Code: 1689 **Animal Physiology**
Degree: 1st cycle - Biology
Curricular Year: 3rd **Semester Course: 1st**
Credits: **8 ECTS** **Compulsory**
Language: Portuguese/English
Responsible: Teresa de Jesus da Silva Matos
Other lecturer(s): Maria Madalena dos Santos Lordelo
Web Site: http://www.isa.utl.pt/home/node/3964

1. Contact hours:
Lectures 28 **Lecture/Practicals** 28 **Praticals/Laboratory** 28 **Others** 28 **Total** 112

2. Objectives:

To study the fundamental physiological mechanisms for the animal life at different levels of organization; to compare the different systems used in vertebrate and invertebrate species for the environmental adaptations and to explore the systems contribution for the homeostasis maintenance on the animal organism, mainly in man as a model. Manipulation of animal lab.

3. Programme:

- Study of the fundamental physiological mechanisms for the animal life at different levels of organization.
- Assessment of the different systems used in vertebrate and invertebrate species for the environmental adaptations and for their contribution to the homeostasis maintenance on the animal organism, mainly in man (as a study model).
- Organization and structure of the animal organism: Movement and support; Integration systems and control; Regulation and maintenance; Development and reproduction.
- Physiology study of the different organs systems: nervous system; cardiovascular system and internal transport; gases exchange and respiration; digestive system; urinary system; endocrine system; reproductive system; lymphatic system; muscle structure and physiology.
- Practical and laboratory lectures. Seminars.
- Animal lab manipulation.

4. Bibliography:

Main Bibliography

Seeley, R.R.; Stephens, T.D. & Tate, P. 2005. Anatomia e fisiologia. Lusociência, 6ª Ed. (Mcgraw-Hill Higher Education, edição original), Portugal.
Schmidt-Nielsen, K. 2002. Animal physiology, adaptation and environment. Cambridge University Press. 5ª ed. USA.
Eckert. 2002. Animal physiology, mechanisms and adaptations. Ed.: D. Randall; W. Burggren; K. French. W. H. Freeman and Company, New York, USA.

Other Bibliography

Stabler, T. & Zao, P. 2000. Physio Ex IV – CD- Rom: Laboratory simulations in physiology. Benjamin Cummings, New York, USA.

5. Assessment:

Two seminars and poster session; production of abstracts related to practical lectures and two short exams or a global final exam. Minimum score: 10/20 scale.

6. Estimated Workload: 224 Hours

7. Last Update: 8/7/2010