.			✓							✓				
3.2	Use ethical standards and show integrity regarding intellectual property rights.				✓	✓									
3.3	Demonstrate teamwork, leadership, and networking skills.			✓		✓					✓				
3.4	Show ability to make decisions and bear consequences.					✓									
3.5	Illustrate good time-management skills.					✓					✓				
4.0	**Communication, Information Technology, Numerical**														
4.1	Clearly communicate basic research results in oral, written and graphical form, using word processing and presentation software.			✓	✓	✓									
4.2	Calculate various economic measures e.g., elasticities using formulae and relevant data.														
4.3	Estimate certain economic relationships using statistical software.					✓									
5.0	**Psychomotor: N/A**														

5. Admission Requirements for the program

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

6. Attendance and Completion Requirements

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

E. Regulations for Student Assessment and Verification of Standards

What processes will be used for verifying standards of achievement (eg check marking of sample of tests or assignments? Independent assessment by faculty from another institution) (Processes may vary for different courses or domains of learning.) The program plans to implement the following two processes in the next academic year: • Sample of tests will be checked. • Independent assessment from another institution.

F Student Administration and Support

1. Student Academic Counselling

Describe the arrangements for academic counselling and advising for students, including both scheduling of faculty office hours and advising on program planning, subject selection and career planning (which might be available at college level). • Each faculty will be assigned a group of students for counselling and advice. A student will be required to meet his academic advisor at least twice a semester, the first visit being before the registration. • Each faculty member will be asked to post his office hours during which a student can visit for receiving counselling and advice. • A brochure describing suggested student study plan is prepare and distributed to student upon enrolment in department.

2. Student Appeals

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

G. Learning Resources, Facilities and Equipment

1a. What processes are followed by faculty and teaching staff for planning and acquisition of textbooks, reference and other resource material including electronic and web based resources? • The requirements of text book and other materials for teaching are identified by the instructor teaching the course. • The instructor's suggestions are reviewed by the Undergraduate Committee, who may seek the opinion of the other faculty members. • The instructor proposing the text book for a course, is asked to review at least two text books on

the subject and submit justifications for the chosen text book.

- The department requests the Purchasing department to procure the text books selected by the department.
- The central library maintains an electronic library which include the main scientific journals and e-resources.
- The department maintains a resource room which include various governmental publications.

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

- The requirements of computer programs and other materials for teaching are identified by the instructor teaching the course.
- The department requests the Purchasing department to procure the text books selected by the department.
- Periodically the department assesses the status of the computation facilities in the computer lab and faculty offices, accordingly updates are made.
- Smart classrooms are centrally maintained by Deanship of Electronic Transactions.

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

- Inspection copies of the textbooks which alignment with course outline.
- Evaluate the copies and approve the best textbooks.

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

- It is the responsibility of the undergraduate committee formed by the department to evaluate the adequacy of text books, and reference materials for each course. The undergraduate committee insures that the books are current and contents most of the topics covered in syllabuses.
- Survey distributed to students in the end of the class to evaluate textbooks and references with suggesting and feedback.

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

- The department requests the Purchasing Department to procure the text books selected by the department.

H. Faculty and other Teaching Staff

1. Appointments

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

- The department has an established process for recruiting new faculty members in the areas needed. The positions are advertised with the specific requirements of qualification and experience. The department's Recruitment Committee receives applicants' CVs. A preliminary screening process would be conducted to sort applicants who meet all requirements (The department has a policy of not offering a professorial rank to instructors without a doctoral degree in the discipline). CVs that pass the preliminary check would undergo an evaluation process that checks applicants' academic qualifications, experience in teaching, research record, and other skills. A verification process is performed to scrutinize published research listed in the applicant's CV. Further employment history may be cross checked if needed. Some of the applicant's referees would be contacted to discuss any issues raised by the

committee. The committee would then rank potential candidates based on teaching experience, research records, and other skills. A report would then be submitted to the department's chair and interviews would be conducted with the most qualified applicant. Eventually, the department's chair would submit the name of the successful candidate to the university to complete the hiring process.

2. Participation in Program Planning, Monitoring and Review

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

- The department conducts its affairs through a number of standing committees in the department; each committee is entrusted with some duties and responsibilities. The quality of program is reviewed by the Program Assessment Committee. The Undergraduate Committee looks after the undergraduate curriculum, and makes changes as and when necessary to maintain the currency of the program. All faculty members are distributed in the standing committees, so that all participate in the academic affairs of the department. All decisions of the department are discussed in the Department Council meeting for approval of the department.

