B-ENG Electrical Engineering stream

Year and Campus:	2014
Coordinator:	Associate Professor Margreta Kuijper
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Overview:	**THE COURSE STRUCTURE BELOW ONLY APPLIES TO RE-ENROLLING STUDENTS WHO COMMENCED THEIR STUDIES PRIOR TO 2010** please see Bachelor of Engineering (B-ENG)
Learning Outcomes:	See Bachelor of Engineering (B-ENG)
Structure & Available Subjects:	Completion of 400 points of study culminating in a project in the final year. The structure of the Bachelor of Engineering degree requires completion of specific subjects as part of this stream. The majority of subjects have one or more prerequisites and therefore the sequence in which subjects are taken is very important. It is unlikely that prerequisite waivers will be granted for these engineering subjects and therefore students should take care to select subjects in one study period that satisfy prerequisites for subjects in later study periods.
Subject Options:	The following subjects are required for this stream of the Bachelor of Engineering.

First Year (normally 100 points taken in Year 1)

Subject	Study Period Commencement:	Credit Points:
ENGR10003 Engineering Systems Design 2	Summer Term, Semester 2	12.50
ENGR10004 Engineering Systems Design 1	Semester 1, Semester 2	12.50
MAST10005 Calculus 1	Semester 1, Semester 2	12.50
MAST10006 Calculus 2	Semester 1, Semester 2	12.50
PHYC10003 Physics 1	Semester 1	12.50
PHYC10004 Physics 2: Physical Science & Technology	Semester 2	12.50

Plus

- Two breadth subjects (i.e. 25.00 credit points total)

N.B.

- Students who have completed VCE Specialist Mathematics (or equivalent) are exempt from MAST10005 Calculus 1 and should therefore enrol in MAST10006 Calculus 2 and MAST10007 Linear Algebra.
- Students with a high level of achievement in mathematics may enrol in both MAST10008 Accelerated Mathematics 1 and MAST10009 Accelerated Mathematics 2 instead of both MAST10006 Calculus 2 and MAST10007 Linear Algebra.
- Students with a high level of achievement in physics may enrol in PHYC10001 Physics 1 Advanced and PHYC10002 Physics 2 Advanced instead of both PHYC10003 Physics 1 and PHYC10004 Physics 2: Physical Science & Technology.

Second Year (normally 100 points taken in Year 2)

Subject	Study Period Commencement:	Credit Points:
COMP20005 Engineering Computation	Semester 1, Semester 2	12.50
ELEN20005 Foundations of Electrical Networks	January, Semester 2	12.50
ENGR20004 Engineering Mechanics	Summer Term, Semester 1, Semester 2	12.50
MAST10007 Linear Algebra	Summer Term, Semester 1, Semester 2	12.50

Plus one of

Subject	Study Period Commencement:	Credit Points:
MAST20026 Real Analysis	Semester 1, Semester 2	12.50
MAST20029 Engineering Mathematics	Summer Term, Semester 1, Semester 2	12.50

Plus

One breadth subject (i.e. 12.50 credit points total)
One science elective (i.e. 12.50 credit points total)
One approved elective (i.e. 12.50 credit points total)

N.B.

Students who have completed VCE Specialist Mathematics (or equivalent) and completed either both MAST10006 Calculus 2 and MAST10007 Linear Algebra or both MAST10008 Accelerated Mathematics 1 and MAST10009 Accelerated Mathematics 2 in Year 1 can replace MAST10007 Linear Algebra in the table above with a science elective.
A science elective is any subject available as science credit in the Bachelor of Science course (B-SCI). Refer to **Science-credited subjects - new generation B-SCI and B-ENG (../../view/current/%21B-SCI-SPC%2B1021)** for a full list of subjects. Science electives may have prerequisites.
An approved elective is a science elective or an engineering elective or breadth.

Third Year (normally 100 points taken in Year 3)

Subject	Study Period Commencement:	Credit Points:
ELEN30009 Electrical Network Analysis and Design	Semester 1	12.50
ELEN30010 Digital System Design	Semester 1	12.50
ELEN30011 Electrical Device Modelling	Semester 2	12.50
ELEN30012 Signals and Systems	Semester 2	12.50
ELEN30013 Electronic System Implementation	Semester 2	12.50

Plus

Two approved electives (i.e. 25.00 credit points total)
One engineering elective (i.e. 12.50 credit points total)

N.B.

An engineering elective is any subject offered by the Melbourne School of Engineering. A list of subjects on offer can be obtained by an 'Advanced Search' of this Handbook. Search for Faculty: 'Engineering'.

Fourth Year (normally 100 points taken in Year 4)

Subject	Study Period Commencement:	Credit Points:

ELEN90056 Electronic Circuit Design	Semester 1	12.50
ELEN90066 Embedded System Design	Semester 2	12.50
ELEN90067 Electrical Engineering Capstone Project	Year Long, Semester 1	25

Plus Electrical Engineering electives (50 points) selected from:

Subject	Study Period Commencement:	Credit Points:
ELEN90054 Probability and Random Models	Semester 1	12.50
ELEN90055 Control Systems	Semester 1	12.50
ELEN90057 Communication Systems	Semester 2	12.50
ELEN90058 Signal Processing	Semester 2	12.50
ELEN90059 Lightwave Systems	Semester 1	12.50
ELEN90060 Power System Analysis	Semester 1	12.50
ELEN90061 Communication Networks	Semester 2	12.50
ELEN90062 High Speed Electronics	Semester 2	12.50

Related Course(s): Bachelor of Engineering