GENE90002 Clinical Genetics

Credit Points:	12.5
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 11 weeks, 2 x 3 hours per week Total Time Commitment: 170 hours
Prerequisites:	Successful completion of: **Subject** / **Study Period Commencement:** / **Credit Points:** GENE90001 Human Genetics and Genetic Counselling 1 / Semester 1 / 12.50
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering requests 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 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 may 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/
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Subject Overview:	The curriculum is based on the requirements of the Human Genetics Society of Australasia Board of Censors for Genetic Counselling, which governs the certification of genetic counsellors in Australia. Clinical and laboratory concepts relating to genetic disorders will be taught via a combination of didactic and problem based learning (PBL) methods. Various human disorders will be discussed to illustrate basic concepts. PBL will be used to facilitate the sharing of information between students and to support the development of group work- which models the work of a genetic counsellor, who works as part of a multidisciplinary team. Tutors will have experience working in the areas of clinical genetics, genetic education/research.
Learning Outcomes:	This subject is designed to enable students to acquire knowledge in the following areas as well as an appreciation of the application of this knowledge to the practice of clinical genetics: # Dysmorphology and approaches to syndrome diagnosis

	# Reproductive genetics and technologies, including preimplantation genetic diagnosis, prenatal screening and testing options, ultrasounds and prenatal procedures, together with a consideration of the options available when a fetal abnormality is detected # Inborn errors of metabolism and their clinical manifestations # Common genetic conditions: clinical features, modes of inheritance and genetics # Cancer genetics, including the role of genetics in the cause and/or predisposition of individuals to cancer # Neurogenetics, including the role of genetics in the cause and/or predisposition of individuals to various neurological conditions # Genetic causes of intellectual disability # Genetic conditions associated with various body organs/systems, for example skeletal, skin, eye, blood, immune, kidney, gastrointestinal tract, oral and craniofacial, endocrine and hormonal, respiratory, ear, and cardiovascular system # Treatment of genetic disease # Laboratory approaches to predictive, diagnostic and carrier genetic testing # Working with other professionals and identifying community resources # Ethical and legal systems in relation to the practice of clinical genetics, for example issues relating to privacy and confidentiality, professional guidelines and codes of conduct.
Assessment:	end of semester 2.5hr written exam (60%) experiential and 1500 word written assignment (30%, due mid semester) and class participation/in class assessments for topics taught during the course of the semester (10%)
Prescribed Texts:	None
Recommended Texts:	# Nussbaum RL, McInnes RR, Wlllard HF (2007) # Thompson and Thompson Genetics in Medicine (7th Edition), WB Saunders A subject reference list will be provided. Library available with selected texts within Genetic Health Services Victoria.
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:	On completing this subject students should be able to: # Elicit and document a family history and pedigree # Understand clinical genetic risk assessments # Be able to convey genetic information and discuss risk # Have an appreciation of molecular, cytogenetic and biochemical laboratory testing utilised in clinical genetics # Have an appreciation for the approaches to treatment for specific genetic disordersUnderstand the role of prenatal screening and testing in pregnancy management and care and the options available when fetal abnormality is detected # Understand the role of genetics as the underlying cause of various disorders of the human body # Understand the role of genetics in cancer # Have an appreciation for the role of the genetic counsellor in the context of the multidisciplinary approach to clinical genetic health care # Understand the principles of the legal and professional duties and responsibilities of genetic counsellors as health professionals and members of a health care team # Have an appreciation for the approaches to treatment for specific genetic disorders
Related Course(s):	Master of Genetic Counselling