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

- The advisory committee was established by the department to advise on various matters related to program development, improvement, and to respond on any issue raised by the department. The role of the committee is consultative; decision making remains the sole responsibility of the department's council. The committee is made up of industry practitioners with various academic backgrounds. A periodical meeting is held each semester to review recent developments and discuss departmental issues. Curriculum, students' learning outcomes and skills are among the main areas of advice. The committee members may also be contacted as per need to solicit their opinion on urgent matters that might arise.

3. Professional Development

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

a. Improvement of skills in teaching and student assessment?

- The Academic Development Deanship of the University holds periodical workshops on effective teaching, education technology, and better learning environment and on similar topic for the professional development of the faculty. In addition, the teaching staffs participate in external workshop. The attendance to these workshops is not mandatory. However, some of department faculty attended some internal and external workshops yearly with a percentage of 25% of department faculty.

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

- Through seminars and lectures/talks delivered by the invited experts from the academia and industries.
- Through conference attendance for which the University provides the support.
- Through collaboration with other universities and research centres.

4. Preparation of New Faculty and Teaching Staff

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

- A new faculty member will be given a copy of the Faculty Handbook that contains all information about the duties and responsibilities of the faculty, including the rights, privileges and code of conduct. For the first two semesters, he will be assigned multi-section courses which are co-ordinated and courses that are within his area of specialty. If necessary and desired, he will be assigned an experienced senior faculty member for receiving teaching help. His students' evaluation will be closely monitored to see that there is no problem with his teaching. He will be asked to attend the workshops on effective teaching and professional development conducted by the Academic Development Deanship of the University.

5. Part Time and Visiting Faculty and Teaching Staff

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

- The department, for the time being, relies fully on the full time faculty member. There is no plan to hire part time faculty members,

I. Program Evaluation and Improvement Processes

1. Effectiveness of Teaching

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

- A series of training programs in the form of lectures, workshops, brochures are organized throughout the year by the Skills Development Deanship aimed at introducing various applied aspects of learning theory, new teaching strategies, and assessment methods; old as well as new teaching staff is targeted by these programs.
- Instructors usually outline their teaching strategies as well goals and objectives of the course in the syllabus. These are supposed to be reviewed periodically to improve their effectiveness.
- Analysis of students' end-of-semester instructor-evaluations to emphasize strengths and address weaknesses.
- Consultancies/peer reviews with curriculum specialists within the institution.
- Stakeholders/employers feedback.

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

Faculty's skills will be evaluated through observation of their performance, expertise, student's evaluation and their own interests. When necessary, a faculty member is trained to perform a special function through seminars and workshops.

- Students' instructor/course evaluation for all courses at the end of each semester.
- Annual evaluation of faculty members by department chair.
- Course reports prepared by instructors at the end of each course.
- Comments/observations by department chair in an informal manner.

2. Overall Program Evaluation

a. What strategies are used in the program for obtaining assessments of the overall quality of the program and achievement of its intended learning outcomes:
(i) From current students and graduates of the program? The entry-level students are administered a locally developed skill-testing test to measure the level of skill and knowledge. On the other hand, the graduates are tested through a locally developed exit exam to measure of the level of attainment of the learning outcomes. There is also an exit interview with the graduates that is carried out to receive feedback on the program and their learning experience. The department reviews their concerns and suggestions for the improvement of the program and the method of teaching and learning.
(ii) From independent advisors and/or evaluator(s)?. University regulations requires that every five years, a team of independent evaluators should evaluate the program. Additionally the program occasionally invites experts to provide external evaluation to the program. On their site visit to the department, course files for all courses which contain samples of students' work will be made available. Such an assessment may also require inspection of laboratories, equipment, class rooms and interviews with faculty ,staff and students for a comprehensive evaluation of the program, facilities and the learning environment. The findings and recommendations of the evaluating team will be used for the improvement of the program. The most resent external evaluation was conducted in 2010 (see annex B.2).
(iii) From employers and/or other stakeholders. Beginning with the fifth year of the commencement of this new program, every five-year interval a comprehensive survey of the employers and alumni is carried-out to collect data and information on the attainment of the program's educational objectives and outcomes. Additionally, face-to-face exit interviews will be conducted with the graduating students to receive feedback on the program, delivery, learning experience and outcomes.

