General Information	
Academic subject	Animal husbandry eco-sustainable systems
Degree course	TUGEST
Curriculum	
ECTS credits	6 ECTS
Compulsory attendance	No
Language	Italiano

Subject teacher	Name	Mail address	SSD
	Surname		
	Giuseppe Marsico	giuseppe.marsico@uniba.it	AGR/19

ECTS credits details			
Basic teaching activities	4 ECTS frontal	2 ECTS exercises	
	lesson		

Class schedule	
Period	FIRST semester
Year	2017/2018
Type of class	Lecture- workshops

Time management	
Hours	150
In-class study hours	60
Out-of-class study hours	90

Academic calendar	
Class begins	2 nd october 2017
Class ends	26 th january 2018

Syllabus Prerequisites/requirements

Expected learning outcomes (according to Dublin Descriptors) (it is recommended that they are congruent with the learning outcomes contained in A4a, A4b, A4c tables of the SUA-CdS)

Knowledge and understanding

- Knowledge of the main zootechnical and faunistic systems for the production of raw materials (milk, meat, eggs and fish products); factors and parameters of quality; relationship between nutrition and quality of the various variability factors of qualitative aspects and quality products

Applying knowledge and understanding

- Ability to apply to the productions a systematic approach to the evaluation of quanto-qualitative aspects of animal production.
- Go back to the animal variability factors that determine qualitative characteristics of animal production and their temporal variability.
- Describe the qualitative characteristics and the structural organization of innovative animal production systems.

Making informed judgements and choices

- Ability to correctly orient the search for suitable solutions to modify the quanto-qualitative characteristics of animal production.
 - Properly adapt the appropriate means and procedures to

