

This module is for students with an interest in the physiology of reproduction in domesticated animals. The module includes comprehensive components on the physiological systems of reproduction and on the approaches that are used to manipulate reproduction in domesticated animals. The module gives students foundation knowledge of the physiology of hormones and pheromones of reproduction, ovarian and testicular function, sperm and oocyte development, embryo development, establishment and maintenance of pregnancy and parturition. In addition to basic physiology, the module includes a large component on the application of physiology and new technologies to animal reproduction in agriculture including factors affecting puberty; expression, detection and synchronization of oestrous behaviour; artificial insemination, in vitro embryo production and embryo transfer.

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<div style="text-align:center;"><p>Curricular information is subject to change</p></div>

What will I learn?

Learning Outcomes:

<p>On completion of this module students should be able to: Explain and understand the endocrine control of reproduction; Explain factors controlling sperm production, reproductive cycles, ovarian follicular growth and the establishment and maintenance of pregnancy; Evaluate the level of reproductive efficiency in different farm species; Evaluate the efficiency and impact of assisted reproductive technologies at farm level; Apply an understanding of reproductive physiology to formulate solutions to reproductive problems in animals.</p>

Indicative Module Content:

<p>Introduction

History of embryology

Testicular anatomy and function

Spermatogenesis & accessory glands

Semen collection and processing

Artificial insemination

Endocrinology (+ve & -ve feedback etc)

Reproductive cycles and hormones

Oogenesis and ovarian follicle development

Patterns of follicle growth

Luteolysis and maternal recognition of pregnancy

Sexual differentiation

Puberty

Pheromones

Oestrous behaviour and detection

Synchronisation of oestrus

Gamete transport and fertilization

Pregnancy and parturition

Embryo mortality

Superovulation and embryo transfer

In vitro embryo production

Cloning and transgenesis

Anoestrus - gestation, lactation, seasonal

Postpartum reproduction - Beef & Dairy

Reproduction in non-farm species

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How will I learn?

Student Effort Hours:

Student Effort Type	Hours
Lectures	36
Practical	9
Autonomous Student Learning	55
Total	100

Am I eligible to take this module?

<div class="subHeadCB">Requirements, Exclusions and Recommendations</div>

Learning Recommendations:

<p>Students should have taken a basic course in biology before attempting this course.</p>

<div class="subHeadCB">Module Requisites and Incompatibles</div>

Not applicable to this module.

How will I be assessed?

Assessment Strategy

Description	Timing	Open Book Exam	Component Scale	Must Pass Component	% of Final Grade
Continuous Assessment: One in-class MCQ style quiz in mid-semester	Varies over the Trimester	n/a	Graded	No	20
Examination: MCQ-style examination	2 hour End of Trimester Exam	No	Graded	No	60
Practical Examination: 1 hour MCQ style practical exam	Week 12	n/a	Graded	No	20

<div class="row">
<div class="col-sm-6">Carry forward of passed components
Yes</div>
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What happens if I fail?

Resit In	Terminal Exam
Spring	Yes - 2 Hour

Assessment feedback

<div class="subHeadCB">Feedback Strategy/Strategies</div>
<p>* Group/class feedback, post-assessment</p>
<div class="subHeadCB">How will my Feedback be Delivered?</div>
<p>Results for in-term tests will be given within 2 weeks of sitting the test.</p>

Reading List

<div class="pageBreak"><nav class="white-box no-left-arrow zero-top-margin">
<h1 class="printOnly"> UCD Course Search
Animal Reproduction (ANSC30010) </h1><h3 class="printOnly">Academic Year 2019/2020</h3><p class="printOnly">The information contained in this document is, to the best of our knowledge, true and accurate at the time of publication, and is solely for informational purposes. University College Dublin accepts no liability for any loss or damage howsoever arising as a result of use or reliance on this information.</p>
<h4 class="noPrint">Animal Reproduction (ANSC30010)</h4>
<dl>
<dt>Subject:</dt>
<dd>Animal Science</dd>
<dt>College:</dt>
<dd>Health & Agricultural Sciences</dd>

<dt>School:</dt>
<dd>Agriculture & Food Science</dd>
<dt>Level:</dt>
<dd>3 (Degree)</dd>
<dt>Credits:</dt>
<dd>5.0</dd>

<dt>Trimester:</dt>
<dd>Autumn</dd>
<dt>Module Coordinator:</dt>
<dd>Professor Patrick Lonergan</dd>
<dt>Mode of Delivery:</dt>
<dd>Face-to-Face</dd>
<dt>Internship Module:</dt><dd>No</dd>

<dt>How will I be graded?</dt>
<dd>Letter grades </dd>

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<div class="noPrint" style="text-align:center; margin-top:10px;"><button class="menubutton" onclick="window.print()"><i class="fa fa-print fa-fw"> Print
Page</button>
(Google Chrome is recommended when printing
this page)</div>

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