PHYS90009 Introduction to Physiological Research

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 30 Total Time Commitment: 120
Prerequisites:	Available to Honours and MSc (RT) in Physiology or related discipline with approval of the Head of Department.
Corequisites:	None.
Recommended Background Knowledge:	Undergraduate 3 year sequence in relevant experimental science discipline.
Non Allowed Subjects:	None.
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website : http://www.services.unimelb.edu.au/disability/
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Subject Overview:	This subject uses a structured approach to introduce students to the process of physiological investigation. In a series of 10 (2hr) tutorials students are guided through the tools of testable hypothesis formulation, data management and evaluation, data presentation, and research outcome communication. Specific case examples of experimental design and statistical testing techniques are considered. Students are introduced to discipline suited statistical approaches and software. Ethical practices relevant to both animal and human experimental research are reviewed and inculcated. Broad issues relating to research conduct and management are addressed in the context of Discussion workshops. These topics include intellectual property, scientific integrity and fraud, conflict of interest, e-research, publication production and data archiving.
Objectives:	To develop expertise in experimental research design, implementation and data evaluation in an appropriate ethical context. To acquire competency in statistical analysis, hypothesis testing and data presentation. To generate awareness of and appropriate behaviours relating to ethical conduct of animal and human experimental ethics.
Assessment:	Four written reports/assignments (not exceeding 2000 words each) submitted during the semester, each worth 25%.

Prescribed Texts:	None.
Recommended 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:	Development of : # a mature understanding of the experimental framework of hypothesis formulation and testing as appropriately applied in a biomedical specific discipline # skills in statistical methods and analysis tools as applied to experimental hypothesis evaluation # confidence and independence in undertaking research in an appropriate ethical context.