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	Stakeholders evaluation ratings of the Mission Statement and Objectives. (Average rating on how well the mission is known or the proportion of policy decisions that refer to the mission among criteria for the decision made on a five point scale)	4	3.72	4.5	5	The actual program score on this KPI was 3.73 and is short of both the internal and external benchmarks whose scores were 4.5 and 5 respectively. The actual was however close to the set target of 4. The program's new target is set at 4.5. A limited number and range of stakeholders have been surveyed and consulted in the process of formulating the mission. More work is needed to familiarize stakeholders with the mission and goals and to widen the scope of consultations to include relevant businesses and employers.	**1**
2	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.)Scale range 1-5.	4.5	4.33	4	3.27	It seems from the KPIs table above that the program has improved upon its own previous scores, did better than the Food Science Program, and is approaching the target.	**2**
3	Proportion of courses in which student evaluations were conducted during the year	95%	90%	100%	.	The program started with only 20% of the courses in academic year 2010-2011. A target of 90% was defined, based on internal and external Benchmarks. There more courses need to be added to reach a new target of 100%.	**3**
4	Ratio of students to teaching staff (Based on full time equivalents).	14 :1	16 :1	19 :1	14 :1	Based on program data the students/teaching staff ratio was at its maximum value (61:1) in AY2004/05. The ratio decreased to (19:1) in AY 2011/12 (Figure 4.2). The recent drop in the ratio can be explained by increasing staff numbers and decreasing student number (figure 4.1). The optimal ratio differs from program to program, based on program's characteristics. Even though the Food	**4**

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
						Science program has much more faculty than the applied economics program yet their enrolment is also higher which explains their higher ratio on this KPI. A new target is set at 12:1 in light of the institutional trend of emphasizing research and focusing on teaching quality rather than quantity.	
5	Students' overall on the quality of their courses (Average rating of students on a five-point scale on overall evaluation of courses is 2.0)	4	3.91	2.41	3.74	Students' overall on the quality of their courses indicates a good satisfaction level (3.91). The program improved upon its previous record (2.41) and did slightly better than the external benchmark (3.74). However, the program is yet to reach its target of 4.	**5**
6	Proportion of teaching staff with verified doctoral qualifications	0.87	0.82	0.78	0.50	The number of teaching staff with verified doctoral qualifications is 23, 13 of which are staff and 10 lecturers. The program has 5 lecturers with M. Sc. as the terminal degree. The program has improved upon its previous record and did much better that the external benchmark. About 7 TAs are abroad, in US institutions, at various stages in their Ph.D. As they come back the proportion is expected to even increase further.	**6**
7	Percentage of students entering programs who successfully complete first year. (80%)	0.90	0.80	0.78	0.80	Percentage of students entering programs who successfully complete first year is relatively high (0.80). This is probably due to the fact that many students aim to finish the first year with high GPA, so they can transfer to other colleges. As preceded students are dispatched to different colleges after the preparatory year based on GPA scores and not interest. That	**7**

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
						notwithstanding, the program made an improvement upon last year's score and is comparable to its external benchmark. A new target of 0.95 seems reasonable in light of the attained improvement.	
8	Proportion of students entering undergraduate programs who complete those programs in minimum time (4 years). That KPI was 16% in academic year 2012-2013	0.20	0.16	0.17	0.09	Proportion of students entering undergraduate program who complete those programs in minimum time (4 years), is different from year to year (see table 4.11). The most recent figure (actual) was (0.16) slightly lower than the previous record (internal benchmark) of (0.17) and moderately higher than the external benchmark (0.09).	**8**
9	Proportion of students who obtained 75% or better, on average for all courses taught, for academic year 2012-2013.	0.75	0.65	0.62	NA	Based on data available in table (4.15), for 2 semesters in academic year 2012-2013, the KPI (Code S4.8) is 65% on average for 2 semesters. Data was not available on external benchmark, but the target and new target benchmarks are 75% and 80% respectively. The data shows improvement between the two semesters; more data however is needed to establish a trend of improvement.	**9**
10	Ratio of students to administrative staff. for academic year2012-2013	60:1	70:1	65:1	20:1	Ratio of students to administrative staff is different from year to year as long as number of student enrolment changes while administrative staff (2 secretaries) did not change. The program plan to increase administrative, IT, and lab maintenance staff to meet the target ratio. The nature of the program as an applied social science program does not require the same staff needs as per the external benchmark program.	**10**

