

## ZOO20006 Comparative Animal Physiology

<b>Credit Points:</b>	12.5																		
<b>Level:</b>	2 (Undergraduate)																		
<b>Dates &amp; Locations:</b>	<p>2016, Parkville</p> <p>This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.</p> <p>An enrolment quota of 240 students applies to this subject. For detailed information on the quota subject application process, enrolment deadlines and selection preferences, refer to the Faculty of Science website: <a href="http://science.unimelb.edu.au/students/course-planning-and-advice">http://science.unimelb.edu.au/students/course-planning-and-advice</a> This subject involves the use of animals that form an essential part of the learning objectives for this subject. Exemption is not possible but there are alternatives for those who have strong philosophical objections. These can be discussed with the subject co-ordinator.</p>																		
<b>Time Commitment:</b>	Contact Hours: 30 x one hour lectures during the semester; 4 x three hour practical classes and 2 x three hour workshops during the semester Total Time Commitment: Estimated total time commitment of 170 hours																		
<b>Prerequisites:</b>	<p>Either both</p> <table border="1"> <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 &amp; The Evolution of Life</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table> <p>Or both</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>BIOL10002 Biomolecules and Cells</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>BIOL10003 Genes and Environment</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	Subject	Study Period Commencement:	Credit Points:	BIOL10002 Biomolecules and Cells	Semester 1	12.50	BIOL10003 Genes and Environment	Semester 2	12.50
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<b>Corequisites:</b>	None																		
<b>Recommended Background Knowledge:</b>	First year level chemistry or statistics subjects are strongly recommended.																		
<b>Non Allowed Subjects:</b>	Students who have received credit for 654-203 Animal Physiology (prior to 2009) may not enrol in this subject for credit.																		
<b>Core Participation Requirements:</b>	For the purposes of considering applications for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005) and Students Experiencing Academic Disadvantage Policy, 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. <a href="http://www.services.unimelb.edu.au/disability/">http://www.services.unimelb.edu.au/disability/</a> This subject involves the use of animals that form an essential part of the learning objectives for this subject. Exemption is not possible but there are alternatives for those who have strong philosophical objections. These can be discussed with the subject co-ordinator.																		
<b>Coordinator:</b>	Assoc Prof Michael Kearney																		
<b>Contact:</b>	Email: <a href="mailto:zool-20006@unimelb.edu.au">zool-20006@unimelb.edu.au</a> ( <a href="mailto:zool-20006@unimelb.edu.au">mailto:zool-20006@unimelb.edu.au</a> )																		
<b>Subject Overview:</b>	This lecture and laboratory based subject aims to give students a solid foundation in basic physiological processes in animals, with a focus on the different ways in which animals adapt to their environments. Particular emphasis will be placed on marine and desert animals, and																		

	the integrative mechanisms involved in the regulation of important organ systems. Topics include endocrine feedback, neural integration, water and salt balance; cardiovascular systems, thermoregulation; metabolism and reproduction.
<b>Learning Outcomes:</b>	<p>Upon completion of this subject, students should have a solid understanding of basic physiological processes in animals; and an understanding of how animals adapt to diverse and challenging environments.</p> <p>In the laboratory components students should develop first hand experience in designing and conducting physiological experiments and learn how to interpret data and write scientific reports.</p>
<b>Assessment:</b>	Written tasks associated with practical work, up to a total of approximately 10 pages due at dates distributed across the first 7 weeks of the semester (15%); a scientific report of up to the equivalent of 2000 words due in week 10 of the semester (20%); a 3 hour written examination during the examination period (65%)
<b>Prescribed Texts:</b>	Hill, Wyse & Anderson, <i>Animal Physiology</i> , 3rd Ed, Sinauer Associates Inc. 2012.
<b>Recommended Texts:</b>	Moyes and Schulte, <i>Principles of Animal Physiology</i> , 2nd Ed. Pearson Press 2007 Kinsey, <i>A Student Handbook for Writing Biology</i> , 4th Ed. Sinauer Associates Inc. 2013
<b>Breadth Options:</b>	<p>This subject potentially can be taken as a breadth subject component for the following courses:</p> <ul style="list-style-type: none"> <li># <b>Bachelor of Arts</b> (<a href="https://handbook.unimelb.edu.au/view/2016/B-ARTS">https://handbook.unimelb.edu.au/view/2016/B-ARTS</a>)</li> <li># <b>Bachelor of Commerce</b> (<a href="https://handbook.unimelb.edu.au/view/2016/B-COM">https://handbook.unimelb.edu.au/view/2016/B-COM</a>)</li> <li># <b>Bachelor of Environments</b> (<a href="https://handbook.unimelb.edu.au/view/2016/B-ENVS">https://handbook.unimelb.edu.au/view/2016/B-ENVS</a>)</li> <li># <b>Bachelor of Music</b> (<a href="https://handbook.unimelb.edu.au/view/2016/B-MUS">https://handbook.unimelb.edu.au/view/2016/B-MUS</a>)</li> </ul> <p>You should visit <a href="http://breadth.unimelb.edu.au/breadth/info/index.html">learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html)</a> and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.</p>
<b>Fees Information:</b>	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>
<b>Generic Skills:</b>	The subject builds upon generic skills developed in first year level subjects, including the ability critically assess and assimilate new knowledge. Students should learn how to use these skills to solve practical problems in physiology. They should learn how to design physiological experiments and then collect scientific data as a team. This subject also enables students to gain experience in evaluating and interpreting data and writing scientific reports.
<b>Notes:</b>	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.
<b>Related Majors/Minors/ Specialisations:</b>	<p>Science-credited subjects - new generation B-SCI and B-ENG.</p> <p>Selective subjects for B-BMED</p> <p>Zoology</p> <p>Zoology</p>