BIOL30002 Experimental Reproductive Physiology

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	This subject is not offered in 2014. An enrolment quota of 40 students applies to this subject. For detailed information on the quota subject application process and enrolment deadlines, refer to the Quota Subject link on the Science Student Centre website: http://studentcentre.unimelb.edu.au/eastern/
Time Commitment:	Contact Hours: 1 x one hour lecture/tute per week; 1 x four hour practical class/research laboratory-based research work time per week; one 4 hour excursion late in the semester. Total Time Commitment: Estimated total time commitment of 120 hours Students are strongly encouraged to attend all lectures and pracs.
Prerequisites:	

Subject	Study Period Commencement:	Credit Points:
ZOOL20006 Comparative Animal Physiology	Semester 2	12.50

Or two of:

Subject	Study Period Commencement:	Credit Points:
BIOM20001 Molecular and Cellular Biomedicine	Semester 1	25
BIOM20002 Human Structure and Function	Semester 2	25
BCMB20002 Biochemistry and Molecular Biology	Semester 1, Semester 2	12.50
CEDB20003 Fundamentals of Cell Biology	Semester 1	12.50
GENE20001 Principles of Genetics	Semester 1	12.50
PHYS20008 Human Physiology	Semester 1, Semester 2	12.50
PHYS20009 Research-Based Physiology	Semester 1, Semester 2	12.50
ZOOL20005 Animal Structure and Function	Semester 1	12.50

Students with equivalent alternative backgrounds should discuss their options with the coordinator.

Corequisites:

Subject	Study Period Commencement:	Credit Points:
BIOL30001 Reproductive Physiology	Semester 2	12.50

Recommended Background Knowledge: None.

Non Allowed Subjects: Students may not gain credit for this subject and any of:

Subject	Study Period Commencement:	Credit Points:
DASC30006 Applied Animal Reproduction & Genetics	Semester 1	12.50

BIOL30001 Reproduction (prior to 2013)

Core Participation Requirements: For the purposes of considering applications for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005) and Students Experiencing Academic

	Disadvantage Policy, this subject requires all students to actively and safely participate in laboratory activities. Students who feel their disability may impact upon their participation are encouraged to discuss this with the Subject Coordinator and the Disability Liaison Unit. http://www.services.unimelb.edu.au/disability/
Contact:	**mark.green@unimelb.edu.au (mailto:mark.green@unimelb.edu.au)**
Subject Overview:	The program will provide students with the opportunity to gain a first-hand laboratory experience of the structure, function, and development of the reproductive organs, including selected aspects of the endocrine, neuroendocrine and environmental control of reproduction, fertilisation, pregnancy, parturition and lactation in mammals. Student will gain experience in experimental design, cutting-edge research techniques, data analysis, and scientific report writing and will be introduced to the practicalities of reproductive manipulation and assisted reproductive technologies.
Learning Outcomes:	This subject aims to give students of science and biomedical science a solid foundation in laboratory practise in reproductive biology. Students will be provided with an opportunity to engage in an authentic experience of scientific research: addressing questions in reproductive physiology to generate a hypothesis; designing an experiment; hands-on experience in the use of experimental animals; working in a group to complete the experiments and collect and analyse the data; writing up an individual final report in the format of a scientific manuscript; and peer-review. By the completion of this subject students should: # understand the modern experimental approaches of reproductive physiology and assisted reproductive techniques; # be aware of the ethical issues in using animals for experimental studies; # understand and be able to apply selected methods used in reproductive physiology research; # understand the structure and function of male and female reproductive systems; # understand neuroendocrine and endocrine control systems and their role in the regulation of reproductive processes; and # understand the process by which scientists move from an original idea to a final published paper.
Assessment:	3 x Laboratory worksheets of 200 words each assessed during semester (30%); project proposal of 500 words due in week 7 (10%); project report of 3000 words due in week 11 (50%); peer-reviewed group oral presentation of 20 minutes due in week 12 (10%)
Prescribed Texts:	None
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	This subject builds upon existing generic skills, including an ability to approach and assimilate new knowledge from observation and the literature, and an ability to use that knowledge to evaluate and communicate results. Students should acquire the basic skills required to make and record scientific observations, and evaluate data in an objective manner as part of practical class report writing. They will be encouraged to access information from the primary scientific literature, through both electronic and traditional sources, and to develop the skills needed to produce scientific reports that are succinct, clear and completed on time. They should develop their abilities to evaluate scientific evidence critically, to formulate hypotheses, and be alert to alternative explanations. Students should also gain first-hand experience in the ethical use of animals in experimentation. Students will undertake practical work in a small group and will refine their skills in cooperative teamwork.
Related Majors/Minors/ Specialisations:	Molecular Biotechnology (specialisation of Biotechnology major) Reproduction and Development (specialisation of Cell and Developmental Biology major) Science credit subjects* for pre-2008 BSc, BASc and combined degree science courses Science-credited subjects - new generation B-SCI and B-ENG. Selective subjects for B-BMED Zoology

	Zoology Zoology