

**ACADEMIC YEAR: 2019-2020**

**COURSE: SUSTAINABLE ANIMAL HUSBANDRY**

**TYPE OF EDUCATIONAL ACTIVITY: BASIC**

**TEACHER: Carlo Cosentino**

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Language: **Italian**

<b>ECTS:</b> (lessons/ tutorials/practice): <b>6</b> ( <b>5</b> frontal lectures = LF + <b>1</b> practice = E)	n. of hours: 56 40 hours LF 16 hours E	Campus: Potenza School: SAFE (School of Agriculture, Forest, Food and Environmental Sciences) Program: LT - CL25 Forest and Environmental Sciences	Semester: I
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**EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES**

The main aim of course will be to provide needed understanding and knowledge to acquire planning and management capacity of livestock farms with emphasis on semi-extensive and extensive farming systems.

- **Knowledge and understanding:** knowledge and understanding of the general principles
- **Applying knowledge and understanding:** ability to read and write the formulas of the most common productivity, sustainability and zootechnical calculations
- **Make judgments:** ability to select and apply the best procedure for solving simple assessments and zootechnical designs
- **Communication skills:** ability to organize in a logical way and to communicate, using an appropriate and correct language as well, the acquired knowledge.
- **Learning skills:** ability to collect and organize in a functional way the information coming from class lectures, suggested books, and literature data.

**PREREQUIREMENTS** None

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## **SYLLABUS**

### **LIVESTOCK PRODUCTION (ECTS 1 = 8h LF)**

Farming systems. Livestock breeding in protected areas and interactions with livestock (PAC regulations). Disciplinary production (EC Reg. 2529). Grid EEC, slaughter and meat input (Decree Law 286/1994 and R.D. 3298). Production, processing and marketing of milk (DPR 54/97 and 92/46 and 92/47 EEC and DM 185/91).

### **LIVESTOCK BIODIVERSITY (ECTS 2 = 8h LF)**

Elements of reproductive physiology. Morphological and functional characteristics of farm animal. Animal productions and market.

### **LIVESTOCK SYSTEMS (ECTS 3 = 8h LF)**

Methods for evaluating the efficiency of livestock production. Influence of rearing system, of feeding, of milking rooms etc. The RSP, systems and organizations for the development and implementation of livestock.

### **LACTOGENESIS AND GALACTOPOIESIS (ECTS 4 = 8h LF)**

Lactogenesis and galactopoiesis in relation to genetic and environmental factors conditioning the function. Breeding technologies in relation to the type of production for each species, breed, and genetic type.

### **MEAT PRODUCTION (ECTS 5 = 8h LF)**

Meat production, in relation to genetic and environmental factors. Basic elements to improve the quality production and knowledge about farming systems in relation to the corporate system.

### **FRONTAL EXERCISES AND EXERCISE EXTERIOR VIEWS (ECTS 6 = 16 h E)**

Frontal exercises: calculation of the sustainable load in relation to the Nitrates Directive.

Exercise exterior views: on farms and/or trade fairs

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## **TEACHING METHODS**

40 hours of lessons with Movies, P. Point, PDF; 16 hours of practices for calculation of procedures and / or for technical visits to farms (to see a number of technical and operational aspects of livestock).

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## **EVALUATION METHODS**

The aim of the examination is to test the level of understanding of educational goals. The exam consists of a written examination (time available one hour, it is not allowed to consult texts or use PCs and smartphones): open and multiple questions; exercises concerning sustainable animal load. This test evaluates the learning of topics course and it is a selection for oral examination. The student who does not show sufficient knowledge of topics is not admitted to the next oral examination .

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## **TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL**

- ANTONGIOVANNI M., e GUALTIERI M., Nutrizione e alimentazione animale. Edagricole, Bologna, 1998.
  - APA-Regione Basilicata – Latronico (PZ) – 1995 - L'allevamento ovino e caprino in Basilicata orientamento, attività selettiva e patologie.
  - BALASINI D., Bovini e bufalini. Edagricole, Bologna, 2000.
  - BALASINI D., Ovicaprini. Edagricole, Bologna, 2000.
  - BALASINI D., Suini. Edagricole, Bologna, 2000.
  - BALASINI D., Equini. Edagricole, Bologna, 2000.
  - BALASINI D., Zootecnica Speciale –Edagricole Bologna-1990;
  - BETTINI T.M. - Elementi di Scienza delle produzioni animali, Edagricole, BO, 1987;
  - BONADONNA T. – Etnologia zootecnica, Utet, Torino, 1976.
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- BORGIOLO E., Genetica e miglioramento degli animali agricoli. Edagricole, BO, 1993.
- DAVID SAINSBURY. Farm Animal Welfare. Collins, 1986.
- DERIVAUX J.,- Riproduzione degli animali domestici I Fisiologia – Patron,BO –1974;
- GRAU R., Scienza della carne. Edagricole, Bologna, 1984.
- MONETTI P.G. 2001. Allevamento dei bovini e dei suini. C. Giraldi Editore, BO.
- HOUPPT K.A. Il comportamento degli animali domestici. EMSI, Roma, 2003.
- PARIGINI BINI R., Le razze bovine. Patron, Bologna, 1983
- PARIGINI BINI R., SAMEA, DE MARCO A., Zootecnica speciale dei bovini, vol. I e II. Patron, Bologna, 1989
- PORTOLANO N. - Igiene dell'allevamento ovino e caprino – Edagricole – BO,-1987;
- PULINA G. – L'alimentazione degli ovini da latte – Avenue media – Bologna- 2001;
- REGIONE BASILICATA – Dipartimento Agricoltura – 1999 - Guida pratica alle norme igienico sanitarie per la produzione e trasformazione del latte in azienda ;
- SUCCI G., La vacca da latte. Città Studi, Milano, 1993.
- SUCCI G. – Zootecnica speciale, Clesav, Milano, 1983.
- TORTORELLI N. – Zootecnica Speciale, Edagricole, Bologna, 1984.
- UNAPOC – MIPA –Roma –1992 – Ovinicoltura;
- ZUCCHI G., – Zootecnica – Economia del sistema delle produzioni animali - Avenue media – Bologna- 2001

Part of the course material will be provided by the teacher, another part is available on the World Wide Web system and on the website



<http://www.biodiversitazootecnica.it>

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#### **INTERACTIONS WITH STUDENTS**

At the beginning of the course, after describing the objectives, program and methods of verification, the teacher provides students educational materials. Simultaneously, it collects a list of students who intend to enroll in the course, together with name, serial number and e-mail. Through mailing list will be sent slides and P.Point, PDF, Scientific articles, links to related sites Topics covered etc.)

Office hours: Tuesday, Wednesday and Thursday from 16:30 to 18:30

In addition is available at all times for a contact with the students, through e-mail [carlo.cosentino@unibas.it](mailto:carlo.cosentino@unibas.it) and phone number 0971.205044.

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#### **EXAMINATION SESSIONS (Forecast)**

Usually the third Tuesday of every month (except August)

#### **EVALUATION BOARD**

Carlo Cosentino

Pierangelo Freschi

Ada Braghieri

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#### **SEMINARS BY EXTERNAL EXPERTS YES**

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