ENGR90028 Introduction to Energy Systems

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: 48 hours Total Time Commitment: 120 hours
Prerequisites:	Admission to a Masters level program.
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	
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:	Dr Robert Gordon
Contact:	Email: **robert.gordon@unimelb.edu.au (mailto:robert.gordon@unimelb.edu.au)**
Subject Overview:	**AIMS** This subject provides a general introduction to the many issues that need to be considered when examining the global energy system. These include - # A brief history of different forms of energy and energy technologies # The historical relationship between energy use and industrialisation # The social, environmental and economic costs and benefits of different forms of energy and energy technology # An introduction to energy resources and resource economics # A brief review of the costs of different forms of energy # Historical, current and projected energy consumption, greenhouse gas emissions and other pollutant emissions # Opportunities for greenhouse gas mitigation.
Learning Outcomes:	**INTENDED LEARNING OUTCOMES (ILO)** On completion of this subject students should be able to - 1 Appreciate the historical precedents that have led to the current, global energy system 2 Consider the social, environmental and economic costs and benefits of different forms of energy and energy technology 3 Consider the complex relationships between the use of different primary, secondary and tertiary energies.

Assessment:	• Two assignments (25% each) not exceeding 12 pages each, one due mid-semester and the other at the end of semester, requiring approximately 25 hours work each.• One written three-hour end-of-semester examination (50%).
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:	Having completed this unit the student should be able to - # Communicate effectively with the community at large # Have an understanding of the social, cultural, global and environmental responsibilities of a professional, and the need for sustainable development.
Related Course(s):	Master of Energy Systems
Related Majors/Minors/ Specialisations:	Master of Engineering (Mechanical) Tailored Specialisation Tailored Specialisation