BIOL30001 Reproduction

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	2012, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 24 lectures and 30 hours practical/tutorials Total Time Commitment: Estimated total time commitment of 120 hours
Prerequisites:	25 points selected from

Subject	Study Period Commencement:	Credit Points:
ZOOL20005 Animal Structure and Function	Semester 1	12.50
ZOOL20006 Comparative Animal Physiology	Semester 2	12.50
PHYS20008 Human Physiology	Semester 1, Semester 2	12.50
PHYS20009 Research-Based Physiology	Semester 1, Semester 2	12.50
CEDB20003 Fundamentals of Cell Biology	Semester 1	12.50
GENE20001 Principles of Genetics	Semester 1	12.50
BCMB20002 Biochemistry and Molecular Biology	Semester 1, Semester 2	12.50
BIOM20002 Human Structure and Function	Semester 2	25
BIOM20001 Molecular and Cellular Biomedicine	Semester 1	25

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

Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	Students may not gain credit for this subject and any of # 208-325 Applied Animal Reproduction (prior to 2010) # 654-314 Lectures in Reproduction (prior to 2005) # 654-304 Reproduction (prior to 2010)

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

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 practical class 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/

Coordinator:	Prof Geoff Shaw
Contact:	Email: BIOL30001@zoology.unimelb.edu.au
Subject Overview:	Topics will include structure, function, and development of the reproductive organs; endocrine and neuroendocrine and environmental control of reproduction, fertilisation, pregnancy, parturition and lactation in vertebrates; and human intervention in the reproductive process.
Objectives:	This subject aims to give students of science and biomedical science a solid foundation in reproductive biology and its applications. 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:	A written project plan due in week 4 (5%); laboratory work and worksheets assessed during the semester (10%); a major practical report up to 1500 words (30%) due at the end of semester; peer-review exercises (10%); a 1-hour mid-semester test in week 6 or 7 (10%); a 2-hour written examination in the examination period (35%
Prescribed Texts:	M H Johnson, Essential Reproduction 6th Ed, Blackwell Publishing.
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2012/B-ARTS)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2012/B-COM)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2012/B-ENVS)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2012/B-MUS)** You should visit **learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html)** and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.
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 increase their skills in cooperative teamwork.
Notes:	This subject is available for science credit to students enrolled in the BSc (both pre-2008 and new degrees), BASc or a combined BSc course. Experiments involving the use of animals are an essential part of this subject: exemption is not possible.
Related Majors/Minors/ Specialisations:	Animal Cell Biology (specialisation of Cell and Developmental Biology major) Biotechnology (pre-2008 Bachelor of Science) Cell Biology (pre-2008 Bachelor of Science) Genetics Molecular Biotechnology (specialisation of Biotechnology major) Physiology Reproduction and Development (pre-2008 Bachelor of Science) 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. Core selective subjects for B-BMED. Zoology