UNIVERSITY OF CANBERRA

Bachelor of Software Engineering (560AA.5)

Please note these are the 2017 details for this course

Domestic students

Selection rank	
Delivery mode	
Location	
Duration	3.0 years
Faculty	Faculty of Science and Technology
Discipline	Academic Program Area - Technology
UAC code	
English language requirements	An IELTS Academic score of 6.0 overall, with no band score below 6.0 (or equivalent).

View IELTS equivalences

International students

Academic entry requirements	To study at UC, you'll need to meet our academic entry requirements and any admission requirements specific to your course. Please read your course admission requirements below. To find out whether you meet UC's academic entry requirements, visit our academic entry requirements page.

View UC's academic entry requirements

Delivery mode	
Location	
Duration	3.0 years
Faculty	Faculty of Science and Technology
Discipline	Academic Program Area - Technology
CRICOS code	054017M
English language requirements	An IELTS Academic score of 6.0 overall, with no band score below 6.0 (or equivalent). View IELTS equivalences

About this course

Design and program your own software system

If software engineering is your career focus, then there's no better place to study than the University Of Canberra. Our Bachelor of Software Engineering degree is designed for students interested in focusing on the design and construction of software systems.

Students can complete a professional minor in a wide range of disciplines such as computer security, network computing, games development, digital forensics, enterprise computing, intelligent systems or infrastructure management.

Study a Bachelor of Software Engineering at UC and you will:

- achieve comprehensive insight into engineering aspects of computer science
- study the current programming languages at an intensive level
- understand the methodology of software systems engineering using analysis and specification methods such as UML, XML, structured and soft systems methodologies
- learn to design and build systems and software using specialist engineering tools
- work within modern development environments that include Windows, Linux, mobile and cloud computing.

Work Integrated Learning

In your final year you will produce a team project to address the needs of a business, government or community entity.

Career opportunities

- Software engineer
- Programmer
- Business or systems analyst
- Database programmer
- System test engineer
- Web developer
- Network and system administrators
- ICT security engineer
- Software engineering consultant

Course specific information

This course in accredited by the professional body, the Australian Computer Society, at the Professional level. Graduates can also continue on to complete an honours, masters or a higher research degree course.

Professional accreditation

This course in accredited by the professional body, the Australian Computer Society, at the Professional level.

Admission requirements

Normal UC requirements for admission to an undergraduate course.

Assumed knowledge

ACT: Mathematical Methods. NSW: Mathematics.

Periods course is open for new admissions

This course is not open for new admissions.

Credit arrangements

There are currently no formal credit transfer arrangements for entry to this course. Any previous study or work experience will only be considered as part of the application process in accordance with current course rules and university policy.

Course requirements

Bachelor of Software Engineering (560AA) | 72 credit points

Required - 51 credit points as follows

Expand All | Collapse All

Major in Software Engineering (BSE) (Restricted) (MJ0108) | 21 credit points

Required - Must pass 21 credit points as follows

Software Technology 1 (4483) | 3 credit points — Level 1

Introduction to Software Engineering (5531) | 3 credit points — Level 1

Discrete Mathematics (6698) | 3 credit points — Level 1

Object Oriented Software Design (7165) | 3 credit points — Level 3

Software Engineering Practice (7169) | 3 credit points — Level 3

Software Technology 2 (7170) | 3 credit points — Level 2

System Software (7171) | 3 credit points — Level 2

Required Units - Must pass 30 credit points as follows

Database Design (5915) | 3 credit points — Level 1

Systems Analysis and Modelling (6365) | 3 credit points — Level 2

Distributed Systems Technology (7159) | 3 credit points — Level 3

Web Design and Programming (7175) | 3 credit points — Level 2

Professional Practice in IT (7722) | 3 credit points — Level 1

Software Systems Architecture (8745) | 3 credit points — Level 2

Mobile Technologies (8878) | 3 credit points — Level 2

Information & Communication Technology Project (9785) | 6 credit points — Level 3

Restricted Choice - May select from

Computer Technologies and Network Security - Must pass 9 credit points from the following

Information Systems Management (7163) | 3 credit points — Level 3

Security and Support in IT (7167) | 3 credit points — Level 2

Forensic Statistics (7904) | 3 credit points — Level 2

Computer and Network Security (8019) | 3 credit points — Level 3

Gaming Technologies - Must pass 9 credit points from the following

Game Programming Techniques (7160) | 3 credit points — Level 3

Soft Computing (7168) | 3 credit points — Level 3

Visual and Interactive Computing (7174) | 3 credit points — Level 3

Virtual Worlds Technology (8698) | 3 credit points — Level 3

Networked Technologies - Must pass 9 credit points from the following

Wireless Networks (8227) | 3 credit points — Level 2

Introduction to Network Engineering (8741) | 3 credit points — Level 2

Enterprise and Cloud Computing (9281) | 3 credit points — Level 3

Network Architecture (9428) | 3 credit points — Level 4

Mathematics - Must pass 9 credit points from the following

- Students choosing the Mathematics Theme must undertake four branches of Mathematics.

