

Career Update

Information Technology (IT) has become an integral part of modern life. Among its most important functions are the efficient transmission of information and the storage and analysis of information. The workers described below all help individuals and organizations share and store information through computer networks and systems, the Internet, and computer databases.

Although there are no universal educational requirements [...], workers in this occupation commonly hold a bachelor's degree. Some hold a degree in computer science, mathematics, or information systems. Others have taken special courses in computer programming to supplement their study in fields such as the physical sciences. Because employers' needs are varied, a 2-year degree or certificate may be sufficient for some positions, as long as applicants possess the right technical skills. Some employers seek applicants with technical or professional certification. Certification can be obtained independently, although many organizations now assist employees in becoming certified.

Workers in these occupations must have strong problem-solving, analytical, and communication skills. Because they often deal with a number of tasks simultaneously, the ability to concentrate and pay close attention to detail also is important. Although these workers sometimes work independently, they frequently work in teams on large projects. As a result, they must be able to communicate effectively with other computer workers, such as programmers and managers, as well as with users or other staff who may have no computer background.

Occupation	Employment (2008)	Growth (2008-18)
Computer Network, Systems, and Database Administrators	961,200	30%
Computer Software Engineers and Computer Programmers	1,300,000	21%
Computer Systems Analysts	532,200	20%

Source: Occupational Outlook Handbook, 2010-11 Edition, U.S. Department of Labor, Bureau of Labor Statistics, www.bls.gov/oco/oco1002.htm#comp

Certificate of Completion in Database Development

Course	Credits	Offered
CIS105 Survey of Computer Information Systems	3	Fall, Spring, Summer
CIS117DM Microsoft Access: Database Management	3	Fall, Spring
CIS217AM Advanced Microsoft Access: Database Management	3	Spring
CIS119DO Introduction to Oracle: SQL	3	Spring
CIS150 Programming Fundamentals	3	Fall, Spring
CIS159 Visual Basic Programming I OR CIS162AD C# Level I	3	Fall, Spring Fall, Spring
CIS276DA MySQL Database OR CIS276DB SQLServer Database OR CIS164AB Oracle: PL/SQL Programming	3	Fall Spring (contact department)
CIS166AE Web Scripting with PHP: Hypertext Preprocessor OR CIS166AC Web Scripting with Active Server Pages ASP.NET	3	Fall Spring
CIS225AB Object-Oriented Analysis and Design	3	Spring
REQUIRED COURSES	27	

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