

# GEOM90037 Photogrammetry

<b>Credit Points:</b>	12.50
<b>Level:</b>	9 (Graduate/Postgraduate)
<b>Dates &amp; Locations:</b>	This subject is not offered in 2011.
<b>Time Commitment:</b>	Contact Hours: 24 hours lectures and 24 hours lab exercises Total Time Commitment: 120 hours
<b>Prerequisites:</b>	N/A
<b>Corequisites:</b>	N/A
<b>Recommended Background Knowledge:</b>	N/A
<b>Non Allowed Subjects:</b>	N/A
<b>Core Participation Requirements:</b>	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: <a href="http://www.services.unimelb.edu.au/disability">http://www.services.unimelb.edu.au/disability</a>
<b>Contact:</b>	Clive Fraser <a href="mailto:c.fraser@unimelb.edu.au">c.fraser@unimelb.edu.au</a> ( <a href="mailto:c.fraser@unimelb.edu.au">mailto:c.fraser@unimelb.edu.au</a> )
<b>Subject Overview:</b>	Topics cover the mathematical foundations of multi-image photogrammetry; bundle adjustment and sensor self-calibration; feature extraction and image matching; digital photogrammetric workstations; orthorectification, automated restitution and DTM extraction in aerial photogrammetry; GPS aerial triangulation; mathematical models, imaging characteristics and mapping products from high-resolution satellite imagery; close-range digital photogrammetry; and industrial and engineering applications of vision metrology.
<b>Objectives:</b>	Upon completion of this subject students will have the ability to: <ul style="list-style-type: none"> <li># describe the principles of modern multi-image photogrammetry, both topographic and non-topographic;</li> <li># use image measurement and processing software;</li> <li># discuss product characteristics from all ranges of imagery.</li> </ul>
<b>Assessment:</b>	One 2 hour written exam at the end of semester (50%) One 1 hour mid term test (20%) Six 4 page bi-weekly assignments (total 30%) Students must achieve a grade of at least 50% in the written exam in order to pass the subject.
<b>Prescribed Texts:</b>	TBA
<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 apply knowledge of science and engineering fundamentals</li> <li># Ability to undertake problem identification, formulation and solution</li> <li># Ability to utilise a systems approach to complex problems, design and operational performance</li> <li># Capacity for creativity and innovation</li> <li># Capacity for lifelong learning and professional development</li> </ul>