BCMB30011 Metabolism and Nutrition

Credit Points:	12.5
Level:	3 (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 x one-hour lectures plus 1 x one-hour tutorial per week Total Time Commitment: 48 contact hours with an estimated total time commitment of 170 hours
Prerequisites:	BSc students Before 2009: **Biochemistry & Molecular Biology Part A (521-211)** **Biochemistry & Molecular Biology Part B (521-212)** 2009 and subsequently **Subject** / **Study Period Commencement:** / **Credit Points:** BCMB20002 Biochemistry and Molecular Biology — Semester 1, Semester 2 — 12.50 Note that the pre-2009 subjects "**Biochemistry & Molecular Biology Part A / Part B**" and "**BCMB20002 Biochemistry & Molecular Biology**" are not identical despite having a similar subject title. Only the subject **Subject** / **Study Period Commencement:** / **Credit Points:** BCMB20002 Biochemistry and Molecular Biology — Semester 1, Semester 2 — 12.50 offered in 2009 and subsequently acts as a stand-alone prerequisite. BBiomedicine students **Subject** / **Study Period Commencement:** / **Credit Points:** BIOM20001 Molecular and Cellular Biomedicine — Semester 1 — 25 Other combinations that provide similar background will be considered by the coordinator.
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	Students cannot enrol in and gain credit for **BCMB30011 Metabolism and Nutrition** if they obtained credit for the pre-2010 subject **Biochemistry of Metabolism and Nutrition (521-305)**.
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</p>
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Subject Overview:	The interpretation of nutritional information relies on an understanding of how nutrients are metabolised and what can go wrong in disease states. The subject material covers control of the digestion and absorption of nutrients; the regulation of blood glucose concentration and the causes of diabetes; the generation of free-radicals and the importance of antioxidants in protecting proteins, lipids and DNA from oxidative damage; the regulation of muscle protein metabolism in response to starvation, physical trauma and various diseases; the metabolism of blood lipids and how they contribute to the risk of cardiovascular disease; metabolic contributions to obesity, cardiovascular disease, aging and related nutritional problems; carrier proteins for nutrients and receptors on the cell surface involved in the regulation of nutrition and metabolism.
Learning Outcomes:	# To give students a sound understanding at the molecular level of how humans handle nutrients via metabolism and what can go wrong in disease states # To indicate the similarities between humans and other living organisms # To demonstrate how the emerging field of metabolomics (the study of a range of metabolites in a cell or tissue) is being applied as a diagnostic tool
Assessment:	1000-word essay assignment (15%) Two tests held during mid-semester (7.5% each) One 3-hour written exam held during the examination period (70%)
Prescribed Texts:	No prescribed text
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:	Students will be provided with the opportunity to develop skills in critical thinking, particularly through researching a relevant topic and preparing a 1000-word essay assignment. They will learn to apply theoretical principles to the explanation of observations and acquire skills in time management.
Related Majors/Minors/ Specialisations:	Biochemistry and Molecular Biology Science-credited subjects - new generation B-SCI and B-ENG. Selective subjects for B-BMED