



ATTACHMENT 2 (e)

Course Specifications

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

Course Specifications

APEC 426 - Water Resources Economics in Agricultural Sector

Dr. Safar H. Alqahtani
Instructor



Course Specifications

Institution: King Saud University	Date of Report; January 30,2104
College/Department : Food and Agricultural Science / Agricultural Economics	

A. Course Identification and General Information

1. Course title and code: APEC 426 - Water Resources Economics in Agricultural Sector			
2. Credit hours: 2 Credits			
3. Program(s) in which the course is offered. (If general elective available in many programs indicate this rather than list programs) This is an elective course offered for agricultural economics program			
4. Name of faculty member responsible for the course Dr. Safar H. Alqahtani			
5. Level/year at which this course is offered: level 5, 6, and 8			
6. Pre-requisites for this course (if any) APEC 333: Natural Resources Economics			
7. Co-requisites for this course (if any) N/A			
8. Location if not on main campus N/A			
9. Mode of Instruction (mark all that apply)			
a. Traditional classroom	<input checked="" type="checkbox"/>	What percentage?	<input type="text" value="100"/>
b. Blended (traditional and online)	<input type="checkbox"/>	What percentage?	<input type="text"/>
c. e-learning	<input type="checkbox"/>	What percentage?	<input type="text"/>
d. Correspondence	<input type="checkbox"/>	What percentage?	<input type="text"/>
f. Other	<input type="checkbox"/>	What percentage?	<input type="text"/>
Comments: APEC 426 is an elective course that explores water economic theories. Mode of instruction is a traditional lecture – class discussion. Students are required to access online activities posted in the LMS. Term paper is required either in individual or in small group, the results of the students term papers are discussed in classroom.			



B Objectives

<p>1. What is the main purpose for this course? Identify water as natural resource and its scarcity concept from economic point of view, In addition to water balance between demand and supply of water. Estimating demand for water as derived demand and its value of marginal product (VMP). The loss of water as the difference between plant need of water and its actual use. Policies of optimal use of water including rationing and water pricing for long and short run.</p>
<p>2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)</p> <p>1- More application on economic theory. 2- Update the course contents 3- More online activities which posted in the LMS.</p>

C. Course Description (Note: General description in the form to be used for the Bulletin or handbook should be attached)

1. Topics to be Covered		
List of Topics	No. of Weeks	Contact Hours
1. Syllabus discussion	0.5	1
2. Introduction to Water Resources Economics	0.5	1
3. Water economics value	1	2
4. Water Demand and supply analysis	3	6
5. Water market analysis	2	4
6. water management	3	6
7. International and local water law	2	4
8. Water economic efficiency for agricultural irrigation	2	4
Total	14	28

2. Course components (total contact hours and credits per semester):						
	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	28 hours	N/A	N/A	N/A	N/A	28 hours
Credit	N/A	N/A	N/A	N/A	N/A	2 Credits



3. Additional private study/learning hours expected for students per week.

0.0

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

Course 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, assessment, and teaching.

The **National Qualification Framework** provides five learning domains. Course learning outcomes are required. Normally a course has should not exceed eight learning outcomes which align with one or more of the five learning domains. Some courses have one or more program learning outcomes integrated into the course learning outcomes to demonstrate program learning outcome alignment. The program learning outcome matrix map identifies which program learning outcomes are incorporated into specific courses.

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

First, insert the suitable and measurable course learning outcomes required in the appropriate 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 course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. **Fourth**, if any program learning outcomes are included in the course learning outcomes, place the @ symbol next to it.

Every course is not required to include learning outcomes from each domain.



	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Define and describe water demand and supply estimation	Lecture- discussion	Written test
1.2	Outline water specification as natural resources	Lecture- discussion	Written test
2.0	Cognitive Skills		
2.1	Create and design a subject to be analyzed	Preparing subject related to international	report
2.2	Analyze and write scientific research	Class discussion	report
3.0	Interpersonal Skills & Responsibility		
3.1	Illustrate and choose team work group	Class discussion	report
3.2	evaluate presentation training	Class discussion	Presentation
4.0	Communication, Information Technology, Numerical		
4.1	Calculate, interpret, and assess various economic water policy models	Class discussion	Homework assignments
4.2	Demonstrate using LMS	Class Tutorials	Homework assignment
5.0	Psychomotor		
5.1			
5.2			

Suggested Guidelines for Learning Outcome Verb, Assessment, and Teaching

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
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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.

5. Schedule of Assessment Tasks for Students During the Semester			
	Assessment task (e.g. essay, test, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	First major examination	Week 5	15%
2	Second major examination	Week 12	15%
3	Homework and take home exam	Week 1-15	20%
4	Attendance and participation	Week 1-15	10%
5	Final examination	Week 16	40%
	Total		100%



D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

The instructor is available for student consultation and academic advice as follows:

Sunday: 11-12 AM and 1-2PM

Monday- Wednesday: 11-12 AM

Email: safark@ksu.edu.sa

Office number: 4678386

E. Learning Resources

1. List Required Textbooks

1.1. AlKantani, S.H., and S. Ismaiel, Water resource economics and management: basic and application, King Saud University, 2012

2. List Essential References Materials (Journals, Reports, etc.)

N/A

3. List Recommended Textbooks and Reference Material (Journals, Reports, etc)

3.1. Nicolas, S. , and A. Sabbaghi. Economics of Water Resources: from Regulation to Privatization,1997.

4. List Electronic Materials (eg. Web Sites, Social Media, Blackboard, etc.)

4.1. Arab organization site

5. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

N/A

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access etc.)

1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)

1.1. Classroom with 25 seating capacity



2. Computing resources (AV, data show, Smart Board, software, etc.) 2.1. Smart board 2.2. White and black board 2.3. IPodium (overhead projector)
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list) N/A

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching 1.1. On- line student evaluation
2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor N/A
3 Processes for Improvement of Teaching 3.1. Using course evaluation results 3.2 Attending teaching training courses manage by King Saud University
4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution) N/A



5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.

- 5.1. Reviewing students evaluation
- 5.2. Updating teaching materials periodically

Faculty or Teaching Staff: Dr. Safar H. Alqahtani

Signature: _____

Received by: _____

Date Report Completed: January, 30, 2014

Dean/Department Head

Signature: _____

Date: _____