Animal Feeding (3 UFC; 36 hours lesson + 6 practical hours)			
Course objectives: learn to estimate animal requirements and to formulate rations for each stage of animal growth or production. Learn to identify most common issues linked to a wrong diet formulation and to modify rations to improve yield performances and decrease pollutant emission.			
Lessons			
Subjects and achieved skills	**Themes**	**Subjects**	**Hours**
1. Feedstuffs Preservation (tot. 4H)	*Hay production & Ensiling process*	How to make good hays and silages. Methods of evaluation.	**4**
1. Cattle feeding (tot. 14H)	*Calves Weaning*	Colostrum quality and importance. How to develop the rumen. Weaning techniques and long term consequences.	**1**
	Heifers	Rationing. Long and short term consequences of nutritional issues.	**1**
	Dry cows	Feeding issues and consequences.	**1**
	Transition cow	Nutritional and feeding strategies to prevent ketosis & steatosys, hypocalcemia & hypomagnesaemia and to enhance immunity.	**1**
	Lactating cows	Feeding managements to improve milk production & composition, to decrease nitrogen excretion, to optimize body reserve mobilization and reproductive efficiency. Guidelines to improve fiber utilization, to prevent acidosis and milk fat depression. Precision feedings techniques.	**4**
	Improve milk quality	Feeding strategies for cheese making characteristics of milk. Feeding guidelines for DOP (Parmigiano Reggiano e Grana Padano) productions.	**2**
	Feeding techniques	Traditional techniques, automatic feeder, TMR. Automatic systems	**1**
	Beef cattle productive cycle	Dietetic guidelines for the adaptation of the new arrivals.	**1**
	Growing beef cattle feeding	Prevention of pathologies linked to low forage utilization	**1**

	Feeding and meat quality	Diet composition and meat characteristics.	**1**
2. Swine feeding (tot. 6 H)	*Gestating sow*	Evolution of the requirements during gestation. Importance of proper management of body reserve. Prevention of the common diseases	**1** **1**
	Lactating sow	Requirements definition and common feeds characterization. Concentrates formulation.	**1**
	Piglets, pre and post weaning	Principles. Concentrates formulation. Prebiotics, probiotics and additives to prevent gut pathologies.	**2**
	Growth and fattening	Feeding strategy to optimize meat quality. Feeding rules for DOP (Prosciutto Parma e S Daniele) production. Optimization of the diet to reduce pollutant.	**1**
4. Sheep and goats feeding (tot. 4H)	*Growing and productive stages*	Requirements definition and diet formulations. Feeding and milk quality	**2**
	Pasture	Pastures characteristics and techniques	**2**
5. Buffalo feeding (tot. 2 H)	*Lactating buffalo*	Digestion and behavior characteristics. Requirements definition and diets formulations. Feeding and milk quality.	**2**
6. Practical Activity (tot. 6 H)	*Ration formulation*	Dynamic and static rationing models utilization (CPM Dairy - Razionare)	**6**