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
11	Student evaluation of academic and career counselling (Average rating on the adequacy of academic and career counselling on a five point scale).	3.5	3.57	2.85	4.5	Student evaluation of academic and career counselling (average rating on the adequacy of academic and career counselling on a five point scale), measured (3.57 out of 5) in academic year 2011-2012. The target KPI will increase it from 3.57 to 4. The actual benchmark represents an improvement upon previous year's record. However, it's still below the external benchmark.	**11**
12	Stakeholder evaluation of library services (Average rating on adequacy of library services on a five point scale) = (3.69)	3.5	3.69	2.5	3.7	For the academic year 2012/13, stakeholder evaluation of adequacy of library services as an average rating on a five point scale was (3.69). This is a reasonably good score which represents significant improvement upon previous year's score of (2.5). It is slightly less than the target benchmark and quite comparable to its counterpart from the Food Science department (3.7). The actual figure is reasonable in light of the fact that students' use of library services may have recently been declining. Web resources are probably the main culprit for less reliance on library services. Staff have more experience than students in using library services, and hence they seem to be more satisfied about library services. The target benchmark of 4 was formulated with that caveat in mind. As suggested earlier efforts should be directed toward establishing a small departmental reading room/library which hosts frequently used materials. The convenience of having such facility within reach may positively impact its use. Additionally, the current orientation programs should be enhanced to encourage	**12**

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
						more use of the library services by students. Furthermore, the teaching staff should refer students to use library services in their assignments.	
13	Number of accessible computer terminals per student for academic year 2012-2013	1:2	1:3	1:3	2:5	Number of accessible computer terminals per student (=50/139) for academic year 2012-2013, i.e. 1:3, and target is 1:1, based on external benchmark the ratio is 5:2. Last 5 years, the KPI was 1:7 but with having a new computer lab of 20 computers to support increasing program student number, the KPI improved to 1:3 as mentioned before.	**13**
14	Average overall rating of adequacy of facilities and equipment in a survey of teaching staff.(3.33)	5	3.33	4	5	Score on this KPI was (3.33) in academic year 2012-2013. The target is 4.5 and can be achieved by improving facilities and increasing its capability to support teaching staff needs. The process of acquisition of relevant software needs to be expedited. The program needs to find ways of including such needs in the budgetary outlays by the college; as preceded some budgetary itemization and allocation rules may preclude acquiring needed software by the program.	**14**
15	Proportion of teaching staff leaving the institution in the past year for reasons other than age retirement. (KPI =0)	0	0	0	0	Proportion of teaching staff leaving the institution in the past year, 20012-2013, for reasons other than age retirement, (KPI =0), show that teaching staff are satisfied with the program, even that the program development is attract more qualified teaching staff in future.	**15**
16	Proportion of teaching staff participating in professional development activities during the past year, 2012-2013, was 20/23 (80%)	90%	80%	85%	100%	The above table shows that the majority of teaching staff was participating in professional development activities during	**16**

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
						the past year. These development activities include training programs in the field of university teaching, research developments and methodologies, workshops, and scientific conferences in various hot issues. However, the ratio is still below the target benchmark, and the external benchmark represented by the ratio achieved by the Food Science Program of the KSU. As a step forward to reach the full participation ratio, the program aims to increase the ratio to 90% by encouraging the staff for more active participation in such activities.	
17	Number of refereed publication 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)	3	2	1.5	3.7	The table shows that there is an improvement in the performance of this standard compared with the pervious program, which is the internal benchmark. However, still the achievement is below the external benchmark represented by the performance of the Department of Food Science at the KSU. Furthermore, the actual benchmark is only 50% of the departmental target. However, the department is on track to achieve its goals target level.	**17**
18	Proportion of full time member of teaching staff with at least one refereed publication during the previous year.	100%	100%	100%	100%	The table shows that the target benchmark of this KPI has been fully met, and has been compatible with the internal, external and new target benchmarks.	**18**
19	Number of papers or reports presented at academic conferences during the past year per full time members of teaching staff.	15	12	10	20	The table shows a reasonable activity of the teaching staff in participating and presenting scientific papers and reports at academic conferences, and has shown improvement compared with the previously achieved level. However, the achievement is	**19**

