EDITH COWAN COLLEGE AUSTRALIA

DIPLOMA OF SCIENCE (COMPUTING/IT)

This program introduces you to the disciplines of computer science, software engineering, computer security, IT and other emerging fields. All computing programs at ECU are developed in consultation with the IT industry and have received the Australian Computer Society's highest level of accreditation (Level 1). This program is taught on ECU's state-of-the-art Joondalup campus.

The program consists of 8 units of study and can be completed over 2 or 3 trimesters. Students who complete the ECC Diploma of Science (Computing/IT) will receive 120 credit points advanced standing, the equivalent of the first year, in the respective Bachelor degree at ECU. A minimum of 50 percent pass in all units is required for progression to ECU.

UNIT DESCRIPTORS

CSG1105D – Applied Communications

This unit introduces students to current and proposed telecommunications and networking infrastructures and their application in business and communications services. With a primary focus on the Internet and the World Wide Web, students examine in detail the principles, processes and technologies associated with data communications and computer networking, applications of the major carriage media, communications standards and emerging broadcast and narrowcast technologies based on communications channels.

CSG1132D – Communicating in an IT Environment

This unit introduces students to knowledge and skills in rational enquiry and professional written, oral and visual communication required at University and by the Australian Information and Communications Technology (ICT) industry. It also provides foundations in information, statistical and data literacy.

CSG1102D – Operating Systems

(Pre-requisite: ENS1161D – Computer Fundamentals)
This unit introduces students to: functions of operating systems; multiprocessing; file device; memory and processor management; deadlocks; concurrency; protection and security; network and distributed system structures.

CSG1207D – Systems and Database Design

(Pre-requisite: CSI1241D – Systems Analysis)
This unit introduces students to the concepts of relational databases, including database design via normalisation and entity-relationship modelling in order to solve problems. It exlores the use of Structured Query Language (SQL) to create, populate and administer relational databases and to perform complex queries upon the data inside them.

CSI1101D – Computer Security

This unit covers the threats to computer systems and countermeasures that can be put in place to minimise them. The areas covered are: aims of computer security and general computer security threats, malicious code including viruses, trojan horses, worms and other forms of hostile executable code. Students also consider the history and fundamental concepts of encryption, current encryption techniques and the social issues that surround the use of such techniques.

AUSTRALIA ECU UNIVERSITY EDITH COWAN

Diploma of Science (Computing / IT)

CSI1241D – Systems Analysis

This unit develops a student's understanding of the components of systems analysis: definition of a system, the role of and context of systems analysis, interfacing with the user; the life cycle of a management information system from the feasibility study through to the post-implementation audit. Applying skills by fact gathering, interviewing, presenting, group working, documenting an existing system; analysis techniques involving use cases, state diagrams, data modelling, data from diagrams, data dictionaries, decision tables, web page, screen and report design.

CSP1150D – Programming Principles

This unit provides an introduction to the principles of programming, including program design, development and testing, data types, control statements, methods, arrays, classes, objects and inheritance.

ENS1161D – Computer Fundamentals

This unit presents fundamental topics in discrete mathematics that are essential to computing studies including logic, Boolean algebra and logic circuits, set theory, counting techniques, computer arithmetic, graph theory and matrix algebra with applications to computing. The unit also provides an introduction to the representation of numbers in a computer, and assembly language programming for a microprocessor.

Australian Qualifications Framework

Important information for students	ECC First Trimester	Entry into ECU Year 2
International students must study 3 or 4 units per trimester. ECC reserves the right to cancel classes due to insufficient demand. Timetable clashes may be unavoidable. The order of units selected in the first and second trimester are recommendations except where a pre-requisite applies.	CSG1132D Communicating in an IT Environment	**Bachelor of Computer Science** (**8 credits**) majoring in: • Cyber Security • Software Engineering **Bachelor of Information Technology** (**8 credits**) majoring in: • Cyber Security • Software Engineering **Bachelor of Science (Cyber Security)** (**8 credits**)
	CSI1241D Systems Analysis	
	ENS1161D Computer Fundamentals	
	CSP1150D Programming Principles	
	ECC Second Trimester	
	CSG1105D Applied Communications	
	CSI1101D Computer Security	
	CSG1102D Operating Systems	
	CSG1207D Systems and Database Design	

Methods of assessment at ECC

Methods of assessment may differ depending on the program and subjects you choose. Most subjects will be assessed through a combination of written examinations and assignments, essays, presentations, seminars and tutorial participation. Some coursework will include group-based projects and practical activities. At the beginning of each unit, students are given an outline that includes due dates for the completion of assignments. Students who fail to meet these submission deadlines may be penalised even though the work was completed. Attending all classes is essential in order to be successful at ECC.
Flyers are current as of 29 September 2016.

edithcowancollege.edu.au
facebook.com/EdithCowanCollege

Edith Cowan College at
Edith Cowan University
Building 31 Joondalup Campus
270 Joondalup Drive
Joondalup WA 6027 Australia

T +61 8 6279 1100
F +61 8 6279 1111
E info@edithcowancollege.edu.au
Edith Cowan College is part of the Navitas Group
CRICOS provider codes: ECC 01312J; Edith Cowan University IPC 00279B