# COURSE LAYOUT

## 1. GENERAL

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| **SCHOOL** | **Animal Biosciences** |
| **DEPARTMENT** | **Animal Science** |
| **STUDY LEVEL** | **Bachelor** |
| **COURSE CODE** | **0159** |

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| **COURSE CODE** | **0159** | **SEMESTER** | **6**th |
| **COURSE TITLE** | **THE PHYSIOLOGICAL BASES OF FARM ANIMAL GROWTH** | | |

| INDEPENDENT TEACHING ACTIVITIES | WEEKLY TEACHING HOURS | ECTS |
|---|:---:|:---:|
| Theory | 2 | 2 |
| Laboratory Practicals | 2 | 2 |
| | | 4 |

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|---:|:---|
| **COURSE TYPE** | Field of Science |
| **PREREQUISITES** | - |
| **LANGUAGE** | Greek |
| **IS THE COURSE OFFERED forERASMUS STUDENTS?** | Yes (in English) |
| **COURSE WEB PAGE (URL)** | - |

## 2. LEARNING OUTCOMES

**Learning Outcomes**

The course "THE PHYSIOLOGICAL BASES OF FARM ANIMAL GROWTH" aims to familiarize students, in theoretical and practical level, with the contemporary physiological aspects applied in mechanisms of productive animal growth.

In particular, lectures and practice focus on the understanding of:

1. Physiological mechanisms of lipogenesis and lipolysis in the adipose tissue of productive animals

2. Quantitative and molecular study of enzymes and hormones implying in the adipose tissue metabolism

3. The factors that influence carcass and meat production in ruminants.

- The characteristics of the most common breeds of cow, sheep and goat with the intention of their evaluation through the appropriate breeding systems.
- The factors that influence the conception rate, the duration of gestation and parturition but also the factors used for the estimation of the reproductive potential (prolificacy rate, viability rate, profitability rate).
- The factors that affect the process of milk production, the growth of mammary gland and the development of lactation in ruminants.
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**General Competenses**

- Individual and group work

- Producing new research ideas

- Promotion of free, creative and inductive thinking

### 3. COURSE CONTENT

Body growth: Basics, Estimation of growth. Muscle tissue and adipose tissue, myogenesis, texture, growth and affecting factors on bones, muscle and adipose tissue growth and protein metabolism. Body composition. Affecting factors and methods of estimation on live animals and carcasses. Fattening efficiency, growth rate, feed conversion. Meat quality. Chemical composition, Physical, chemical and organoleptic characteristics. Problems on meat quality. Modifications of growth by exogenous hormones.

### 4. TEACHING and LEARNING METHODS - Evaluation

| TEACHING METHOD | In class, face to face. |
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| USE OF INFORMATICS and COMMUNICATION TECHNOLOGIES | PowerPoint and video presentations. Communication with students via e-mail. Teaching support through access to the e-class platform, to on-line databases etc. |

| TEACHING ORGANISATION | Activities | Work load per semester |
|---|---|---|
| | Lectures | 40 |
| | Laboratory practice | 30 |
| | Training tours (visits in animal farms). | 10 |
| | Individual study of students | 20 |
| | Total work load (25 h work load per ECTS) | 100 |

| STUDENTS EVALUATION | The evaluation on the course's theory consists of:<br>1. final written examination on the course's theory (80-100%), consisting of:<br>I. Evaluation of elements of the course's theory<br>II. Short-answer questions<br>III. Multiple choice questions<br>2. Personal written essay and its presentation<br><br>The evaluation on the course's laboratory practice is determined by the final written examination (100%) consists of:<br>I. Evaluation of elements of the course's theory<br>II. Short-answer questions<br>III. Multiple choice questions |
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### 5. BIBLIOGRAPHY

*-Proposed Literature:*
*Ρογδάκης Εμμ. (2006): Γενική Ζωοτεχνία, Εκδόσεις Σταμούλης, Αθήνα.*
*Ζυγογιάννης Δ. (2006): Προβατοτροφία, Εκτροφή μηρυκαστικών (τεύχος Α), εκδ. Σύγχρονη Παιδεία, Θεσσαλονίκη.*

*Κατσαούνης Ν. (1994): Προβατοτροφία, Εκδ. οίκος αδελφών Κυριακίδη, Θεσσαλονίκη.*
***-Related Scientific Journals:***
*Επιθεώρηση Ζωοτεχνικής Επιστήμης*
*Animal*
*Small Ruminant Research*