

CEDB20002 Cells, Tissues and Organs

Credit Points:	12.50																		
Level:	2 (Undergraduate)																		
Dates & Locations:	2011, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.																		
Time Commitment:	Contact Hours: two x 1 hour lecture per week, 3 x 2 hour practicals, 6 x 3 hour computer-aided learning (CAL) modules Total Time Commitment: 48 contact hours with an estimated total time commitment of 120 hours																		
Prerequisites:	<p>BSc:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>BIOL10004 Biology of Cells and Organisms</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>BIOL10005 Genetics & The Evolution of Life</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table> <p>BBiomedicine:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>BIOL10002 Biomolecules and Cells</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>BIOL10003 Genes and Environment</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table> <p>Pre-2008 degrees: Consult Coordinator</p>	Subject	Study Period Commencement:	Credit Points:	BIOL10004 Biology of Cells and Organisms	Semester 1	12.50	BIOL10005 Genetics & The Evolution of Life	Semester 2	12.50	Subject	Study Period Commencement:	Credit Points:	BIOL10002 Biomolecules and Cells	Semester 1	12.50	BIOL10003 Genes and Environment	Semester 2	12.50
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Corequisites:	None																		
Recommended Background Knowledge:	None																		
Non Allowed Subjects:	None																		
Core Participation Requirements:	It is University policy to take all reasonable steps to minimise the impact of disability upon academic study and reasonable steps will be made to enhance a student's participation in the University's programs. 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/																		
Coordinator:	Assoc Prof Colin Anderson																		
Contact:	c.anderson@unimelb.edu.au (mailto:c.anderson@unimelb.edu.au) 8344 5807 Administrative Coordinator: Ms Kim Williams anatomy-student@unimelb.edu.au 8344 5791																		
Subject Overview:	This subject introduces students to the properties of tissues and organs and how these arise from the properties of their constituent cells and their interactions. In particular, the subject will provide an understanding of how cells function in animal (epithelial, connective and neural) and plant tissues. Students will learn how cellular activities are regulated to ensure orderly replacement of cells in the adult (stem cells) and gain an appreciation of how tissues and organs are first assembled during embryonic development. Students will be introduced to the																		

	molecular mechanisms involved in developmental and disease processes. An underlying theme will be an understanding of the evolutionary differences (and similarities) in plant and animal development.
Objectives:	In completing this subject, students should: <ul style="list-style-type: none"> # Understand how multicellularity arose during evolution and the advantages it confers. # Understand how the properties of tissues and organs arise from the properties of their constituent cells and their interactions. # Understand how cellular activities are regulated to ensure an orderly replacement of lost or damaged cells in the adult organism (stem cells). # Appreciate how multicellularity arises during development of organisms. # Gain an appreciation of the evolutionary differences between plants and animal tissues.
Assessment:	Three continuous assessment tasks (10% each): 1. 40 minute multiple choice test (early Semester)2. Essay 1,200 words 3. 40 minute, short answer testin early, mid and late semester; 2 hour final examination (70%) in end of semester exam period
Prescribed Texts:	B Alberts, A Johnson, J Lewis, M Raff, K Roberts & P Walter, Molecular Biology of the Cell, 5th edition, Garland Science.
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: <ul style="list-style-type: none"> # Bachelor of Arts (https://handbook.unimelb.edu.au/view/2011/B-ARTS) # Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2011/B-COM) # Bachelor of Environments (https://handbook.unimelb.edu.au/view/2011/B-ENVS) # Bachelor of Music (https://handbook.unimelb.edu.au/view/2011/B-MUS) <p>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.</p>
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	In completing this subject, students should have: <ul style="list-style-type: none"> # Developed analytical and problem-solving skills. # Capacity to integrate knowledge from disparate sources. # Collaborative learning in practical class groups. # Developed skills in observation and interpretation.
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. This subject is available to students enrolled in the New Generation BSc, BBiomed, pre-2008 BSc, pre-2008 BASc, pre-2008 BBiomedSc. Students undertaking this subject will be expected to regularly access an internet-enabled computer. During semester there will be limited access to computer laboratories.
Related Course(s):	Bachelor of Science
Related Majors/Minors/Specialisations:	Science credit subjects* for pre-2008 BSc, BASc and combined degree science courses
Related Breadth Track(s):	Cell & Developmental Biology