



ATTACHMENT 2 (e)

Course Specifications

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

**Course Specifications
(CS)**

ANPR 320: Dairy Cattle Production

**Dr. Moez Ayadi
Instructor**



Course Specifications

Institution	King Saud University	Date of Report	25/12/2013
College/Department	College of Food Science and Agriculture/ Animal production Department		

A. Course Identification and General Information

1. Course title and code::	ANPR 320: Dairy Cattle Production		
2. Credit hours	2.0 Credits		
3. Program(s) in which the course is offered. (If general elective available in many programs indicate this rather than list programs)	Animal Production and other relevant agricultural and science programs.		
4. Name of faculty member responsible for the course	Dr. Moez Ayadi		
5. Level/year at which this course is offered	Seven level / Four year		
6. Pre-requisites for this course (if any)	ANPR 106, ANPR 220		
7. Co-requisites for this course (if any)	None		
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:			



B Objectives

<p>1. What is the main purpose for this course?</p> <ul style="list-style-type: none"> - Milk production in dairy cattle (World and locally). - Lactation physiology in dairy cattle. - Nutrition in dairy cattle. - Physiology of Reproduction in dairy cattle. - Mastitis in dairy cattle. - Factors affecting milk Production and udder health in dairy cattle. - Effect and management of heat stress.
<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> <ul style="list-style-type: none"> - Production of study guide for the course. - Posting of course material, power point presentation and teaching purposes.

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
Milk Production in Dairy Cattle	1	2
Dairy Traits and Udder Morphology	1	2
Hormonal control and milk ejection	1	2
Reproductive Function in Dairy Cattle	1	2
Nutrition in Dairy cattle	1	2
Heifer raising (Birth to Weaning)	2	4
Mastitis in Dairy Cattle (Prevention and Detection)	3	6
Factors affecting milk yield, composition and udder health	2	4
Body Condition Score in Dairy Cattle	1	2
Heat Stress in Dairy Cattle	2	4
	Total	30
2. Course components (total contact hours and credits per semester):		



	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	30	N/A	N/A	N/A	N/A	30
Credit	2	N/A	N/A	N/A	N/A	2 Credits

3. Additional private study/learning hours expected for students per week. None	<input type="text"/>
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4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy
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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 the concepts of dairy traits and udder morphology.	Lecture-discussion	Written test
1.2	Define the reproductive tract of male and female cattle.	Lecture-discussion	Written test
1.3	Describe ovulation, artificial insemination and heat synchronization.	Lecture-discussion	Written test
1.4	Outline the calf rearing and the importance of Colostrum	Lecture-discussion	Written test
1.5	Describe heat stress and milk production/conception.	Lecture-discussion	Written test
1.6	Define factors affecting milk Production and udder health in dairy cattle.	Lecture-discussion	Written test
1.7	Define Mastitis, causes, treatment and prevention.	Lecture-discussion	Written test
2.0	Cognitive Skills		
2.1	Explain reasoning and logical thinking skills with respect to Dairy cattle breeding.	Group discussion	Rubric Assessment
2.2	Evaluate the knowledge related to commercial dairy farms husbandry in reference to improving milk production and conception rate.	Group discussion	Case Study
3.0	Interpersonal Skills & Responsibility		
3.1	Illustrate ability to express knowledge or ideas different from his and by other students.	Group discussion	Paper-pencil self-evaluation
3.2	Illustrate ability to think systematically to solve problems of interest to dairy industry.	Group discussion	Paper-pencil self-evaluation
4.0	Communication, Information Technology, Numerical		
4.1	Demonstrate using the worldwide web to retrieve information on dairy breeding and find answers to queries.	Small group discussion	Paper-pencil self-evaluation



4.2	Demonstrate professionalism in writing a report on a selected topic using correct format, style and language.	Small group discussion	Paper-pencil self-evaluation
5.0	Psychomotor		
5.1	N/A	N/A	N/A
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

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 Exam	4	15%
2	Second Exam	7	15%
3	Third Exam	10	15%
4	Seminar	12	15%
5	Final exam	15	40%
6		Total	100%
7			
8			

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 advise on the following days:

Office hours: 6 hr/week

Email: mayadi@ksu.edu.sa

Office number: 4693301 Mobile: 0547149746

Office: College of Agriculture, 2nd Floor, 68S044 New Build.

Students are welcome to call to set an appointment with the instructor.

E. Learning Resources

1. List Required Textbooks

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



- Prepared notes and power point presentation slides
3. List Recommended Textbooks and Reference Material (Journals, Reports, etc) <ul style="list-style-type: none"> - Journal of Dairy Science - Journal of Animal Science - Lactation and the Mammary Gland (Book) - Large Dairy Herd Management (Book)
4. List Electronic Materials (eg. Web Sites, Social Media, Blackboard, etc.) None
5. Other learning material such as computer-based programs/CD, professional standards or regulations and software. None

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.) <ul style="list-style-type: none"> - Lecture room with 25 student's seats, with blackboard, screen and audio-visual aids.
2. Computing resources (AV, data show, Smart Board, software, etc.) None
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list) None

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching <ul style="list-style-type: none"> - Students performance in class and during tests - Discussions with students - Students' evaluation of teaching
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<p>2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor</p> <ul style="list-style-type: none">- Self-assessment- Evaluation of teaching activities, objectives and effectiveness by colleagues and the Department
<p>3 Processes for Improvement of Teaching</p> <ul style="list-style-type: none">- Increased use of audio-visual aids in the classroom.- Monitoring of teaching activities by senior faculty members.- Continuous course updating
<p>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)</p> <ul style="list-style-type: none">- Developing standardized tests to check students' achievements.- Formulating a scholarly teaching strategy with respect to course design, improvement and assessment.
<p>5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.</p> <ul style="list-style-type: none">- Course is periodically reviewed both by the professor and Department.- Minor modifications (e.g., updates and limited additions or deletions) to the course may be made by the professor, whereas major modifications are introduced as necessary at the level of the Departmental board.- Consultation with external reviewers when necessary

Faculty or Teaching Staff: Dr. Moez AYADI

Signature: _____ **Date Report Completed:** _____

Received by: _____ **Dean/Department Head**

Signature: _____ **Date:** _____