PAED40002 The Biology of Human Health and Disease

Credit Points:	12.5
Level:	4 (Undergraduate)
Dates & Locations:	2016, Parkville This subject commences in the following study period/s: Year Long, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 24 Total Time Commitment: 24 contact hours with an estimated total time commitment of 170 hours (including non-contact time)
Prerequisites:	

Subject	Study Period Commencement:	Credit Points:
BIOM40001 Introduction To Biomedical Research	February	12.50

Corequisites:

Subject	Study Period Commencement:	Credit Points:
PAED40001 Paediatrics Research Project	Semester 1	31.25

Recommended Background Knowledge:	None
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 Student Equitable Adjustment Procedure, academic requirements for this subject are articulated in the Subject Overview, Objectives, 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 will impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and the Disability Liaison Unit: http://www.services.unimelb.edu.au/disability/
Coordinator:	Prof Amanda Fosang
Contact:	**Subject Coordinator:** Assoc Prof Amanda Fosang **amanda.fosang@mcri.edu.au (mailto:amanda.fosang@mcri.edu.au)** **Administrative Coordinator:** Ms Helen D'Cruz **helen.dcruz@rch.org.au (mailto:helen.dcruz@rch.org.au)**
Subject Overview:	This subject provides students with an introduction to biomedical research via lectures, workshops and tutorials. It comprises a range of coursework to complement the accompanying research subjects (**PAED40001 (../../view/2011/PAED40001)** and **PAED40005 (../../view/2011/PAED40005)**). This subject is designed to enhance students' understanding of the broader areas of contemporary biomedical science, and to encourage the development of independent thinking and critical analytical skills.
Learning Outcomes:	The objectives of this subject are to enable students to: # Understand contemporary issues in biomedical and health research # Design and plan experiments with appropriate hypotheses and controls

	# Design and plan experiments with appropriate ethical and statistical rigor # Access a range of bioinformatics tools that can facilitate biomedical research # Correctly use statistical methods, including hypothesis testing, p values and appropriate measures of variability
Assessment:	Mock Grant Application (3 pages) and short answer test related to the grant application, due April/May (34%) An individualised dataset will be provided to each student for analysis in an online biostatistics assignment; students are encouraged to discuss the questions and the biostatistical approach in groups; assignments are submitted and assessed individually; maximum assignment length is 3 pages; due July/August (33%) Following a tutorial on Critical Data Analysis, students will be given a short research paper to take home; they will provide an analysis of the paper by short (1-2 paragraphs) answers to 4-6 questions; students are encouraged to discuss the questions in groups, then complete and submit individual answers to the questions within 3 days; due August/September (33%) Hurdle Requirements: The bioinformatics assignment is done in groups of 3 to 4 students. Each group is assigned a unique DNA sequence to analyse, with a list of questions to answer. Assignments are submitted and assessed per group. The maximum assignment length is 4 pages of text, excluding figures and screen shots used to describe the search results. Due March/April. A pass mark for the Mock Grant Application is a hurdle requirement.
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:	At the completion of this subject, students should have: # The ability to articulate knowledge and persuasive intellectual arguments in a particular research discipline # The ability to critically appraise and comment on the scientific literature # A strong sense of intellectual integrity and the ethics of scholarship # A clear understanding of statistical methods # The ability to organise, prioritise and manage time
Links to further information:	http://www.paediatrics.unimelb.edu.au/
Notes:	Students must be enrolled in the Bachelor of Biomedicine (Honours), Bachelor of Science (Honours) or Postgraduate Diploma in Science to complete this subject.
Related Majors/Minors/ Specialisations:	Paediatrics