

SCIE10003 Science: Supporting Health and Wellbeing

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Credit Points:	12.5						
Level:	1 (Undergraduate)						
Dates & Locations:	This subject is not offered in 2015.						
Time Commitment:	Contact Hours: 3 x 2-hour classes per week, including approximately 16 hours of practical and/or laboratory work per semester Total Time Commitment: Estimated Total Time Commitment - 160 hours; which includes the 12-week semester and 4 weeks of non-teaching time						
Prerequisites:	<p>Satisfactory completion of each assessment component of:</p> <table><tr><th>Subject</th><th>Study Period Commencement:</th><th>Credit Points:</th></tr><tr><td>SCIE10002 Science: Systems, Technology and Design</td><td>Semester 2</td><td>12.50</td></tr></table>	Subject	Study Period Commencement:	Credit Points:	SCIE10002 Science: Systems, Technology and Design	Semester 2	12.50
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SCIE10002 Science: Systems, Technology and Design	Semester 2	12.50					
Corequisites:	None						
Recommended Background Knowledge:	Science study to Year 10 level, together with satisfactory completion of a VCE Unit 1/2 in Biology, Chemistry, Physics or Mathematics						
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>						
Contact:	m.livett@unimelb.edu.au (mailto:m.livett@unimelb.edu.au)						
Subject Overview:	<p>Scientific investigation underpins an evolving understanding of the structure and function of the healthy human body, as well as threats to human health and changes that occur as the body ages. This subject aims to develop students' understanding of both health and disease, integrating the contributions of biology, chemistry and physics.</p> <p>Topics include:</p> <ul style="list-style-type: none"># Molecules of life: Compounds in food (carbohydrates, fats, oils, proteins and amino acids), inheritance (RNA, DNA) and other molecules important to life;# Cells' structure and function: Properties of a cell (prokaryotic and eukaryotic cells), moving molecules in and out of cells (diffusion, osmosis, active transport), replication of cells;# Body systems: Systems maintaining balance (homeostasis) – gases, salt, water, temperature; systems detecting the environment - sensory and nervous systems (detection of light, electrical conduction); other body systems - musculoskeletal system (movement, biomechanics);# Upsetting the balance: Infectious disease (control, plagues and epidemics), other diseases (e.g. cancer)						
Learning Outcomes:	<p>To enable students to apply the methods of science to understanding the interaction the structure and function of the human body, and develop their capacity to:</p> <ul style="list-style-type: none"># explain the principles underpinning our understanding of human bodies both when healthy and when experiencing injury and disease;# apply these principles using logical reasoning, together with appropriate mathematical reasoning, to a variety of familiar and novel situations and problems in the biological, chemical and physical sciences; and						

	# acquire experimental data using a range of measurement instruments and interpret these data.
Assessment:	Ongoing assessment of class activities, including practical and laboratory work, equivalent to 1500 words. Satisfactory completion of this assessment, including 80% attendance, is required for a pass (20%) Two 20-minute tests, due weeks 4 and 8 (15%) Two written assignments, each equivalent to 500 words, due weeks 6 and 10 (15%) 2-hour examination at the end of semester. Satisfactory completion of this assessment is required for a pass (50%)
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>A student who completes this subject should be able to:</p> <ul style="list-style-type: none"> # explain their understanding of science principles and applications clearly, both in writing and orally; # acquire and interpret experimental data and design experimental investigations; # participate as an effective member of a group in discussions and practical work; # think independently and analytically, and direct his or her own learning; and # manage time effectively in order to be prepared for regular classes and assessment tasks.
Related Course(s):	Bachelor of Science (Extended)