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
						still below the target level, and represents 60% of that of the external benchmark. The program plans to enhance this KPI in the future by lowering the teaching load of faculty members, increase the financial support for participation, and organize more scientific events and academic conferences.	
20	Research income from external sources in the past year as a proportion of the number of full time teaching staff members.	400,000	307,000	300,000	845,000	Research fund provided to the program from external sources is considered to be very low compared with that acquired by the Department of Food Science at KSU, which represent the external benchmark. The amount is also less than the target amount. However, the nature of the study program does not require specific laboratory equipment, chemicals or any materials other than computing machines and software, primary and secondary data collection, photocopy, libraries and reference materials, as well as access to data and information sources. Thus, the required research fund is usually less than that of the external benchmark program.	**20**
21	Proportion of full time teaching and other staff actively engaged in community service activities, (90%)	95%	90%	95%	100%	Based on type of community service activities, the proportion of full time teaching and other staff actively engaged in community service activities in academic year 2012-2013 was 90%. Most of teaching staff are working as part time consultants at government agencies. The actual benchmark regarding this KPI is fairly high, but still falls short of the aspirations of the program, and the external benchmark. Non-Saudi staff members will	**21**

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
						be encouraged to join more consultancy and other community service activities.	

Analysis of KPIs and Benchmarks:

The table above presents 21 KPIs that were defined and measured for the applied economics program. For each KPI a target, a new target, an internal, and an external benchmark were defined as well. Additionally an analysis is provided for each KPI comparing it to the target, internal, and external scores.

An overall look evaluation of these KPIs reveals that in 4 instances the program either reached or surpassed its target; in the other instances the program was very close to the set target. This reveals that the target were reasonable and that more effort is needed or the program to reach some of its targets, new targets were set accordingly. In 10 instances the actual target showed an improvement upon its own previous records (internal benchmark); in most other instances the gap is not significant between the actual and the internal. This indicates that the program is improving over time in regards to previous records. In 8 instances the program either equalled the external benchmark or improved upon it; in 4 other instances the program was very close to the external benchmark. In summary the overall picture shows that the program is improving and fairly compares to its set internal and external benchmarks.

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.

Program Action Plan Table

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

No.	Recommendations	Action Points	Assessment Criteria	Responsible Person	Start Date	Completion Date
1	Acceleration of research activities and writing of text books by the staff members and ensure continuous evaluation of the program contents, quality and outcome.	- Encourage and reward textbook writing. - Mandate a new written textbook for each course.	- A textbook written/translated every year. - Increase average number of papers/faculty by one every year.	Permanent Committee of Scientific Research and committee of learning and teaching Department Head: Prof. Mahdi M. Al-Sultan.	Beginning of AY 2014/2015	ongoing
2	- Increase community and students awareness of the program mission and goals through appropriate channels like seminars workshops, and visits. Improve contact with stakeholders and keep them updated with changes in the program mission and goals through activating alumni and consultants committee.	- Include a presentation on mission and goals in orientation program. - Use part of first lecture in some classes to discuss mission and goals.	- Increased awareness rate in successive surveys.	Permanent committee of General Relation and Media. Department Head: Prof. Mahdi M. Al-Sultan.	Beginning of AY 2014/2015	ongoing
3	Establishment of a departmental library which would include the main sources of applied	- Approach dean to start the administrative processes (approval, space, staffing).	- Stages completed e.g.; approval obtained, funding, space allocated...etc.	Permanent committee of equipment and learning resources	Beginning of AY 2014/2015	End of AY 2018/2019.

No.	Recommendations	Action Points	Assessment Criteria	Responsible Person	Start Date	Completion Date
	economics, in addition to statistical data to support student and staff research. Data available in paper and electronic forms.	- List required material for the library and define whereabouts.		Department Head: Prof. Mahdi M. Al-Sultan.		
4	The culture of academic accreditation is going to be supported to be adopted among students and academic staff through department and programme activities. Establishing committees, and exist committees aims to adopt concepts and apply academic accreditation and use assessment tools for the improvement of the program over time.	- Increase lectures and seminars on accreditation for both students and staff. - Discuss the issue in selected classes in the beginning of semester.	- Increased awareness through successive surveys (on 1 to 5 scale).	Permanent committee of equipment and learning resources All committees' members and heads.	2nd semester 2014/15	ongoing
5	Develop workshops for academic staff to improve skills of using new technology as Smart Board, and improve course planning and contents to support learning outcomes.	- Organize workshops on new technology use. - Make technology use a requirement.	- Proportion of faculty who use technology in teaching.	Attending workshops became section of academic staff assessment yearly report submitted to department head. Department Head: Prof. Mahdi M. Al-Sultan.	Beginning of AY 2015/2016	ongoing
6	Having a regular meeting	- Organize a meeting at the	- Number of meetings	Department Head:	Beginning of	

