

## 421-673 Sustainable Supply Chain Management

<b>Credit Points:</b>	12.500
<b>Level:</b>	Graduate/Postgraduate
<b>Dates &amp; Locations:</b>	2008, This subject commences in the following study period/s: Semester 2, - Taught on campus.
<b>Time Commitment:</b>	Contact Hours: 36 hours lectures and tutorials; Non-contact time commitment: 84 hours Total Time Commitment: Not available
<b>Prerequisites:</b>	None
<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; <p>&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> </p>
<b>Coordinator:</b>	Kim Hassall
<b>Subject Overview:</b>	This subject analyses the interrelationship between technology, product design, business strategy, customer needs and sustainability criteria using supply chain methodology. It identifies and characterises global supply chains, explains the interdependence between companies, and develops technological and business strategies to eliminate obstacles to effective supply chain management. Service, asset, financial, speed and sustainability metrics are developed for effective performance. Dynamic feedback systems are developed, where the life cycle of materials recycling, technology, the product design cycle and the resource cycle are interconnected in an economic, legislative and sustainability framework. Case studies are used extensively in this subject.
<b>Assessment:</b>	One three-hour written examination (60%) and one written assignment of approximately 2,500 words or equivalent (40%)
<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>	<p>On successful completion, students should be able to:</p> <ul style="list-style-type: none"> <li># determine the value proposition of supply chain management, where an entire network of companies collaborate to design, produce, deliver and service products, taking into account sustainability criteria in materials flow</li> <li># identification of global supply chains and determination of material, technology, intellectual property, information and capital flows</li> <li># recognise the interdependence of technology, manufacturing methodology, product design and sustainability criteria in the supply chain process</li> </ul>

	<ul style="list-style-type: none"> <li># understand and eliminate obstacles to effective supply chain management, including organisational isolation (silos), variability, and the causes and effects of the "Bullwhip Effect", brought about by unplanned demand oscillations up and down the supply chain</li> <li># align supply global chain strategies with needs and improve efficiency and cost savings through technological and business innovation</li> <li># develop global engineering and management strategies to improve supply chain responsiveness</li> <li># develop methods to set inventory levels, to hedge demand uncertainty, and to develop contracts for sharing business, technical and sustainability risk</li> <li># define a global framework for internet-enabled supply chain operations and e-business relationships</li> <li># develop service, asset, financial, speed and sustainability metrics for global supply chain performance improvements, and to align such metrics with business strategy and value proposition</li> <li># expand global supply chains to dynamic feedback systems, where the life cycle of materials recycling, technology, the design cycle and the resource cycle are interconnected in an economic, legislative and sustainability framework</li> <li># develop a design framework for sustainable and recyclable products, where a system-engineering approach is used to combine knowledge of design, manufacturing and processing with that of economics, environmental impact and legislation</li> </ul>
<b>Related Course(s):</b>	<p>Master of Engineering Management  Master of Engineering Science (Engineering Management)  Master of Engineering Structures  Master of Utilities Management</p>