

## 431-635 Multimedia Content Delivery

<b>Credit Points:</b>	12.50
<b>Level:</b>	9 (Graduate/Postgraduate)
<b>Dates &amp; Locations:</b>	2009, This subject commences in the following study period/s: Semester 1, - Taught on campus. On-campus.
<b>Time Commitment:</b>	Contact Hours: Thirty-six hours. Total Time Commitment: Estimated total time commitment of 120 hours.
<b>Prerequisites:</b>	4-year Electrical Engineering degree or equivalent
<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>	Dr Michael James Biggar
<b>Subject Overview:</b>	A study of underpinning requirements, technologies, standards, industry developments, trends and research directions in the delivery of multimedia (including audio and video) telecommunications services. It will cover enabling technologies (including video and audio compression, multiplexing techniques, error recovery, streaming solutions and multimedia storage) and will show how these components can be drawn together for integrated system solutions (such as IPTV, video-on-demand, digital TV and video calling).
<b>Objectives:</b>	<p>On completion of this subject, the students should have developed the skills and knowledge to understand current technology solutions and identify and work in emerging research directions in the field. Specifically, they should have a solid understanding of:</p> <ul style="list-style-type: none"> <li>• Requirements for multimedia services;</li> <li>• Multimedia signal representation;</li> <li>• Data compression techniques;</li> <li>• Video coding and representation</li> <li>• Audio and speech coding and representation;</li> <li>• Multimedia storage and retrieval</li> <li>• System components supporting the exchange and trade of multimedia content (e.g. Content Management, Digital Rights Management, Content Adaptation);</li> <li>• Digital Television technologies and architectures;</li> <li>• Video Calling (including Videoconferencing and videotelephony);</li> <li>• Multimedia over packet networks including the Internet;</li> <li>• Multimedia over mobile/wireless communications networks.</li> <li>• Video-on-Demand and IPTV</li> </ul>
<b>Assessment:</b>	<ul style="list-style-type: none"> <li>• Formally supervised written examination - 3 hours 50% (end of semester). This final exam is a hurdle. A student must pass the exam to pass the subject.</li> <li>• Written class test - 1 hour 20% (mid semester);</li> <li>• A project or homework assignments (1500 – 3000 word limit) 30% (end of semester).</li> </ul>

<b>Prescribed Texts:</b>	"Video Processing and Communications", by Yao Wang, Jorn Ostermann, Ya-Qin Zhang, Publisher: Prentice Hall. (Suggested, not mandatory.)
<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 completion of this subject, the students should have developed:</p> <ul style="list-style-type: none"> <li>• an advanced understanding of how a knowledge base evolves;</li> <li>• an ability to identify weaknesses and risks in technical solutions;</li> <li>• analytical, critical and creative thinking, with an aptitude for continued self-directed learning;</li> <li>• a sense of intellectual curiosity;</li> <li>• an ability to interpret data and research results;</li> <li>• an ability to learn in a range of ways, including through information and communication technologies;</li> <li>• an ability to evaluate and synthesise the research and professional literature;</li> <li>• a capacity to manage competing demands on time, including self-directed project work.</li> </ul>
<b>Related Course(s):</b>	Master of Telecommunications Engineering