



** Please note – the information contained in this handout is accurate as at January 2011. Information regarding employment prospects/salary/growth is based on information derived from www.skillsinfo.gov.au, www.joboutlook.gov.au and Careers and Employment's own research.

2011

Please note: the information contained in this document was current as of January 2011. Refer to www.swinburne.edu.au/courses/ for the most recent updates. Refer to the School of Information and Communication Technologies website www.tafe.swinburne.edu.au/ict/ for further information and a list of the courses offered in this area.

Industry overview

The Australian Information and Communications Technology (ICT) sector is a dynamic industry spanning a diverse array of businesses in areas from computer hardware and software, networking and communications to the Internet, telecommunications, multimedia and more.

As technology becomes ever more entrenched in our modern lifestyle, enabling every aspect of commerce, government, education, communications and entertainment, the ICT sector is playing an increasing role in driving economic growth and prosperity, accounting for 6% of GDP and 13.8% of total investment in Australia.

According to the Australian Bureau of Statistics (ABS), ICT makes a greater contribution to the economy than agriculture, forestry and fishing, defence and education.

There are approximately 514,000 people employed by Australia's ICT industries today. ICT specialist business accounted for 89.1 per cent of this employment. The business groupings employing the most people were computer services (41.1 per cent), telecommunications services (27.1 per cent), and wholesale trade (24.6 per cent).

The vast majority (over 95 per cent) of ICT businesses are small, employing fewer than 20 people. Around 68 per cent of ICT workers are male, with men dominating technical and professional roles (79 per cent).

Further growth is expected in the industry over the next five years. It is universally acknowledged by the ICT community that Australia does not have sufficiently skilled ICT practitioners to satisfy its needs today.

In the five years to 2014-15, employment in Information Media and Telecommunications is expected to grow by an average of 1.8 per cent per annum, the same as the all-industries average. This projected industry growth represents 19 600 new jobs. (DEEWR)

The Department of Education, Employment and Workplace Relations (DEEWR) identified a number of ICT specialisations in shortage in Victoria, as at May 2007. State-wide shortages in supply were identified in a range of ICT specialisations from database skills and applications development to internet/networking LAN/WAN, ERM/CRM applications, process systems and management and security. The Australian Computer Society predicts that there will be continued ICT skills shortages at current or worse levels until at least 2012.

In September 2009, DEEWR reported that graduate and lower level positions in Victoria, Queensland and the Australian Capital Territory were filled relatively easily compared with vacancies for highly skilled and

experienced ICT professionals. Programs such as the Australian Computer Society's (ACS) Professional Year (an initiative supported by the Department of Immigration and Citizenship) aim to bridge the gap between graduate skills and employer needs. The ACS's Professional Year is aimed at former international overseas students who have graduated from ICT university courses within Australia and who are seeking permanent residency.

Job Titles

- Analyst Programmer
- Cable Installer
- Help Desk Support Officer
- ICT Administrator
- ICT Manager
- IT Support Officer
- Multimedia Developer
- Network Analyst
- Network Administrator
- Network Technician
- Programmer
- Systems Analyst
- Systems Designer
- Telecommunications Technician
- Web Designer
- Web Developer

ICT at Swinburne TAFE

Swinburne TAFE offers an extensive range of courses in the information and communication technologies field. Students can complete courses in the areas of network engineering, computer systems, software development, website development and computer science. Graduates from these Swinburne TAFE courses may gain employment within the information technology and telecommunications industries, in both the public and private sectors. These courses also provide a strong foundation for students who are interested in progressing to further study.

Networking/Systems Administration

Students who study in the field of networking/systems administration can obtain employment in the fields of network engineering and network management. These courses provide training in a range of relevant skill areas including the selection, installation and management of computer networks, and providing general client support.

As a networking professional, you may research, analyse and recommend strategies for network architecture and development, implement, maintain and configure network hardware and software and troubleshoot and provide user support. Job prospects for networking professionals are good, with weekly earnings above average. The main employing sectors of computer network professionals are professional, scientific and technical services, information media and telecommunications, education and training and public administration and safety.

Software/ Website Development

Students completing courses in Software /Website Development will acquire skills in areas like program design, code development, systems analysis and design, project management and client interaction. Major studies include programming, the analysis and design of computer systems, the implementation and maintenance of systems, project management and the provision of technical advice and support. Students will gain the skills and knowledge needed to be effective in a range of information technology support roles within organisations, including determining client business expectations and needs, developing and presenting a feasibility report, automating processes and creating technical documentation.

The course prepares students to work in all areas of website development, including the integration of internal business systems with a browser interface, designing the processes and architecture of a business Internet presence, aligning the client's web presence with its business strategy and specifying e-business application system requirements. Potential careers include information technology support technician, programmer and

systems designer, and all occupations within the computer system design (and related services) sector, one of the fastest growing in Australia.

Website Design

Upon completion of qualifications in website development students can work in ICT related areas, particularly web design and web development. Web designers plan, produce and maintain web pages using relevant software packages. Web developers plan, produce and maintain web sites and web applications using web programming, authoring, scripting, content management and file transfer software.

Essential skills required to successfully work as a web designer and web developer are active listening, programming, critical thinking and problem solving skills, especially important in order to work closely with clients and produce an outcome in line with clients' expectations. Job prospects for web designers and web developers are good, with employment growth expected to be strong to 2014-15.

Web designers and developers can work for private consultancy studios specialising in these services or for larger organisations in the public and private sectors as in-house ICT specialists.

Further Education and Pathways

For a full list of credit pathways and requirements see the Swinburne website:
www.future.swinburne.edu.au/pathways

For entry and admission requirements: www.swinburne.edu.au/courses

References and Relevant Websites

- www.acs.org.au
- www.skillsinfo.gov.au
- www.investinaustralia.com/industry/ict/ict
- www.aiaa.com.au/pages/ictlabourmarket.aspx
- www.myfuture.edu.au
- www.joboutlook.gov.au/careers

What help does Swinburne Careers and Employment offer?

Career Services

- Career Counselling for Students
- Careers in the Curriculum (CIC) – Higher Education Students
- Plan Skills Development
- Career Seminars/Workshops for Students
- Resume and Cover Letter Checks
- Interview Practice
- Student Recruitment Service (Final Year Students)

Career Resources

- Career Resource Library
- Job Search Handouts
- Interactive Career Planning
- What Can I Do With My Degree/ TAFE Qualification? (see website for resource)

SwinEmploy Employment Service

- All job advertisements for graduate placements, casual, vacation, part-time and full-time employment
- Links to employer websites
- Enables students to book online for events such as workshops, employer information sessions and interviews
- Access to Going Global (over 10,000 job vacancies listed across Europe, Asia-Pacific, UK and US. Global key employer directories, work permits & visa regulations, country-specific cultural & interviewing advice & more)

Download Careers and Employment job search handouts from SwinEmploy, including:

- Addressing Selection Criteria
- Assessment Centres
- Cover Letters or Letters of Application
- Curriculum Vitae or Resume
- Employer Expectations of Graduates
- Interviews - How to Plan, Prepare and Perform
- Informational Interviewing
- Job Hunting
- Networking: What Is It and How do You Do It?
- Online Applications
- Psychometric Tests
- Skills and Attributes
- Thinking About Changing Your Course?
- Tips for facing the work environment and your first professional job

Careers & Employment

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