CEDB30003 Developmental Biology

Credit Points:	12.5
Level:	3 (Undergraduate)
Dates & Locations:	2016, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus. An enrolment quota of 110 students per semester applies to this subject. For detailed information on the quota subject application process, refer to the Quota Subject link on the MDHS Student Centre website: http://sc.mdhs.unimelb.edu.au/quota-subjects
Time Commitment:	Contact Hours: 42 contact hours in total including 24 lectures (2 lectures/week) and 3 hours of practicals fortnightly Total Time Commitment: 170 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 Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability
Coordinator:	Assoc Prof Robb De Iongh, Dr Mary Familari
Contact:	Subject Coordinators

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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.
Learning Outcomes:	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 multiple choice quizzes (30 minutes each), Week 7 and Week 11 (10% each); two practical reports to be completed during the practical sessions (2 page short question & answer, each report equivalent to 150 words), Weeks 2-3 and Weeks 5-6 (depending on practical group) (5% each); one practical report (1000 words), due Weeks 10-12 (depending on practical group) (10%); a 2-hour written examination during the examination period (60%).
Prescribed Texts:	Gilbert SF, Developmental Biology, 10th 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/2016/B-ARTS)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2016/B-COM)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2016/B-ENVS)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2016/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 (specialisation of Cell and Developmental Biology major) Science-credited subjects - new generation B-SCI and B-ENG. Selective subjects for B-BMED Zoology Zoology Zoology Zoology Zoology
Related Breadth Track(s):	Cell and Developmental Biology