

## 431-689 Information Theory

<b>Credit Points:</b>	12.500
<b>Level:</b>	Graduate/Postgraduate
<b>Dates &amp; Locations:</b>	This subject is not offered in 2008.
<b>Time Commitment:</b>	Contact Hours: 24 hours; Non-contact time commitment: 96 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>	Brian Krongold
<b>Subject Overview:</b>	Topics include: data compression and channel capacity, including Shannon's celebrated source coding theorem, and noisy channel coding theorem. Other topics are to be selected from coding theory, rate distortion theory, network information theory, and other applications to communications theory and statistical inference, data compression and channel capacity, including Shannon's celebrated source coding theorem, and noisy channel coding theorem.
<b>Assessment:</b>	Continuous assessment (40%) to the equivalent of 3-hours writing time. Final Exam 3 hours worth 60%. Students are required to pass the final examination in order to pass the subject as a whole.
<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>	The aim of this subject is to give students a rigorous introduction to the basic, fundamental theorems and proofs of the subject.
<b>Notes:</b>	This subject is not offered in 2008
<b>Related Course(s):</b>	Ph.D.- Engineering