516-211 Cells, Tissues and Organs

Credit Points:	12.50
Level:	2 (Undergraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 2, - Taught on campus.
Time Commitment:	Contact Hours: two x 1 hour lecture per week, one x 3 hour practical per 3 weeks and two x 2 hour online workshops per 3 weeks Total Time Commitment: 52 contact hours with an estimated total time commitment of 120 hours
Prerequisites:	Fundamentals of Cell Biology
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	Molecular & Cellular Biomedicine
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.
Coordinator:	Dr Robb De Iongh
Subject Overview:	The subject builds on the subject 'Fundamentals of Cell Biology' and 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 animals (epithelial, connective and neural) and plant tissues. Students will learn how cellular activities are regulated to ensure orderly replacement of cells in the adult 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 in disease processes. An underlying theme will be an understanding of the evolutionary differences (and similarities) in plant and animal development.
Objectives:	On completion of this subject students should have: # Understood how the properties of tissues and organs arise from the properties of their constituent cells and their interactions # Understood how cellular activities are regulated to ensure an orderly replacement of lost cells in the adult organism # Understood the defence and repair processes which are commonly used when malfunction or injury of a tissue or organ occurs # Gained an appreciation of the evolutionary differences between plants and animal tissues
Assessment:	3 continuing assessment tasks (10% each) during semester; 2 hour final written examination (70%) in end of semester exam period
Prescribed Texts:	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: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2009/D09)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2009/F04)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2009/A04)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2009/M05)**

	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 have developed the following generic skills: # Analytical and problem-solving skills # Capacity to integrate knowledge from disparate sources # Collaborative learning in practical class groups # 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. Students undertaking this subject will be expected to regularly access an internet-enabled computer. During semester there will be limited access to computer laboratories.