

ELEN90024 Wireless Systems

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2014.
Time Commitment:	Contact Hours: Up to 36 hours of lectures Total Time Commitment: 200 hours
Prerequisites:	Enrolment in a research higher degree(Masters or PhD) in Engineering
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:	Dr. Marcus Brazil Email: brazil@unimelb.edu.au (mailto:brazil@unimelb.edu.au)
Subject Overview:	Topics include: Microwave circuits; transmission lines and distributed circuit elements; printed circuit antenna; introduction to computer aided analysis and design tools; radio frequency dependant propagation and fading characteristics; physical layer systems architecture; building blocks; performance metrics; characterisation of wireless systems.
Learning Outcomes:	The aim of this subject is to give students an introduction to the theoretical techniques and physical principles required for understanding of modern wireless systems.
Assessment:	Continuous assessment of homework assignments, not exceeding 30 pages in total over the semester, worth 40%; Final examination at the end of semester, worth 60%. Hurdle requirement: Students must pass the written exam to pass the subject.
Prescribed Texts:	None
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:	<ul style="list-style-type: none"> # Ability to apply knowledge of basic science and engineering fundamentals; # In-depth technical competence in at least one engineering discipline; # Ability to undertake problem identification, formulation and solution; # Ability to utilise a systems approach to design and operational performance; # Expectation of the need to undertake lifelong learning, capacity to do so; # Capacity for independent critical thought, rational inquiry and self-directed learning; # Intellectual curiosity and creativity, including understanding of the philosophical and methodological bases of research activity; # Openness to new ideas and unconventional critiques of received wisdom; # Profound respect for truth and intellectual integrity, and for the ethics of scholarship

Notes:	LEARNING AND TEACHING METHODS The subject is delivered through lectures and homework assignments INDICATIVE KEY LEARNING RESOURCES Students are provided with lecture notes, including worked examples, assignment problems, and recommended reading lists comprising textbooks and journal articles. CAREERS / INDUSTRY LINKS Exposure to research literature and the rigour expected at the level of postgraduate study.
Related Course(s):	Master of Philosophy - Engineering Ph.D.- Engineering