

# INFORMATION SYSTEMS

## **What is Information Systems?** (from <http://www.albright.edu/catalog/infocon.html>)

There continues to be an increasing demand for college graduates who possess an information systems (IS) degree. Projections are for the needs to be further unmet over the next five years, as the gap widens for supplying skilled individuals to IS jobs. We are faced with a major shortage, not only with regard to providing players with these needed skills, but also with regard to providing new leadership in burgeoning areas, as IS has moved into the mainstream of our economic culture. Globalization of business markets adds the need for communication and project teamwork to become part of a graduate's repertoire. Exhibiting the knowledge and skills that such an IS degree requires, graduates can expect to be in strong positions to compete for managerial and analytical positions in many fields, including software design, database management, network consulting and e-commerce business, to name a few.

## **What is this career like?** (from <http://www.bls.gov/oco/ocos287.htm>)

“All organizations rely on computer and information technology to conduct business and operate efficiently. Computer systems analysts help organizations use technology effectively and incorporate rapidly changing technologies into their existing systems. The work of computer systems analysts evolves rapidly, reflecting new areas of specialization and changes in technology.

Computer systems analysts solve computer problems and use computer technology to meet the needs of an organization. They may design and develop new computer systems by choosing and configuring hardware and software. They may also devise ways to apply existing systems' resources to additional tasks. Most systems analysts work with specific types of computer systems—for example, business, accounting, or financial systems or scientific and engineering systems—that vary with the kind of organization. Analysts who specialize in helping an organization select the proper system software and infrastructure are often called system architects. Analysts who specialize in developing and fine-tuning systems often are known as systems designers.

In some organizations, programmer-analysts design and update the software that runs a computer. They also create custom applications tailored to their organization's tasks. Because they are responsible for both programming and systems analysis, these workers must be proficient in both areas. As this dual proficiency becomes more common, analysts are increasingly working with databases, object-oriented programming languages, client-server applications, and multimedia and Internet technology.”

**Related Career Titles** (from <http://www.uncwil.edu/stuaff/career/Majors/businesssystems.htm>)

Analyst/Programmer	Information Systems Developer	Network Administrator/Manager
Applications Programmer	Information Systems Manager	On-Line Services Manager
Communications Specialist	Information Technology Mgr.	Operating Systems Programmer
Computer Aided Software Engineering Specialist	Internet Developer	Operations Manager
Computer Security Analyst	Internet Marketing Analyst	Operations Researcher
Computer Systems Hardware Analyst	Inventory Control Specialist	PC Support Specialist
Consultant	Materials Manager	Records Management Analyst
Data Communications Analyst	Medical Systems Designer	Relocation Analyst
Data Security Analyst	Microcomputer/Workstation Mgr.	Software Tester
Database Manager/Admin.	Software Support Technician	Systems Analyst
End-User Computing Mgr.	Systems Administrator	Systems Technical Manager
End-User Technician	Systems Programmer	Telecommunications Manager
Information Systems Application Developer	Technology Consultant	

**How can you get ready?** (from <http://career.utk.edu/students/majors.asp>)

- Be aware that careers in computers and technology are constantly changing.
- Be prepared to retrain and learn new information on a regular basis.
- Certifications are often an important part of training for technical careers. Obtain the certifications that are the most applicable to career goals and interests.
- Gain as much diverse technical experience as possible. Seek positions in computer labs, retail computer/technology stores, or as technological support for any office or business.
- Learn about technology in additional areas such as audio/visual or telecommunications. Become familiar with the integration and application of these areas to management information systems.
- Develop physical stamina and strength. Many networking professionals are involved in hands-on, physical activity during network installation and maintenance.

**Related Major Skills** (from <http://www.uncwil.edu/stuaff/career/Majors/businesssystems.htm>)

Reading comprehension	Active listening skills
Math & science skills	Critical thinking
Different learning strategies	Giving advice on business or research
Research	Ability to prepare technical reports
Design systems	Work independently and on a team
Oral & written communication skills	Active learner
Understanding of computer programs	Investigating data to solve problems

## **What about the future?** (from <http://www.bls.gov/oco/ocos287.htm>)

“Employment of computer systems analysts is expected to grow by 29 percent from 2006 to 2016, which is much faster than the average for all occupations. Demand for these workers will increase as organizations continue to adopt and integrate increasingly sophisticated technologies. Also, the increasing importance being placed on “cybersecurity”—the protection of electronic information—will result in a need for workers skilled in information security.”

