

Code: 1757 Animal Reproduction**Degree:** 1st cycle – Animal Production Engineering**Curricular Year:** 2nd**Credits:** 6 ECTS**Semester Course:** 1st**Compulsory****Language:** Portuguese/English**Responsible:** Mário Quaresma (FMV)**Other lecturer(s):** -**Web Site:** <http://www.isa.utl.pt/home/node/3970>**1. Contact hours:****Lectures 35 Lecture/Practicals 13 Praticals/Laboratory 22 Others 14 Total 84****2. Objectives:**

Animal reproduction curricular unit aims to provide students with the required knowledge in order to be able to establish reproductive plans on production species (bovine, sheep, goats, horses, pigs, and fowl), based on the understanding of the reproductive physiological mechanisms, with the objective of achieving the better productivity, regarding the specificity of each production system and animal welfare.

3. Programme:

1. Anatomy of the reproductive apparatus of the production species.
 - 1.1. Anatomy of male reproduction.
 - 1.2. Anatomy of female reproduction.
 - 1.3. Anatomy-physiologic relationships in the reproductive apparatus.
2. Physiology of reproduction
 - 2.1. Female reproductive cycle
 - 2.2. Spermatogenesis
 - 2.3. Fecundation and subsequent gestation stages.
3. Assisted Reproductive Technology.
 - 3.1. Estrous synchronization.
 - 3.2. Artificial insemination.
 - 3.3. Embryo transfer.
 - 3.4. Gender selection in sperm cells and embryos.
4. Reproductive cycles of production species.
 - 4.1. Reproductive strategies accordingly to the production species.
 - 4.2. Puberty and estrous cycles.
 - 4.3. Reproductive behavior and estrous detection
 - 4.4. Gestation, parturition and puerperium.
 - 4.5. Assisted reproductive technology.

4. Bibliography:**Main Bibliography**

Class handouts, lecture notes, scientific and technical papers.
Reproduction in Farm Animals – Hafez, E.S.E. &Hafez, B., 7th Ed. 2000
Lippincott Williams & Wilkins, USA

Other Bibliography

- Controlled Reproduction in Farm Animal Series
- 1 - Controlled Reproduction in Cattle and Buffaloes - Ian Gordon, Cabi Publishing
 - 2 - Controlled Reproduction in Sheep and goats - Ian Gordon, Cabi Publishing
 - 3 - Controlled Reproduction in Pigs - Ian Gordon, Cabi Publishing
 - 4 - Controlled Reproduction in Horses, Deer and Camelids

5. Assessment:

The students' learning is evaluated by group work and a written examination at the end of the semester.

6. Estimated Workload:

168	Hours
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7. Last Update:

13/7/2010
