ISYS90076 IT Infrastructure for eHealth

Credit Points:	12.5
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 36 hours Total Time Commitment: 200 hours
Prerequisites:	**Subject** / **Study Period Commencement:** / **Credit Points:** ISYS90069 eHealth & Biomedical Informatics Systems / June / 12.50
Corequisites:	None
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 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. 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
Coordinator:	Assoc Prof Kathleen Gray
Contact:	Email: **kgray@unimelb.edu.au (mailto:kgray@unimelb.edu.au)**
Subject Overview:	**Aims** This subject develops technical capabilities required for sound decision-making about ehealth solutions and applications. It reviews the building blocks of hardware, software and networks. It identifies requirements for interoperability of systems and integration of information; explores emerging platforms for eHealth solutions and applications; and outlines technical management and governance issues. **Indicative Content** Five major topics will be covered in lectures, tutorials and hands-on computer laboratories: 1 Hardware, Software and Networks for eHealth 2 Interoperability 3 Information Integration 4 New Platforms for eHealth 5 Governance and Management of eHealth Infrastructure
Learning Outcomes:	**Intended Learning Outcomes (ILOs)** On completion of this subject the student is expected to: 1 Work effectively with eHealth infrastructure concepts and components 2 Identify requirements for interoperability of ehealth systems and data integration

	3 Analyse and synthesise technical knowledge to create enabling environments for real-world ehealth systems
Assessment:	Five written reports based on individual computer-based learning tutorials / practical activities (10% each). Approximately 500 words each. Due in weeks 3,5,7,9 and 11. Each requires approximately 13-15 hours of work per student including preparation. Intended Learning Outcome (ILO) 2 is addressed in these assignments. This component of assessment is a hurdle and students must pass it to pass the subject. Project report on on ehealth infrastructure design project (50%). 10 minute class presentation and written report of approximately 2000 words due in week 12. Requires approximately 70-75 hours of work per student. Group projects are optional; 1000 additional words and 5 additional minutes of class presentation are required for each extra person, i.e. 2 people = 3000 words + 15 minute presentation; 3 people = 4000 words + 20 minute presentation, etc. Each group member commits approximately 70-75 hours of work and receives the same mark. ILOs 1 and 3 are addressed in this assignment. This component of assessment is a hurdle and students must pass it to pass the subject.
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:	On completion of this subject, students should have developed the following generic skills: # Understanding of global issues relating to health # The ability to work across different disciplines # Excellent in-depth knowledge to support responsible leadership
Notes:	**Learning and Teaching Methods** This subject is offered as one 3-hour block of two 1- hour lectures plus one 1- hour tutorial per week over 12 weeks. Subject documents and class records are handled using LMS Blackboard. **Indicative Key Learning Resources** This subject has no textbook. Students have access to lecture audio and slides in the LMS, as well as electronic full-text of recommended readings, including current journal articles, government documents and industry reports. 2012 examples of recommended readings are: Integrating the Health Enterprise. 2012. IHE IT Infrastructure Technical Framework, Volume 2x **http://www.ihe.net/Technical_Framework/upload/IHE_ITI_TF_Vol2x.pdf (http://www.ihe.net/Technical_Framework/upload/IHE_ITI_TF_Vol2x.pdf)** **Sittig DF (http://www.ncbi.nlm.nih.gov/pubmed?term=Sittig%20DF%5BAuthor%5D&cauthor=true&cauthor_uid=22692259)** , **Hazlehurst BL (http://www.ncbi.nlm.nih.gov/pubmed?term=Hazlehurst%20BL%5BAuthor%5D&cauthor=true&cauthor_uid=22692259)** , **Brown J (http://www.ncbi.nlm.nih.gov/pubmed?term=Brown%20J%5BAuthor%5D&cauthor=true&cauthor_uid=22692259)** , **Murphy S (http://www.ncbi.nlm.nih.gov/pubmed?term=Murphy%20S%5BAuthor%5D&cauthor=true&cauthor_uid=22692259)** , **Rosenman M (http://www.ncbi.nlm.nih.gov/pubmed?term=Rosenman%20M%5BAuthor%5D&cauthor=true&cauthor_uid=22692259)** , **Tarczy-Hornoch P (http://www.ncbi.nlm.nih.gov/pubmed?term=Tarczy-Hornoch%20P%5BAuthor%5D&cauthor=true&cauthor_uid=22692259)** , **Wilcox AB (http://www.ncbi.nlm.nih.gov/pubmed?term=Wilcox%20AB%5BAuthor%5D&cauthor=true&cauthor_uid=22692259)** . 2012. A survey of informatics platforms that enable distributed comparative effectiveness research using multi-institutional heterogenous clinical data. Mandl, K., Murphy, S., Bernstam, E., Ramoni, R., Kreda, D., Mccoy, J., Adida, B., Kohane, I. 2012. SMART Platforms: Creating the “App Store” for Health **Careers/Industry Links** This subject is important in the field of ehealth and biomedical informatics, i.e. work that concerns the acquisition, storage, retrieval and use of information in, about and for human health, and the design and management of related solutions to advance the understanding and practice of healthcare. This subject is offered jointly by the Faculty of Engineering and the

	Faculty of Medicine, Dentistry and Health Sciences, and also uses expert guest speakers from industry and government.
Related Course(s):	Master of Information Systems Master of Information Systems Master of Information Systems Master of Information Technology Master of Information Technology
Related Majors/Minors/ Specialisations:	MIS Professional Specialisation MIS Research Specialisation MIT Health Specialisation