production. Communicating knowledge and understanding - Ability to report properly the procedures and technique behind the processes and phenomena that interact with the productions. Capacities to continue learning - Ability to deepen and update their knowledge about quantitative aspects of animal production. Contents Economic and environmental aspects of livestock farming in different environments. What species for each attitudes an each territory. The environment, the territory, ecosystems. Assessment of livestock load compatible with the environment. Breeding systems and technologies. Breeding of the main species of animals to the income an nod of faunistic breeding; Genetic improvement: the variability of quantitative characters (milk, meat, eggs, wool). Elements of populating genetics. Selection, Crossing, Blood Consanguinit Interspecific Hybridization and Mutation. Principles of animal nutrition: Chemical composition of the animal and animal organisms. Digestion of foods an metabolism. Chemical and nutritional evaluation of food Nutritional needs and rationing. Pastures and their ration use. Rationing. Course program Bibliography Bibliography Bibliography Bilitante G., Andrighetto I., Ramanzin M Fondamenti Zootecnica: Miglioramento Genetico, Nutrizione Alimentazione (Liviana Editrice) Borgioli E Alimentazione e Nutrizione Animale. E Edagricole. Borgioli E Miglioramento genetico degli animali in produzione zootecnica. Ed. Eda gricole Casanova P., Capacciolli A., Cellini L Appunti di Zoolog Venatoria e Gestione della Selvaggina (Polistampa, Firenze Marsico G., Tarricone S Cinghiali, Suini ed Ibridi. Gestion Allevamento e Produzioni. (Aracne Editrice): Marsico G Animali di interesse faunistico e venatori Allevamento e Gestione (Aracne Editrice).	production. Communicating knowledge and understanding - Ability to report properly the procedures and techniques behind the processes and phenomena that interact with the productions. Capacities to continue learning - Ability to deepen and update their knowledge about quantitative aspects of animal production. Contents • Economic and environmental aspects of livestock farming in different environments. What species for each attitudes and each territory. • The environment, the territory, ecosystems. Assessment of livestock load compatible with the environment. Breeding systems and technologies. • Breeding of the main species of animals to the income and nod of faunistic breeding; • Genetic improvement: the variability of quantitative characters (milk, meat, eggs, wool). Elements of population genetics. Selection, Crossing, Blood Consanguinity, Interspecific Hybridization and Mutation. • Principles of animal nutrition: Chemical composition of the animal and animal organisms. Digestion of foods and metabolism. Chemical and nutritional evaluation of foods. Nutritional needs and rationing. Pastures and their rational use. Rationing. Course program Bibliography • Balasini D. – Zootecnia Generale. Calderini Edagricole. 2003. • Bittante G., Andrighetto I., Ramanzin M Fondamenti di Zootecnica: Miglioramento Genetico, Nutrizione e Alimentazione (Liviana Editrice). • Borgioli E Alimentazione e Nutrizione Animale. Ed. Edagricole. • Borgioli E Miglioramento genetico degli animali in produzione zootecnica. Ed. Eda • gricole • Casanova P., Capacciolli A., Cellini L Appunti di Zoologia Venatoria e Gestione della Selvaggina (Polistampa, Firenze). Marsico G., Tarricone S Cinghiali, Suini ed Ibridi. Gestione, Allevamento e Produzioni. (Aracne Editrice); • Marsico G. – Animali di interesse faunistico e venatorio.		
Quantitative aspects of animal production. Contents Economic and environmental aspects of livestock farming i different environments. What species for each attitudes an each territory. The environment, the territory, ecosystems. Assessment livestock load compatible with the environment. Breedin systems and technologies. Breeding of the main species of animals to the income an nod of faunistic breeding; Genetic improvement: the variability of quantitativ characters (milk, meat, eggs, wool). Elements of population genetics. Selection, Crossing, Blood Consanguinit Interspecific Hybridization and Mutation. Principles of animal nutrition: Chemical composition of the animal and animal organisms. Digestion of foods an metabolism. Chemical and nutritional evaluation of food Nutritional needs and rationing. Pastures and their ration use. Rationing. Course program Bibliography Balasini D. – Zootecnia Generale. Calderini Edagricole. 200: Bittante G., Andrighetto I., Ramanzin M Fondamenti description of the control of the cont	Contents Economic and environmental aspects of livestock farming in different environments. What species for each attitudes and each territory. The environment, the territory, ecosystems. Assessment of livestock load compatible with the environment. Breeding systems and technologies. Breeding of the main species of animals to the income and nod of faunistic breeding; Genetic improvement: the variability of quantitative characters (milk, meat, eggs, wool). Elements of population genetics. Selection, Crossing, Blood Consanguinity, Interspecific Hybridization and Mutation. Principles of animal nutrition: Chemical composition of the animal and animal organisms. Digestion of foods and metabolism. Chemical and nutritional evaluation of foods. Nutritional needs and rationing. Pastures and their rational use. Rationing. Bibliography Bibliography		Communicating knowledge and understanding - Ability to report properly the procedures and techniques behind the processes and phenomena that interact with the productions. Capacities to continue learning
different environments. What species for each attitudes an each territory. The environment, the territory, ecosystems. Assessment livestock load compatible with the environment. Breedir systems and technologies. Breeding of the main species of animals to the income an nod of faunistic breeding; Genetic improvement: the variability of quantitativ characters (milk, meat, eggs, wool). Elements of population genetics. Selection, Crossing, Blood Consanguinit Interspecific Hybridization and Mutation. Principles of animal nutrition: Chemical composition of the animal and animal organisms. Digestion of foods an metabolism. Chemical and nutritional evaluation of food Nutritional needs and rationing. Pastures and their ration use. Rationing. Course program Bibliography Balasini D. – Zootecnia Generale. Calderini Edagricole. 