

# ENGR90032 Energy Supply and Value Chains

| <b>Credit Points:</b>                    | 25   |                |                            |                |                                    |                  |       |  |                  |       |                                |                  |       |                                |                  |       |
|--|--|----------------|----------------------------|----------------|------------------------------------|------------------|-------|--|------------------|-------|--------------------------------|------------------|-------|--------------------------------|------------------|-------|
| <b>Level:</b>                            | 9 (Graduate/Postgraduate)  |                |                            |                |                                    |                  |       |  |                  |       |                                |                  |       |                                |                  |       |
| <b>Dates &amp; Locations:</b>            | This subject is not offered in 2013.   |                |                            |                |                                    |                  |       |  |                  |       |                                |                  |       |                                |                  |       |
| <b>Time Commitment:</b>                  | Contact Hours: 72 hours Total Time Commitment: 240 hours   |                |                            |                |                                    |                  |       |  |                  |       |                                |                  |       |                                |                  |       |
| <b>Prerequisites:</b>                    | <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>ENGR90029 Analysing Energy Systems</td> <td>Not offered 2013</td> <td>12.50</td> </tr> <tr> <td>ENGR90028 Introduction to Energy Systems</td> <td>Not offered 2013</td> <td>12.50</td> </tr> <tr> <td>ECON90015 Managerial Economics</td> <td>Not offered 2013</td> <td>12.50</td> </tr> <tr> <td>FNCE90060 Financial Management</td> <td>Not offered 2013</td> <td>12.50</td> </tr> </tbody> </table>  | Subject        | Study Period Commencement: | Credit Points: | ENGR90029 Analysing Energy Systems | Not offered 2013 | 12.50 | ENGR90028 Introduction to Energy Systems | Not offered 2013 | 12.50 | ECON90015 Managerial Economics | Not offered 2013 | 12.50 | FNCE90060 Financial Management | Not offered 2013 | 12.50 |
| Subject                                  | Study Period Commencement:   | Credit Points: |                            |                |                                    |                  |       |  |                  |       |                                |                  |       |                                |                  |       |
| ENGR90029 Analysing Energy Systems       | Not offered 2013   | 12.50          |                            |                |                                    |                  |       |  |                  |       |                                |                  |       |                                |                  |       |
| ENGR90028 Introduction to Energy Systems | Not offered 2013   | 12.50          |                            |                |                                    |                  |       |  |                  |       |                                |                  |       |                                |                  |       |
| ECON90015 Managerial Economics           | Not offered 2013   | 12.50          |                            |                |                                    |                  |       |  |                  |       |                                |                  |       |                                |                  |       |
| FNCE90060 Financial Management           | Not offered 2013   | 12.50          |                            |                |                                    |                  |       |  |                  |       |                                |                  |       |                                |                  |       |
| <b>Corequisites:</b>                     | None   |                |                            |                |                                    |                  |       |  |                  |       |                                |                  |       |                                |                  |       |
| <b>Recommended Background Knowledge:</b> | None   |                |                            |                |                                    |                  |       |  |                  |       |                                |                  |       |                                |                  |       |
| <b>Non Allowed Subjects:</b>             | None   |                |                            |                |                                    |                  |       |  |                  |       |                                |                  |       |                                |                  |       |
| <b>Core Participation Requirements:</b>  | <p>&lt;p&gt;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.&lt;/p&gt; &lt;p&gt;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: &lt;a href="http://services.unimelb.edu.au/disability"&gt;http://services.unimelb.edu.au/disability&lt;/a&gt;&lt;/p&gt;</p>  |                |                            |                |                                    |                  |       |  |                  |       |                                |                  |       |                                |                  |       |
| <b>Contact:</b>                          | <p>A/Prof Michael Brear<br/> <a href="mailto:mjbrear@unimelb.edu.au">mjbrear@unimelb.edu.au</a> (<a href="mailto:mjbrear@unimelb.edu.au">mailto:mjbrear@unimelb.edu.au</a>)</p>  |                |                            |                |                                    |                  |       |  |                  |       |                                |                  |       |                                |                  |       |
| <b>Subject Overview:</b>                 | <p>This subject will examine both the supply and value chains of the major forms of energy used globally.</p> <p>It will first examine energy markets in detail, including -</p> <ul style="list-style-type: none"> <li># network delivery markets for electricity and natural gas;</li> <li># discrete delivery markets for oil and its products, natural gas, coal and uranium;</li> <li># integration of public policy considerations, particularly greenhouse gas emissions, renewable energy incentives, installed capacity and essential service requirements;</li> <li># financial markets, and their relationship to energy markets.</li> </ul> <p>The subject will then consider risk management, including -</p> <ul style="list-style-type: none"> <li># understanding operational, credit and trading risk;</li> <li># risk analysis tools; and</li> <li># investment decision making.</li> </ul> <p>Finally, the subject will examine how to integrate this study of markets and risk into business planning.</p> |                |                            |                |                                    |                  |       |  |                  |       |                                |                  |       |                                |                  |       |
| <b>Objectives:</b>                       | <p>On completion of this subject students should be able to -</p> <ul style="list-style-type: none"> <li># Explain how different energy markets function;</li> </ul>   |                |                            |                |                                    |                  |       |  |                  |       |                                |                  |       |                                |                  |       |

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|---------------------------|--|
|                           | <ul style="list-style-type: none"> <li># Apply different risk management tools in investment decision making;</li> <li># Write a business case for different energy systems.</li> </ul>  |
| <b>Assessment:</b>        | <ul style="list-style-type: none"> <li>• Two assignments (37.5% each) not exceeding 25 pages each, one due mid-semester and the other at the end of semester</li> <li>• One written three-hour end-of-semester examination (25%)</li> </ul>                                |
| <b>Prescribed Texts:</b>  | None   |
| <b>Breadth Options:</b>   | This subject is not available as a breadth subject.  |
| <b>Fees Information:</b>  | Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>  |
| <b>Generic Skills:</b>    | <ul style="list-style-type: none"> <li>• Ability to communicate effectively with the community at large</li> <li>• Understanding of the social, cultural, global and environmental responsibilities of a professional, and the need for sustainable development</li> </ul> |
| <b>Related Course(s):</b> | Master of Energy Systems   |