

Information Systems Analysts & Consultants

Job Roles and Responsibilities in Canada

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Introduction

This package focuses on the job roles and responsibilities of information systems analysts / consultants. Because the information technology sector is constantly changing, it is important to keep up to date with current job roles and technology. This package was created in March 2007.

The most common areas of work in Information Technology are: Software (72.3%), web Internet/Intranet (57.7%) and database (51.3%). The next group involves the areas of hardware, network, security systems, E-commerce and interactive media. Most IT occupations engage in multi-tasking across various areas of work.¹

Language Requirements

Computer / network technicians and web support technicians, information systems analysts / consultants and web designers/developers should be able to communicate clearly in English in order to do their job well. It is very important to employers that you have good oral communication skills so you can communicate with them and with your co-workers.

It is important to note that language entrance requirements and test requirements vary in different colleges. Contact the colleges to see what is required.

Recommended Canadian Language Benchmark Levels²

Speaking	Listening	Reading	Writing
6	6	7	6

Recommended TOEFL scores

Paper-based: 550, Computer-based: 213, Internet-based: 80³

*If you have not yet taken a Canadian Language Benchmark Test to determine your level of English, it is recommended that you call the **Adult Language Training Branch: Language Assessment Centre for an appointment, Tel. (204) 945-6300.***

¹ http://www.ictc-ctic.ca/uploadedFiles/it_occupations_survey_e.pdf, retrieved on March 29'07.

² Note: This occupation has not been formally benchmarked.

³ These are the current TOEFL entrance requirements at some colleges.

Description

Information systems analysts and consultants conduct research, develop and implement information systems development plans, policies and procedures, and provide advice on a wide range of information systems issues. They are employed in information technology consulting firms and in information technology units throughout the private and public sectors or they may be self-employed. Information systems analysts and consultants are classified under the National Occupation Classification # 2171.

Example Titles

- computer consultant
- computer systems analyst
- informatics consultant
- informatics security analyst
- information systems business analyst
- information systems quality assurance analyst
- IT (information technology) consultant
- management information systems (MIS) analyst
- systems auditor
- systems consultant
- systems security analyst

Where Information Systems Analysts & Consultants Find Work

In Manitoba, employment is concentrated in Winnipeg where approximately 83% of the jobs are located. Information systems analysts and consultants are employed in the following industries:

Professional scientific and technical service – 34%

Public administration 14%

Finance and insurance 12%

Information and cultural industries – 11%

Wholesale trade 6%

Manufacturing – 4%

Utilities – 3%

Skills

Systems analysts and consultants need the following characteristics:

- an interest in business systems and finding creative solutions to business problems
- ability to think logically and creatively to analyze problems
- ability to take a step-by-step approach and pay close attention to detail while performing routine tasks
- ability to handle the stress of deadlines and working on several projects at the same time
- ability to express technical concepts clearly to people with no technical background
- good personal interaction skills
- ability to work alone or as a member of a team
- some systems analysts may need project management skills which include planning, supervising or coordinating the work of others, budgeting and the ability to communicate with clients
- an interest in keeping up to date with new developments in the field

Duties

The following is a summary of the main duties for some occupations in this unit group:

- Information systems business analysts and consultants meet with clients to identify and document requirements, conduct business and technical studies, design, develop and implement information systems business solutions and provide advice on information systems strategy, policy, management and service delivery.

- Systems security analysts assess physical and technical security risks to data, software and hardware and develop policies, procedures and contingency plans to minimize the effects of security breaches.
- Information systems quality assurance analysts develop and implement policies and procedures to maximize the efficiency, effectiveness and overall quality of software products and information systems.
- Systems auditors conduct independent third-party reviews to assess quality assurance practices, software products and information systems.

Terms & Conditions

Information systems analysts and consultants work in an office setting during regular business hours (Monday – Friday, 9:00am – 5:00pm), but they may work in the evenings and on the weekends to do new installations or to solve unexpected problems. They spend long periods of time in front of a computer monitor, which can lead to eyestrain, or wrist problems. Some of these professionals move from site to site to service client needs, while some others are assigned to one specific client for the duration of a contract. Shift work, overtime and travel may be required in this occupation. Approximately 10% of this occupation are self-employed.

Earnings

In Manitoba

\$32,000 per annum - starting

\$59,000 per annum - average

\$98,000 per annum – high

Education / Training

- There are a wide variety of degree, diploma and certificate programs related to computer programming and systems analysis offered by universities, colleges, technical institutes and private vocational institutions in Manitoba.
- Some high schools in Manitoba offer a program in information technology.

Employment Requirements

- A bachelor's degree in computer science, computer systems engineering, software engineering, business administration or a related discipline or completion of a college program in systems analysis is required.
- Experience as a computer programmer is usually required.

Career Paths

Many information systems analysts start off as computer programmers and with experience take on more responsibility. They may move into security analysis, systems testing or information systems management.

Experience in a particular type of business may result in movement to operational jobs. Further advancement opportunities to management positions depend on the size and nature of the organization.

Those who have business experience or training may move into information systems consulting positions or establish their own consulting firms.

Employment Opportunities

Employment prospects for experienced information systems analysts and consultants are expected to be good in the period 2006-2010. Employment in Manitoba in 2006 is estimated at 1,985.

Currently there are fewer opportunities for recent graduates, but the longer-term outlook is more promising as the importance of information technology in the workplace continues to grow.

Manitoba has a very small software development sector so most jobs are found in the information technology branches of large organizations or in consulting companies. The popularity of information technology related courses in universities and colleges ensures a good supply of new recruits to the profession and creates a competitive market for job seekers.

Professional Associations and Unions

- **Information and Communications Technology Association of Manitoba**, 435 Ellice Avenue, Winnipeg, MB, R3B 1Y6, (204) 943-7133, <http://ictam.ncsl.ca/>
- **Association of Information Systems Professionals**, 101-605 Des Meurons, Winnipeg, MB, R2H 2R1, (204) 237-6378
- **Canadian Information Processing Society**, P.O. Box 2610, Winnipeg, MB, R3C 4B3, Telephone: (204) 947-2067, Fax: (204) 222- 9262

References

Information and Technology Council, Retrieved on March 29, 2007 from:
http://www.ictc-ctic.ca/uploadedFiles/it_occupations_survey_e.pdf

Manitoba Job Futures, Retrieved on February 15, 2007 from:
<http://mb.jobfutures.org/search.cfm?lang=en&site=graphic>