

Study Guide
Bachelor of Engineering (Electrical & Electronic)/Master of Engineering (Power Systems) Integrated program for completion in 5 years (full-time)

Semester 1		Semester 2	
Year 1 (48 points)			
MATH1020	Calculus, Statistics and probability	MATH1010	Calculus and Linear Algebra
PHYS1101	Advanced Physics A	GENG1003	Introduction to Professional Engineering
GENG1001	Engineering: Introduction to Engineering Mechanics	ELEC1300	Digital Systems 1
GENG1002	Engineering: Introduction to Electrical & Electronic Engineering	ELEC1302	Power and Machine Technologies (Note 1)
Year 2 (48 points)			
MATH2040	Engineering Mathematics	ELEC2306	Fundamentals of Electrical Engineering (Note 2)
ELEC2304	Physical Electronics 2	GENG2140	Modelling and Computer Analysis for Engineers
ELEC2300	Circuits and Electronic Systems 2	ELEC2305	Signals and Systems 2
ELEC2301	Digital System Design	ELEC2310	Computer Architecture*
Year 3 (48 points)			
ELEC3330 OR ELEC3320	Engineering Design Project OR Process Instrumentation and Control	ELEC3306	Signals and Systems 3
ELEC3302	Communications Systems	ELEC3303	Electromagnetic Theory
ELEC3301	Circuits and Electronic Systems 3	ELEC3305	Power and machines
ELEC2303	Embedded Systems*	ELEC3307	Engineering Management and Industrial Practice
Year 4 (48 points)			
ELEC4308	Electrical and Electronic Engineering Project Part 1	ELEC4309	Electrical and Electronic Engineering Project Part 2
ELEC4306	Power Electronics and Drives	ELEC4307	Power Transmission and Control
Two other option units			
ELEC4300	Control Engineering		
MECH4400	Engineering for Sustainable Development	OR ELEC4332	Project Engineering Practice
Other stream units			
Year 5 (48 points)			
ELEC8347	Dissertation ME (PS) Part 1	ELEC8348	Dissertation ME (PS) Part 2
ELEC8349	Dissertation ME (PS) Part 3		
Five units to be selected from the following list:			
ELEC8346	Power Systems Modelling	ELEC8342	HVDC and FACTS
ELEC8343	Numeric Protection, Communications and Transducers	ELEC8340	Transmission System Design, Control and Operation
ELEC8341	Energy Management System	ELEC8345	Power Systems Control
ELEC8344	Power Quality and Corona Noise		

Units in bold represent elective/optional units from the BE(EE) Program that must be taken in order to complete the Integrated Program in 5 years.

* At least one of the Embedded Systems and Computer Architecture needs to be taken. If both are not taken, the vacant slot may be filled with an elective.

Note 1: Students cannot take ELEC1302 Power and Machine Technologies if already taken ELEC2302 Electromagnetics and Electromechanics. If starting degree in 2007 then must do ELEC1302 Power and Machine Technologies.

Note 2: Cannot take ELEC2306 Fundamentals of Electrical Engineering if already completed MATH2218 Mathematics E2B.

