

Course: 35681 – ANIMAL BREEDING
(3 ECTS, 31 hours theoretical + 5 hours practical)
Degree: Veterinary Medicine

Department of Veterinary Medical Sciences

Learning outcomes: At the end of the course the student knows all the elements needed for a morphological evaluation of livestock species, and the main features of ethnography.

General subjects and acquired skills	Unit	Specific content	Hours
		<i>COURSE INTRODUCTION</i> <i>(TOT. 1 HOUR)</i>	Course generalities. Short description of the program. Recommended textbooks. Final exam evaluation. 1
<i>TOPICS ASSOCIATED TO ANIMAL PRODUCTION</i> <i>(TOT. 3 HOURS)</i> <i>(Acquire knowledge on function and role of animals in human society)</i>	<i>Animal domestication</i>	Definition of animal domestication. Modalities of animal domestication.	1
	<i>Scope of animal production</i>	World animal production. Advantages of animal production as source of food and services to human communities. Sustainability and criticalities of livestock production.	2
<i>SPECIES, SUBSPECIES. ANIMAL DESCRIPTION</i> <i>(TOT. 7 ORE)</i> <i>(Acquire the correct terminology to describe livestock animals)</i>	<i>Zootechnical terminology</i>	Zootechnical terminology: body planes. Differences between species and breed. Subspecies and breeds.	1
	<i>Zootechnical types</i>	Types in bovines, sheep, goats, equines, and swine. Concept of livestock beauty, merits, vices, and defects.	1
	<i>Traits and zoometry</i>	Traits classification. Concept and classification of habitus, temperament, and internal function. Body measures and indexes. Morphological and functional types.	2
	<i>Coats</i>	Coat classification in bovines, swine, equines, sheep, and goats. Coats particularities.	3
<i>ANIMAL BREEDS</i> <i>(TOT. 8 HOURS)</i> <i>(Acquire knowledge of morphological, productive, and functional characteristics of livestock animals)</i>	<i>Bovine breeds</i>	Functional bovine types. Dairy and beef specialized bovine breeds, dual purpose breeds.	4
	<i>Swine breeds</i>	Swine genetic types. Swine cosmopolitan and local breeds.	2
	<i>Ovine and caprine breeds</i>	Functional sheep and goat types. Milk and meat specialized, and dual purpose ovine and caprine breeds.	2

<p>MORPHOLOGICAL REGIONS AND ANIMAL GAITS (TOT. 6 HOURS) (Acquire knowledge on the different body regions and gaits in livestock animals)</p>	<p>Body regions</p>	<p>Head, neck, trunk, hind and fore limbs. Udder characteristics in farm animals. Morphological and functional evaluation.</p>	<p>4</p>
	<p>Gaits and limb evaluation</p>	<p>Livestock standing and resting poses. Animal gaits. Evaluation of hind and fore limbs.</p>	<p>2</p>
<p>LIVESTOCK PRODUCTION SYSTEMS (TOT. 6 HOURS) (Acquire knowledge related to milk and meat production in bovine and swine species)</p>	<p>Milk production</p>	<p>National, European, and world production. Housing systems. Milk composition. Lactation curve and (re)productive cycle in dairy cows. Colostrum.</p>	<p>3</p>
	<p>Meat production</p>	<p>Productive categories of beef breeds. Housing systems. Growth and slaughtering.</p>	<p>3</p>
<p>PRACTICAL ACTIVITIES (TOT. 5 HOURS) (Acquire knowledge on age estimation in cattle and horses; BCS in dairy cows)</p>	<p>Age estimation in cattle</p>	<p>Dental formula in cattle. Differences between deciduous and permanent teeth. Teeth chronology and incisors analysis.</p>	<p>2</p>
	<p>Age estimation in equine</p>	<p>Dental formula in equine. Differences between deciduous and permanent teeth. Teeth chronology and incisors analysis.</p>	<p>2</p>
	<p>BCS estimation</p>	<p>Definition of body condition score and its importance in dairy cows. Evaluation of BCS.</p>	<p>1</p>