## **Available at Albright College Career Development Center’s Resource Library**

- [Great Jobs for Computer Science Majors](#), by Jan Goldberg
- [Career Opportunities in Computers and Cyberspace](#), by Harry Henderson
- [Careers for Computer Buffs and Other Technological Types](#), by Marjorie Eberts and Margaret Gisler
- [Careers for Cybersurfers and Other Online Types](#), by Marjorie Eberts and Rachel Kelsey
- [Careers for Introverts and Other Solitary Types](#), by Blythe Camenson
- [Careers for Geniuses and Other Gifted Types](#), Jan Goldberg
- [Careers for Puzzle Solvers and Other Methodical Thinkers](#), by Jan Goldberg
- [Careers for Scientific Types and Others with Inquiring Minds](#), by Jan Goldberg
- [Opportunities in Adult Education Careers](#), by Blythe Camenson
- [Opportunities in Computer Careers](#), by Julie Kling Burns
- [Opportunities in High Tech Careers](#), by Deborah Yanuck and Gary Golter
- [Opportunities in Library and Information Science Careers](#), by Kathleen de la Pena McCook
- [Opportunities in Research and Development Careers](#), by Jan Goldberg
- [Opportunities in Teaching Careers](#), by Janet Fine
- [Opportunities in Technical Education Careers](#), by Robert Connelly
- [Opportunities in Technical Writing and Communication Careers](#), by Jay R. Gould and Wayne A. Losano
- [Opportunities in Telecommunications Careers](#), by Jan Bone
- [Opportunities in Training and Development Careers](#), by Edward E. Gordon, Catherine M. Petrini, and Ann P. Campagna

## **Disclaimer**

Links to Internet sites are provided for your convenience and do not constitute an endorsement by Albright College or the Career Development Center.

Links found at <http://www.uncwil.edu/stuaff/career/Majors/computer.htm> and <http://www.uncwil.edu/stuaff/career/Majors/businesssystems.htm>.

## **Job and Internship Search Links**

- Tech-Centric <http://www.tech-centric.net>
- Just Tech Jobs - searchable by skill <http://www.justtechjobs.com>
- Jobs for programmers - 6000 employers <http://www.prgjobs.com>
- Career Marketplace - Technical Jobs and Job Sites <http://www.careermarketplace.com>
- Developers.Net - Great jobs and career information for developers. More than 30,000 jobs in a searchable database on this site! <http://www.developers.net>

- High Tech Jobs Online <http://www.dice.com>
- Java Jobs <http://javajobs.com>
- Computerwork.com <http://www.computerwork.com>
- Society for Technical Communication <http://www.stc.org/index.asp>
- Computer Jobs <http://www.computerjobs.com>
- Code-Jobs.com <http://www.code-jobs.com>
- PlanetRecruit.com <http://www.planetrecurit.com/channel/int>

### **Career Planning Links**

- Vocational Information Center <http://www.khake.com/page17.html>
- Occupational Outlook Handbook (system analysts, computer scientists, database administrators) <http://stats.bls.gov/oco/ocos042.htm>
- Occupational Outlook Handbook (computer programmers) <http://www.bls.gov/oco/ocos110.htm>
- Occupational Outlook Handbook - Operations Research Analysts <http://stats.bls.gov/oco/ocos044.htm>
- CIS-L: Careers in Information Systems Listserv <http://www.ubalt.edu/www/cis-l/home.html>
- Career Guide: Decoding the Information Security Profession <https://www.isc2.org/download/careerguide05.pdf>

### **Professional Associations Links**

- Association for Information Systems <http://www.aisnet.org/>
- Institute of Operations Management <http://www.iomnet.org.uk>
- Association for Computing Machinery <http://www.acm.org>
- Institute for Certification of Computing Professionals <http://www.iccp.org>
- Internet Society <http://www.isoc.org>
- Association for Women in Computing <http://www.awc-hq.org>
- Independent Computer Consultants Association <http://www.icca.org>
- IEEE Computer Society <http://www.computer.org/pubs/computer/career/career.htm>
- Computing Research Association <http://cra.org>