Coding Theory (6539) | 3 credit points — Level 3

Mathematical Structures (6543) | 3 credit points — Level 2

Discrete Mathematics (6698) | 3 credit points — Level 1

Mathematical Modelling (8103) | 3 credit points — Level 2

Intelligent Systems - Must pass 9 credit points from the following

Introduction to Statistics (6540) | 3 credit points — Level 1

Business Intelligence Systems (7156) | 3 credit points — Level 3

Soft Computing (7168) | 3 credit points — Level 3

Data Analytics and Business Intelligence PG (8697) | 3 credit points — Level P

No Specialisation - Must pass 9 credit points from the following

Advances in Information Sciences 1 (7897) | 3 credit points — Level 3

Advances in Information Sciences 2 (7898) | 3 credit points — Level 3

Information Sciences Internship (7899) | 3 credit points — Level 3

Contemporary IT & E Issues (9788) | 3 credit points — Level 3

Technology and Engineering Management (9879) | 3 credit points — Level 3

Open Electives - 12 credit points from the following

- - Open electives from any part of the University, either as a minor or individual units. In choosing electives students should note no more than 30cp at level one is permitted for the entire course.
- - Students may wish to use their open electives to complete one of the themes above.

In addition to course requirements, in order to successfully complete your course you must meet the inherent requirements. Please refer to the inherent requirements statement applicable to your course

Typical study pattern
UC - Canberra, Bruce

Standard Full Time, Semester 1 Commencing

Year 1

Semester 1

Introduction to Software Engineering (5531)

Professional Practice in IT (7722)

Open Elective Unit

Semester 2

Database Design (5915)

Discrete Mathematics (6698)

Software Technology 1 (4483)

Open Elective Unit

Year 2

Semester 1

Mobile Technologies (8878)

Software Technology 2 (7170)

System Software (7171)

Systems Analysis and Modelling (6365)

Semester 2

Web Design and Programming (7175)

Restricted Choice Unit

Open Elective Unit

Software Systems Architecture (8745)

Year 3

Semester 1

Open Elective Unit

Software Engineering Practice (7169)

Restricted Choice Unit

Object Oriented Software Design (7165)

Semester 2

Restricted Choice Unit

Distributed Systems Technology (7159)

Information & Communication Technology Project (9785)

Course information

Course duration

Standard six semesters full-time or equivalent. Maximum twenty semesters.

Learning outcomes

Learning outcomes	Related graduate attributes
Knowledge and skills of the cutting edge development in the information technology (IT) industry and application of the knowledge and skills to real life IT systems and their business environments, policies, and management, independently and/or work in a team.	Analysis and enquiry Working independently and with others
Communication skills in listening, reading, speaking, explaining, teaching, and writing from and to audiences of different backgrounds and papers of different scops and levels.	Professionalism and social responsibility Communication; Problem solving Working independently and with others
Knowledge, skills, understanding and application of the investigation, analysis, and synthesis to IT systems and their business environments, policies, and management with a high level of professional ethics, responsibilities, values and standards.	Analysis and enquiry Problem solving Professionalism and social responsibility Personal attributes: critical thinking, reflective practice, thriving in an environment of change
Expertise and skills to critique, synthesise and apply new development, skills, knowledge, and standards in the IT fields to real world IT systems, with respect to their business environments, policies, and management.	Analysis and enquiry Problem solving

	Personal attributes: critical thinking, reflective practice, thriving in an environment of change
Solid foundation of the relevant theories and the basic principles in IT fields, including business, information systems, system analysis and modelling, system administration, security, networking, software development, and artificial intelligence etc.; from the foundation to acquire up-to-date knowledge and skills in the future.	Analysis and enquiry Personal attributes: critical thinking, reflective practice, thriving in an environment of change
Expertise and skills in research to test established theories against a body of knowledge in IT fields; expertise and skills in designing and testing hypothesis for problem solving and conducting research; expertise and skills in contributing new knowledge and skills to the IT fields.	Analysis and enquiry Problem solving Personal attributes: critical thinking, reflective practice, thriving in an environment of change

Majors

- Major in Software Engineering (BSE) (Restricted) (MJ0108)

Awards

Award	Official abbreviation
Bachelor of Software Engineering	BSE

Honours

High performing students may be eligible to enrol in the course Honours in Information Sciences.

Enquiries

Student category	Contact details

Current and Commencing Students	Please contact the University Student Centre by Email student.centre@canberra.edu.au or Phone 1300 301 727
Prospective International Students	Email international@canberra.edu.au or Phone +61 2 6201 5342
Prospective Domestic Students	Email study@canberra.edu.au or Phone 1800 UNI CAN (1800 864 226)

Download your course guide

Scholarships

Find the scholarship that's the right fit for you

Explore Scholarships