

VETS20016 Biochemistry in Animal Systems

Credit Points:	12.5												
Level:	2 (Undergraduate)												
Dates & Locations:	2016, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.												
Time Commitment:	Contact Hours: 3 hours lectures and 2 hours workshops/case studies/practicals per week. Total 60 contact hours Total Time Commitment: 170 hours												
Prerequisites:	One of the following: <table border="1" data-bbox="386 573 1485 835"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>CHEM10007 Fundamentals of Chemistry</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>CHEM10003 Chemistry 1</td> <td>Semester 1, Semester 2</td> <td>12.50</td> </tr> <tr> <td>AGRI10045 Foundations of Agricultural Sciences 1</td> <td>Semester 2</td> <td>12.5</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	CHEM10007 Fundamentals of Chemistry	Semester 1	12.50	CHEM10003 Chemistry 1	Semester 1, Semester 2	12.50	AGRI10045 Foundations of Agricultural Sciences 1	Semester 2	12.5
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CHEM10003 Chemistry 1	Semester 1, Semester 2	12.50											
AGRI10045 Foundations of Agricultural Sciences 1	Semester 2	12.5											
Corequisites:	None.												
Recommended Background Knowledge:	<table border="1" data-bbox="386 943 1485 1149"> <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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Non Allowed Subjects:	None.												
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 Jason White												
Contact:	Email: jasondw@unimelb.edu.au (mailto:jasondw@unimelb.edu.au)												
Subject Overview:	An understanding of the chemical processes that occur in living organisms is essential to understanding how plants, animals and microbes function, and therefore the best management practices that will result in optimal health and productivity. This subject is designed to introduce students to the discipline of biochemistry, to allow them to develop a basic understanding of the biological chemistry underpinning function at the cellular and system levels. Topics covered will include: cellular structure and biochemical function, structure of biomolecules including proteins, lipids and carbohydrates, energy generating pathways, photosynthesis, metabolism, fixation and assimilation of nitrogen, transformation of metals, phosphorus and sulphur, comparative metabolism in ruminants and avians and the regulation of metabolism by hormones and isoprenoids.												

Learning Outcomes:	<p>On completion of this subject, students should:</p> <ul style="list-style-type: none"> # Be familiar with the terminology of biochemistry # Understand the principles and important information regarding the chemical structures and properties of cellular constituents, and the correlation of structure with function # Comprehend the interrelationships of metabolic pathways and biochemical reactions between organism and tissue systems # Develop skills in the organization, analysis and interpretation of biochemical data
Assessment:	Four written reports (up to 500 words each) based on workshops due during the semester worth a total of 25% A one-hour written examination held mid-semester worth 30% A two-hour written exam to be held in the end-of-semester exam period worth 45%
Prescribed Texts:	None
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	<p>On completion of this subject, students should have developed the following generic skills:</p> <ul style="list-style-type: none"> # Organization, analysis and evaluation of data # Working collaboratively with other students # Respect of intellectual integrity
Related Majors/Minors/ Specialisations:	<p>Agricultural Economics Plant and Soil Science Production Animal Health Production Animal Science</p>