ELEN90045 Electronic Manufacturing

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2013.
Time Commitment:	Contact Hours: 1 two hour lecture per week Total Time Commitment: 120 hours
Prerequisites:	Prerequisites for this subject are **Subject** / **Study Period Commencement:** / **Credit Points:** ELEN90043 Device Models / Not offered 2013 / 12.50 ELEN90048 Passive Component Design & Simulation / Not offered 2013 / 12.50
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	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: http://www.services.unimelb.edu.au/disability/
Contact:	Prof Stan Skafidas Email: **sskaf@unimelb.edu.au (mailto:sskaf@unimelb.edu.au)**
Subject Overview:	Packaging, Testing and ESD protection are critical components in the design of real chipsets and systems. This subject will enable students to design packaging and ESD systems. Students will also be introduced to international standards and mechanisms to establish the MTBF and reliability of systems.
Objectives:	Upon successful completion of this subject students should be able to: # Describe the issues involved in nano-electronic system packaging; # Calculate thermal efficacy of packages; # Build test structures and systems to enable production level testing of nano-electronic systems.
Assessment:	One, written examination (not exceeding three hours) at the end of semester, worth 70%; Continuous assessment of submitted project work (not exceeding 30 pages in total over the semester), worth 30%.
Prescribed Texts:	TBA
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	# Ability to apply knowledge of science and engineering fundamentals

	# Ability to undertake problem identification, formulation, and solution # Ability to utilise a systems approach to complex problems and to design andoperationalperformance # Ability to build and test real world systems that meet industry specialisation and manufacturing standards # Capacity for lifelong learning and professional development
Related Course(s):	Master of Nanoelectronic Engineering