BINF20001 The Future of Health in a Data Storm

Credit Points:	12.5
Level:	2 (Undergraduate)
Dates & Locations:	This subject is not offered in 2015.
Time Commitment:	Contact Hours: Online subject It is expected that students will actively participate in the online discussions about the suggested readings and proposed activities. This would represent around 5 hours weekly. Total Time Commitment: 170 hours
Prerequisites:	Students are expected to have some previous knowledge in the areas covered by this subject and therefore it is required at least 12.5 points (one standard subject) in biosciences, health sciences or computer sciences study area
Corequisites:	None
Recommended Background Knowledge:	Some knowledge in biosciences, health sciences, or computer sciences is recommended to fully understand the basic concepts used in the literature offered throughout the course.
	Through scheduled learning activities and options for assessment, students will be encouraged to extend their background knowledge by exploring the other disciplines involved in health and biomedical informatics.
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
Contact:	Subject Coordinator
	Dr. Guillermo Lopez Campos
	guillermo.lopez@unimelb.edu.au (mailto:guillermo.lopez@unimelb.edu.au)
Subject Overview:	New advanced technologies are transforming and disrupting traditional healthcare and biomedical research, driven by data of unprecedented volume, variety and velocity. The discipline of Health and Biomedical informatics provides insights, tools and methods to shape this increasingly complex scenario in ways that advance human health.
	This subject is structured as a "journal club", a widely popular form of learning and knowledge sharing in science.
	An introductory week will feature an asynchronous overview of the subject, the discipline and how a journal club works (video); followed by asynchronous activities focused on participant introductions, practice assignments, feedback and discussion.
	Weeks 2 through 13 will follow the pattern of an asynchronous overview of the theme by an expert; followed by asynchronous activities focused on structured student-led discussions of journal articles selected from a pool developed by subject teaching experts. These will be cumulatively assessed to furnish half the overall mark for the subject.
	In Weeks 14 and 15 students will prepare and upload videos, in which they briefly present for peer review, a synthesis of current journal reports on a topic of their choice (negotiated with teaching staff). The final asynchronous classes will facilitate the peer review process and expansive discussion around the subject theme of the future of health in a data storm.
	Week by week outline:
	Week 1 – The future of health in a data storm

	Weeks 2 - 4 – e-health, m-health, tele-health
	Weeks 5 - 7 – Personalised medicine
	Weeks 8-10 – Participatory health
	Weeks 11-12 – Student presentations
	This subject will be managed by the Health and Biomedical Informatics Centre, a University Centre with members from different Schools and Departments across the University.
Learning Outcomes:	Understand basic terms and concepts about health data, information and knowledge
	Extract related information from key journals and databases about healthcare and biomedical science.
	Apply components of critical appraisal to the interdisciplinary literature characterizing this subject.
	Communicate opportunities and challenges, achievements and gaps in this field.
Assessment:	Written report of the papers analysed (3x750 words, due week 3, 6 and 9) 50% Peer-review of other students reports (2x250 words in designated weeks) 20% Student presentation (5 minutes) and presentation file (750 words, weeks 11 and 12) 20% Appraisal of other students presentations (2x300 words, week 14) 10%
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 students should be able to:
	# Understand the structure of a scientific paper
	# Application of on-line communications
	# Planning effective work schedules
	# Communication and dispersion of scientific knowledge
Related Majors/Minors/ Specialisations:	Selective subjects for B-BMED