200: Bittante G., Andrighetto I., Ramanzin M Fondamenti of Zootecnica: Miglioramento Genetico, Nutrizione Alimentazione (Liviana Editrice). Borgioli E Alimentazione e Nutrizione Animale. E Edagricole. Borgioli E Miglioramento genetico degli animali in produzione zootecnica. Ed. Eda gricole Casanova P., Capacciolli A., Cellini L Appunti di Zoolog Venatoria e Gestione della Selvaggina (Polistampa, Firenze Marsico G., Tarricone S Cinghiali, Suini ed Ibridi. Gestion Allevamento e Produzioni. (Aracne Editrice); Marsico G. – Animali di interesse faunistico e venatori Allevamento e Gestione (Aracne Editrice).	different environments. What species for each attitudes and each territory. The environment, the territory, ecosystems. Assessment of livestock load compatible with the environment. Breeding systems and technologies. Breeding of the main species of animals to the income and nod of faunistic breeding; Genetic improvement: the variability of quantitative characters (milk, meat, eggs, wool). Elements of population genetics. Selection, Crossing, Blood Consanguinity, Interspecific Hybridization and Mutation. Principles of animal nutrition: Chemical composition of the animal and animal organisms. Digestion of foods and metabolism. Chemical and nutritional evaluation of foods. Nutritional needs and rationing. Pastures and their rational use. Rationing. Course program Bibliography Balasini D. – Zootecnia Generale. Calderini Edagricole. 2003. Bittante G., Andrighetto I., Ramanzin M Fondamenti di Zootecnica: Miglioramento Genetico, Nutrizione e Alimentazione (Liviana Editrice). Borgioli E Alimentazione e Nutrizione Animale. Ed. Edagricole. Borgioli E Miglioramento genetico degli animali in produzione zootecnica. Ed. Eda gricole Casanova P., Capacciolli A., Cellini L Appunti di Zoologia Venatoria e Gestione della Selvaggina (Polistampa, Firenze). Marsico G., Tarricone S Cinghiali, Suini ed Ibridi. Gestione, Allevamento e Produzioni. (Aracne Editrice); Marsico G Animali di interesse faunistico e venatorio. Allevamento e Gestione (Aracne Editrice). Monetti P Appunti di bovinicoltura (Cristiano Girardi Editore). Monetti P Appunti di suinicoltura (Cristiano Girardi Editore). Parigi Bini R Le Razze Bovine- Libreria Editrice Universitaria Patron).		
 Balasini D. – Zootecnia Generale. Calderini Edagricole. 200: Bittante G., Andrighetto I., Ramanzin M Fondamenti Zootecnica: Miglioramento Genetico, Nutrizione Alimentazione (Liviana Editrice). Borgioli E Alimentazione e Nutrizione Animale. E Edagricole. Borgioli E Miglioramento genetico degli animali i produzione zootecnica. Ed. Eda gricole Casanova P., Capacciolli A., Cellini L Appunti di Zoolog Venatoria e Gestione della Selvaggina (Polistampa, Firenze Marsico G., Tarricone S Cinghiali, Suini ed Ibridi. Gestion Allevamento e Produzioni. (Aracne Editrice); Marsico G Animali di interesse faunistico e venatori Allevamento e Gestione (Aracne Editrice). 	 Bibliography Balasini D Zootecnia Generale. Calderini Edagricole. 2003. Bittante G., Andrighetto I., Ramanzin M Fondamenti di Zootecnica: Miglioramento Genetico, Nutrizione e Alimentazione (Liviana Editrice). Borgioli E Alimentazione e Nutrizione Animale. Ed. Edagricole. Borgioli E Miglioramento genetico degli animali in produzione zootecnica. Ed. Eda gricole Casanova P., Capacciolli A., Cellini L Appunti di Zoologia Venatoria e Gestione della Selvaggina (Polistampa, Firenze). Marsico G., Tarricone S Cinghiali, Suini ed Ibridi. Gestione, Allevamento e Produzioni. (Aracne Editrice); Marsico G Animali di interesse faunistico e venatorio. Allevamento e Gestione (Aracne Editrice). Monetti P Appunti di bovinicoltura (Cristiano Girardi Editore). Monetti P Appunti di suinicoltura (Cristiano Girardi Editore). Parigi Bini R Le Razze Bovine- Libreria Editrice Universitaria Patron). 		 Economic and environmental aspects of livestock farming in different environments. What species for each attitudes and each territory. The environment, the territory, ecosystems. Assessment of livestock load compatible with the environment. Breeding systems and technologies. Breeding of the main species of animals to the income and nod of faunistic breeding; Genetic improvement: the variability of quantitative characters (milk, meat, eggs, wool). Elements of population genetics. Selection, Crossing, Blood Consanguinity, Interspecific Hybridization and Mutation. Principles of animal nutrition: Chemical composition of the animal and animal organisms. Digestion of foods and metabolism. Chemical and nutritional evaluation of foods. Nutritional needs and rationing. Pastures and their rational
 Bittante G., Andrighetto I., Ramanzin M Fondamenti Zootecnica: Miglioramento Genetico, Nutrizione Alimentazione (Liviana Editrice). Borgioli E Alimentazione e Nutrizione Animale. E Edagricole. Borgioli E Miglioramento genetico degli animali i produzione zootecnica. Ed. Eda gricole Casanova P., Capacciolli A., Cellini L Appunti di Zoolog Venatoria e Gestione della Selvaggina (Polistampa, Firenze Marsico G., Tarricone S Cinghiali, Suini ed Ibridi. Gestion Allevamento e Produzioni. (Aracne Editrice); Marsico G Animali di interesse faunistico e venatori Allevamento e Gestione (Aracne Editrice). 	 Bittante G., Andrighetto I., Ramanzin M Fondamenti di Zootecnica: Miglioramento Genetico, Nutrizione e Alimentazione (Liviana Editrice). Borgioli E Alimentazione e Nutrizione Animale. Ed. Edagricole. Borgioli E Miglioramento genetico degli animali in produzione zootecnica. Ed. Eda gricole Casanova P., Capacciolli A., Cellini L Appunti di Zoologia Venatoria e Gestione della Selvaggina (Polistampa, Firenze). Marsico G., Tarricone S Cinghiali, Suini ed Ibridi. Gestione, Allevamento e Produzioni. (Aracne Editrice); Marsico G Animali di interesse faunistico e venatorio. Allevamento e Gestione (Aracne Editrice). Monetti P Appunti di bovinicoltura (Cristiano Girardi Editore). Monetti P Appunti di suinicoltura (Cristiano Girardi Editore). Parigi Bini R Le Razze Bovine- Libreria Editrice Universitaria Patron). 	Carried Broads	
Editore). • Monetti P Appunti di suinicoltura (Cristiano Girare Editore). • Parigi Bini R Le Razze Bovine- Libreria Editric	Notes	Course program	
			 Bittante G., Andrighetto I., Ramanzin M Fondamenti di Zootecnica: Miglioramento Genetico, Nutrizione e Alimentazione (Liviana Editrice). Borgioli E Alimentazione e Nutrizione Animale. Ed. Edagricole. Borgioli E Miglioramento genetico degli animali in produzione zootecnica. Ed. Eda gricole Casanova P., Capacciolli A., Cellini L Appunti di Zoologia Venatoria e Gestione della Selvaggina (Polistampa, Firenze). Marsico G., Tarricone S Cinghiali, Suini ed Ibridi. Gestione, Allevamento e Produzioni. (Aracne Editrice); Marsico G Animali di interesse faunistico e venatorio. Allevamento e Gestione (Aracne Editrice). Monetti P Appunti di bovinicoltura (Cristiano Girardi Editore). Monetti P Appunti di suinicoltura (Cristiano Girardi Editore). Parigi Bini R Le Razze Bovine- Libreria Editrice

