CEDB30003 Developmental Biology

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. An enrolment quota of 110 students applies to this subject.
Time Commitment:	Contact Hours: 42 contact hours in total including 24 lectures (2 lectures/week) and 3 hours of practicals fortnightly Total Time Commitment: 120 hours
Prerequisites:	Any ONE of the following subjects:

Subject	Study Period Commencement:	Credit Points:
CEDB30002 Concepts in Cell & Developmental Biology	Semester 1	12.50
CEDB20003 Fundamentals of Cell Biology	Semester 1	12.50
GENE20001 Principles of Genetics	Semester 1	12.50
GENE20002 Genes and Genomes	Semester 2	12.50
BCMB20002 Biochemistry and Molecular Biology	Semester 1, Semester 2	12.50
ZOOL20006 Comparative Animal Physiology	Semester 2	12.50

OR (For BBiomedicine students)

Subject	Study Period Commencement:	Credit Points:
BIOM20001 Molecular and Cellular Biomedicine	Semester 1	25

Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
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Subject Overview:	In this subject students will gain a detailed understanding of the molecular, biochemical and cellular events that regulate the development of specialised cells, tissues and organs during embryonic development. In particular, cell signalling pathways that regulate embryonic induction, tissue interactions and pattern formation, and expression of regulatory genes. A particular focus is the experimental strategies and techniques that are used to identify molecular and cellular mechanisms of development.
Objectives:	Students will comprehend the molecular, biochemical and cellular events that regulate the development of specialised cells, tissues and organs during embryonic development, particularly cell signalling pathways that regulate embryonic induction, tissue interactions and pattern formation, and expression of regulatory genes; and understand the experimental strategies and techniques that are used to identify the molecular and cellular mechanisms of development.
Assessment:	Ongoing assessment on theory and practical work during the semester comprising: two 30-minute multiple choice quizzes (5% each - mid and late semester); two practical reports to be completed during the practical sessions (5% each - early and mid semester); one practical report of 1200 words (10% - late semester); a 2-hour written examination during the examination period (70%).
Prescribed Texts:	Gilbert SF, Developmental Biology, 9th Edition, Sinauer PressORWolpert L. and Tickle C. Principles of Development, 4th edition, Oxford University Press
Recommended Texts:	Wolpert L. Principles of Development, 4th edition, Oxford University Press.
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:	On completion of this subject, students should: # Be able to interpret scientific literature. # Have the capacity to integrate knowledge across several disciplines. # Appreciate the usefulness of basic research for understanding and solving current biological problems. # Have the ability to critically analyse scientific data.
Notes:	This subject is available to students enrolled in the NG BSc, BBiomed, pre-2008 BSc, pre-2008 BASc, pre-2008 BBiomedSc. Experiments involving the use of animals are an essential part of this subject. A laboratory coat and safety glasses will be required for practical work.

Related Majors/Minors/ Specialisations:	Anatomy (pre-2008 Bachelor of Science) Animal Cell Biology (specialisation of Cell and Developmental Biology major) Biotechnology (pre-2008 Bachelor of Science) Cell Biology (pre-2008 Bachelor of Science) Human Structure and Function Molecular Biotechnology (specialisation of Biotechnology major) 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
Related Breadth Track(s):	Cell & Developmental Biology