



King Saud University

**College of Food and Agricultural Sciences
Department of Animal Production**

Program Learning Outcomes

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

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

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.

NQF 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