SOFTWARE ENGINEERING, TESTAMUR MAJOR (T105)

Western Sydney University Major Code: T105

Previous Code: KT3175.1

Available to students in other Western Sydney University programs?
No

A major in Software Engineering provides a solid foundation in theoretical knowledge on computer software systems with practical acquisition of relevant industry skills. The program examines the processes of software design, development and maintenance. It also covers software specification, analysis, design, testing, implementation and maintenance.

This major is designed in response to the growing demand for innovative, reliable and efficient software systems which are utilised in a broad field of industries. The program is offered inside an industry hub which provides students with direct access and firsthand experience with these industries.

Location

Campus	Mode	Advice
Parramatta Campus - Victoria Road	Internal	Program Advice (https://directory.westernsydney.edu.au/search/email/beng@westernsydney.edu...

Testamur Major Structure

This Major is delivered at Engineering Innovation Hub – Hassall St, Parramatta City.

Course	Title	Credit Points
Year 1		
Autumn session		
MATH 1034	Mathematics for Engineers 1 (Advanced)	10
ENGR 1024	Introduction to Engineering Practice	10
MATH 1006	Discrete Mathematics	10
ENGR 1045	Engineering Programming Fundamentals	10
	Credit Points	**40**
Spring session		
COMP 2021	Software Engineering Fundamentals	10
MATH 1035	Mathematics for Engineers 2 (Advanced)	10
COMP 2014	Object Oriented Programming	10
COMP 2008	Computer Organisation	10
	Credit Points	**40**
Year 2		
Autumn session		
ELEC 2016	Mathematics for Software Engineers	10
ELEC 2018	Systems Modelling and Design	10
ELEC 2017	Requirements and Design Workshop	10
INFS 2001	Database Design and Development	10
	Credit Points	**40**
Spring session		
ELEC 2019	Workshop on Reasoning about Programs	10
COMP 3028	Software Construction	10
COMP 2004	Computer Networking	10
ELEC 1003	Electrical Fundamentals	10
	Credit Points	**40**
Year 3		
Autumn session		
COMP 2009	Data Structures and Algorithms	10
COMP 3029	Software Engineering Industry Project	10
ELEC 1001	Digital Systems 1	10
ELEC 2001	Circuit Theory	10
	Credit Points	**40**
Spring session		
INFS 3008	Formal Software Engineering	10
Select one Alternate subject		10
Select two electives		20
Industrial Experience		
ENGR 3017	Industrial Experience (Engineering)	0
	Credit Points	**40**
Year 4		
Autumn session		
ELEC 2004	Electronics	10
ENGR 4037	Advanced Engineering Thesis 1: Preliminary Investigations	10
Select two electives		20
	Credit Points	**40**
Spring session		
ENGR 4036	Advanced Engineering Thesis 2: Detailed Investigations	10
Select three Alternate subjects		30
	Credit Points	**40**
	Total Credit Points	**320**

Alternate Subjects

Subject	Title	Credit Points
HLTH 2003	Biomechanics	10
ENGR 4038	Biomedical Electronics	10
ELEC 3004	Digital Systems 2	10
BIOS 1022	Introduction to Human Biology	10
BIOS 1035	Anatomy and Physiology in Health	10
ELEC 4003	Power Quality	10
ELEC 4006	Sustainable Energy Systems	10

Optional Electives

The following subject is an optional elective subject offered to students who are engaged in a School approved project. This subject can be taken during the third year of this program, however, permission is required to enrol in the subject.

Subject	Title	Credit Points
ENGR 3022	Special Technical Project	10

Equivalent Subjects

The subjects listed below count towards completion of this program for students who passed these subjects in 2021 or earlier.

MECH 4005 Advanced Engineering Thesis 1: Preliminary Investigations replaced by ENGR 4037 Advanced Engineering Thesis 1: Preliminary Investigations

MECH 4006 Advanced Engineering Thesis 2: Detailed
Investigations replaced by ENGR 4036 Advanced Engineering Thesis 2:
Detailed Investigations

Related Programs