

CEDB20003 Fundamentals of Cell Biology

Credit Points:	12.5									
Level:	2 (Undergraduate)									
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.									
Time Commitment:	Contact Hours: two x 1 hour lecture per week, 8 x 3 hour computer-aided learning (CAL) modules. Total Time Commitment: 48 contact hours with an estimated total time commitment of 170 hours.									
Prerequisites:	The following two subjects are prerequisites: <table border="1" data-bbox="387 600 1485 804"> <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>	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
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BIOL10004 Biology of Cells and Organisms	Semester 1	12.50								
BIOL10005 Genetics & The Evolution of Life	Semester 2	12.50								
Corequisites:	None									
Recommended Background Knowledge:	None									
Non Allowed Subjects:	The following subject is a non allowed subject: <table border="1" data-bbox="387 1055 1485 1202"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>BIOM20001 Molecular and Cellular Biomedicine</td> <td>Semester 1</td> <td>25</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	BIOM20001 Molecular and Cellular Biomedicine	Semester 1	25			
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Core Participation Requirements:	<p><p>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.</p> <p>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</p></p>									
Coordinator:	Assoc Prof Colin Anderson, Dr Jenny Gunnensen									
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Subject Overview:	The subject builds on the basic cell biology concepts introduced in first year biology and develops students' understanding of the processes that regulate the structure and function of eukaryotic cells. Using examples from plant and animal cells, the subject will outline the cellular structures and molecular processes that are fundamental for regulating cell function in multicellular organisms. It will also explore the external signals (physical, molecular, electrochemical) that can lead to changes in cell behaviour, gene expression, protein synthesis or cell replication.
Learning Outcomes:	In completing this subject, students should: <ul style="list-style-type: none"> # Develop a broad understanding of the structure of eukaryotic cells (plant and animal) and the compartments where various cellular activities occur. # Identify the range of cellular activities that are especially relevant to multicellular organisation. # Understand how external signals can lead to changes in gene expression and protein synthesis in cells. # Understand how electrical properties of cells are harnessed for electrochemical signalling.
Assessment:	Three 40 minute multiple choice tests (10% each) in 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/2015/B-ARTS) # Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2015/B-COM) # Bachelor of Environments (https://handbook.unimelb.edu.au/view/2015/B-ENVS) # Bachelor of Music (https://handbook.unimelb.edu.au/view/2015/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:	On completion of this subject, students should have: <ul style="list-style-type: none"> # Developed analytical and problem-solving skills. # The capacity to integrate knowledge from disparate sources. # Developed collaborative learning skills in practical class groups. # Developed skills in observation and interpretation.
Notes:	This subject is not available to students enrolled in the Bachelor of Biomedicine. 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, 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 Majors/Minors/Specialisations:	Botany Botany Science-credited subjects - new generation B-SCI and B-ENG. Zoology Zoology
Related Breadth Track(s):	Cell & Developmental Biology