No.	Recommendations	Action Points	Assessment Criteria	Responsible Person	Start Date	Completion Date
	with program students, orientation, specially at first week of each semester to show the students all academic benefits of the program. In addition to respond to student opinions regarding improving their skills and avoiding limitation from their point of views.	beginning of each semester.	organized, - Number of students who attend such meetings. - Students' evaluation of orientation program (on a scale of 1-5).	Prof. Mahdi M. Al-Sultan.	AY 2014/2015	ongoing
	Supporting department committees by skilled members to increase its efficiency in achieving goals. Consider activities by committee members as an academic activity for assessment staff members.	- Consider experience in the make-up of committees at the beginning of each AY. - Reconsider weight given to active participation in committees in annual faculty evaluation.	- Average experience (by years) of committee members.	Department Head: Prof. Mahdi M. Al-Sultan.	Beginning of AY 2014/2015	End of AY 2014/15.
	Selection of a more appropriate external benchmark	- Search the web for similar programs which use similar benchmarks. - Make contacts with similar programs to arrange for their use as external benchmarks.	- Have an international program (s) selected as a bench mark in the specified time	Prof. Ahmed Elhendy: head of Accreditation Committee.	2nd semester 2014/15	End of 1st semester 2015/16
	Encourage students to use library resources more often.	- Tie homework assignments with library use. - Refer students to library	- Proportion of students who use library each term.	Head of the Curriculum Committee.	1st semester 2014/15	ongoing

No.	Recommendations	Action Points	Assessment Criteria	Responsible Person	Start Date	Completion Date
		resources.				
	Improve lecture rooms, and equipment maintenance levels.	- Prepare a maintenance schedule for rooms with a logbook showing scheduled tasks and their frequency of implementation. - Seek to appoint a lab technician for the departmental computer labs.	- Staff and students' satisfaction about rooms and equipment. -	Department Head: Prof. Mahdi M. Al-Sultan.	Beginning of AY 2014/15	ongoing
	Expand Independents evaluation processes (for courses – checking students achievement as well for program –getting employers evaluation of grads)	- Design and implement a survey of employers on the quality of program graduates. - Introduce a system of cross-checking of students' achievements.	- Have a survey ready - Have a list of as well as contact addresses of employers.	Department Head: Prof. Mahdi M. Al-Sultan.	1st semester 2014/2015	ongoing
	Establish good contacts with industry and professional societies.	- Make a rooster of relevant businesses and societies. - Disseminate program essential data to these businesses highlighting potential program contributions. - Involve the advisory council in the process.	- Number of businesses contacted. - Number of businesses responding after follow-up.	Department Head: Prof. Mahdi M. Al-Sultan.	2nd semester 2014/2105	2ns semester 2015/16
	Seek better job and cooperative training placement for students	- Make a rooster of potential training sites. - Device a formal procedure for	- Number of businesses enlisted as training sites every year (number of agreements signed).	Department Head: Prof. Mahdi M. Al-Sultan.	2nd semester 2014/15	2nd semester 2015/16

No.	Recommendations	Action Points	Assessment Criteria	Responsible Person	Start Date	Completion Date
		communication and contractual setup with selected businesses. - If possible assign this mission to a staff member.				

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

Strengths:

- Excellent qualification of staff members.
- An institutional environment that is increasingly according more importance to quality management and assurance.
- Accumulated experience from previous accreditation efforts.
- Presence of a viable business community.

Recommendations for improvement:

- Good management monitoring of the action plan and strict adherence to set roadmaps.
- Increase external reviewers and advisory council involvement.
- Introduce a reward/recognition system for work achieved on schedule.
- Invite members of business community to give speeches/lectures to faculty/students.

Attachments:

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

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

Authorized Signatures

Dean / Program Chair	Name	Title	Signature	Date
Program Dean or Chair of Board of Trustees Main Campus				
Vice Rector				