

Internet Systems

Bachelor of Information Technology and Systems

The advent of the internet has seen the development of a new phase of constructing computer systems that exploit the internet's capabilities.

There is an on-going demand for powerful, yet flexible, internet-based systems which enable users to perform a myriad of commercial, educational, governmental or social tasks. Using the web is an integral part of life.

The Internet Systems major in the Bachelor of Information Technology and Systems gives students a thorough grounding in the technical aspects of the internet and developing internet applications.

This major is for those students with a keen interest in the Internet. As well as the core units common to the other majors of this degree, it includes study in network administration, web applications development and content management. Internet applications study includes several web development languages.

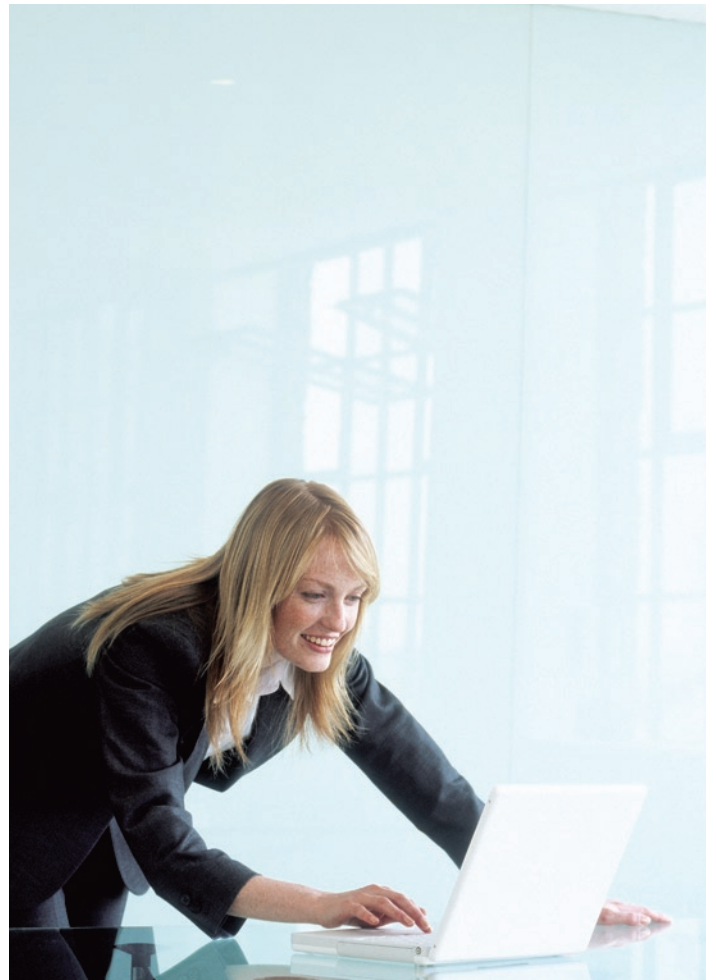
Students also complete a significant group project, building an industry strength internet site.

This major may be combined with a second BITS major, to enhance your career opportunities.

Career information

After graduation, you can consider careers in a wide range of information technology areas, including:

- Internet developer
- Java and/or .NET developer
- Corporate webmaster
- Mobile applications developer
- Mobile commerce developer
- Analyst/programmer



Bachelor of Information Technology and Systems

Internet Systems major

Monash course code: 3334. CRICOS code: 054529J.

Course structure

First year

FIT1001 Computer systems – Introduces basic computer hardware and operating systems software with emphasis on the concepts required to understand the low-level and internal operations of computer systems.

FIT1002 Computer programming – Provides an overview of programming and its role in problem-solving and strategies for meeting user requirements and for designing solutions to programming problems.

FIT1003 IT in organisations – Provides the organisational and social context for the technical core units, and introduces students to the professional roles and responsibilities of IT practitioners.

FIT1004 Database – Introduces the principles and concepts of database systems, including planning, designing, using and implementing a data model using an enterprise-scale relational database system.

FIT1005 Networks and data communications – Introduces the fundamentals of distributed networked environments, and provides knowledge of internetworking standards and understanding of the networking architecture, technology and operation.

FIT1011 Web systems 1 – Structure of the internet. XHTML. Website structure and navigation. Basic graphic design. Digital media. Mobile web design. XML documents: structure, validation and use in web design.

Two elective units – These are free choice level 1, 2 or 3 units which may be taken from within the Faculty of Information Technology or from any other faculty in the university.

Second year

FIT2001 Systems analysis and design – Provides an overview of the main techniques used for carrying out analysis and specification of the design of a computer system, with a focus on the unified modeling language (UML).

FIT2002 IT project management – Provides both a theoretical and practical overview of processes involved in managing large projects, with particular emphasis on projects common to the IT industry.

FIT2018 Network administration – System components and network structures, technology and protocols; system administration; administration methods and standards; management issues; network simulation, documentation and security, common services.

FIT2028 Web systems 2 – XML Schema Language. XSLT. XPATH. Server-side scripting: PHP. Scripting techniques for building dynamic web page interfaces for accessing server-side data stores. Ajax.

FIT2052 Electronic business – The ways organisations and businesses use the internet and related technologies (including mobile systems and web services) to securely conduct business activities. Includes analysis and design of an e-business solution as part of a preliminary business case.

FIT3031 Information and network security – Students learn about common information risks and requirements, mechanisms and architectures to ensure information security over communication networks, and privacy and ethics issues.

Two elective units – These are free choice level 1, 2 or 3 units which may be taken from within the Faculty of Information Technology or from any other faculty in the university.

Third year

FIT3047 and FIT3048 Industrial project – Students have the opportunity to experience working in a small project team and, under the direction of a supervisor, develop a distributed information system or network solution in response to a client's requirements.

FIT3043 Web systems 3 – Client-side scripting. ASP.Net with C++. State handling. Using data sources: manipulating XML as a data store. Server controls. Page life cycles. Code behind. .NET Assemblies. XML Web services. System Configuration and optimisation. Authentication. Ajax with ASP.

FIT3060 Service oriented computing – investigates some of the latest developments in the field of web applications. Known as Web Services, they make use of a number of standards to allow business to business (B2B) systems over the World Wide Web.

FIT3063 Human-computer interaction – The theories and principles of the interactions between humans and computers, their application in the design of interfaces, together with the input and output devices used to interact with computer systems. Usability testing and evaluation of GUI systems.

One information technology level 3 elective unit – this must be taken from within the Faculty of Information Technology.

Two elective units – These are free choice level 2 or 3 units which may be taken from within the Faculty of Information Technology or from any other faculty in the university.

*Degree name pending government approval.

Disclaimer: While the information provided in this document was correct at the time of publication, Monash University reserves the right to alter procedures, fees and regulations should the need arise. Students should carefully read all official correspondence, and other sources of information for students (such as websites) to be aware of changes to the information contained in this document. This information was published correct as at November 2007.

CRICOS provider: Monash University 00008C. BITS-INS-07a

Find out more today!

Contact the Monash South Africa School of Information Technology:

Tel: +27 11 950 4030
email: sit@monash.ac.za