Teaching methods	The course topics will be handled with PowerPoint presentations, video clips, classroom exercises or labs. Practical lessons in zootechnical practices.
Assessment methods (indicate at least the type written, oral, other)	For students enrolled in the course year in which the lesson is held, an exemption test is foreseen. The exoneration test consists of multiple-choice and/or open-ended questions during the hours of theoretical and theoretical lessons in the classroom until the date of the same. The exoneration will be evaluated in thirty-five and in the event of a positive outcome, the next oral test will focus on the topics developed during the course following the date of the exam. The outcome contributes to the overall assessment of the profit test. The assessment of the student's preparation takes place on the basis of established criteria, as detailed in Annex A of the Teaching Regulations of the Degree Course. The foreign student's profit test can be done in English in the manner described above.
Evaluation criteria	 Knowledge and understanding skills Descriptive capabilities of the main animal production processes, quantitative aspects of animal production and variability factors Knowledge and understanding skills applied adequate understanding and knowledge on the quality parameters of animal production Autonomy of judgment improve production processes and quanto-qualitative characteristics of animal production Communicative Skills ability to describe phenomena, production processes and characteristics of food of animal origin Ability to learn adequate ability to hypothesize innovative approaches to the quantitative and qualitative improvement of animal production
Further information	Visiting hours: Every day form Monday to Friday from 9.00 am to 12.00 pm.