Information Technology Industry Sector

Information Technology (IT) careers involve the design, development, support, and management of hardware, software, multimedia, and systems integration services. The IT industry offers a dynamic and entrepreneurial working environment that has had a revolutionary impact on the economy and on society. IT careers are available not only in the IT industry but also in every other sector of the economy, from Agriculture and Natural Resources to Transportation. Employment for IT support specialists is expected to increase faster than the average for all other occupations (by 18.5 percent by 2012) as organizations continue to adopt and integrate increasingly sophisticated technology. The IT sector contains some of the fastest-growing industries, such as software publishing, Internet publishing, service providers, Web search portals, and data-processing services.

Information Technology careers are divided into four pathways: Information Support and Services, the foundation of all successful business organizations today; Media Support and Services, involving the creation, design, and production of multimedia products and services; Network Communications, involving network analysis, planning, and implementation; and Programming and Systems Development, involving the design, development, and implementation of computer systems and software.

Information Technology Industry Sector Pathways:

- *Information Support and Services*
- *Media Support and Services*
- *Network Communications*
- *Programming and Systems Development*

Entry Level Careers

(with high school diploma)

Help Desk Specialist
Computer Repairer
LAN Maintenance Technician
Production Technician
Web Page Developer
Computer Operator
Word Processing Operator

Technical Level Careers

(with AA or AS degree or certificate)

Computer Support Specialist
LAN Support Technician
Software/Hardware Installer
Telecommunications Specialist
Network Administrator
Data Communications Specialist
Computer Graphic Artist
Desktop Publisher
Multimedia Specialist
Web Designer
Webmaster
Database Administrator
Technical Writer

Professional Level Careers

(with BS or BA degree)

Computer Programmers
Computer Security Specialist
Database Administrators
Software Engineers
Information Systems Architect
Telephony System Administrator
Tower Project Coordinator
Systems Engineer
Network Analyst
Graphic Designer
Multimedia Artist/Animator
Web Architect
Corporate Communications Manager

Information Support and Services Pathway

Sample CTE Courses*

Education Level and Related Occupations**

Introductory	Concentration	Capstone		High School Diploma	Certification and/or AA Degree	Bachelor's Degree or Higher
▪ Business Communication ▪ Computer Applications ▪ Keyboarding	▪ Office Technology	▪ Microsoft Office Specialist Certification		▪ Administrative Assistant ▪ Help Desk Support Technician ▪ Word Processing Operator	▪ Desktop Publisher ▪ Information Systems Specialist ▪ Database Administrator ▪ Technical Writer	▪ Software Engineer ▪ Information Systems Architect ▪ IT Manager/Director ▪ Business Teacher

Media Support and Services Pathway

Sample CTE Courses*

Education Level and Related Occupations**

Introductory	Concentration	Capstone		High School Diploma	Certification and/or AA Degree	Bachelor's Degree or Higher
▪ Computer Application ▪ Introduction to Business ▪ Introduction to Desktop Publishing	▪ Desktop Publishing ▪ Web Design	▪ Multimedia and Image Management ▪ Advanced Web Design		▪ Computer Operator ▪ Production Technician ▪ Web Page Developer	▪ Computer Graphic Artist ▪ Desktop Publisher ▪ Multimedia Specialist ▪ Web Designer ▪ Webmaster	▪ Graphic Designer ▪ Multimedia Artist ▪ Multimedia Producer ▪ Web Architect ▪ Corporate Communications Manager

Network Communications Pathway

Sample CTE Courses*

Education Level and Related Occupations**

Introductory	Concentration	Capstone		High School Diploma	Certification and/or AA Degree	Bachelor's Degree or Higher
▪ Keyboarding ▪ Computer Applications	▪ Advanced Computer Operations ▪ Network Systems I	▪ Network Systems II		▪ Network Systems Assistant ▪ Network Systems Technician	▪ Software/Hardware Installer ▪ Telecommunications Specialist ▪ Network Administrator ▪ Data Communications Specialist	▪ Network Administrator ▪ Network Engineer ▪ Network Manager/Director ▪ Project Manager ▪ Computer Security Specialist

Programming and Systems Development Pathway

Sample CTE Courses*

Education Level and Related Occupations**

Introductory	Concentration	Capstone		High School Diploma	Certification and/or AA Degree	Bachelor's Degree or Higher
▪ Computer Applications ▪ Exploratory Business ▪ Introduction to Programming	▪ Computer Programming ▪ Programming and Software Development ▪ Java Programming ▪ Visual Basic Programming	▪ Advanced Programming ▪ AP Computer Science ▪ Game Programming		▪ Programmer ▪ Software Applications Support ▪ Software Technician	▪ Programmer ▪ Software Applications Reporting ▪ Software Documentation Specialist	▪ Chief Software Architect ▪ Computer Software/ Hardware Engineer ▪ Manager of Software Development ▪ Operating Systems Designer ▪ Software Architect

10 TIPS FOR CHOOSING THE RIGHT CAREER FOR YOU

How does a person know what career to work toward? There is no perfect answer, but the following 10 tips will get you off to a good start.

1 **Get to know yourself** – Complete more than one self-assessment test.

2 **Identify your strengths and weaknesses** – What do you do well and what do you not do well?

3 **Develop an inventory of careers** – Write down some careers that might interest you.

4 **Research different careers** – Talk to others and use the Internet.

5 **Write the pros and cons** – List positives and negatives about the careers that interest you.

6 **Network** – Discuss your ideas with others.

7 **Talk with people who work in your area of interest** – Family and friends are great resources.

8 **Find a mentor** – Find someone with whom you can discuss your career selection.

9 **Experiment** – Take a related class or part-time job.

10 **Don't give up** – "If there is a will, there is a way."

CAREER OPPORTUNITIES IN

INFORMATION TECHNOLOGY SECTOR

STATE CENTER CONSORTIUM

A Partnership for Success

390 W. Fir Ave, Suite 300, Bldg B
Clovis, CA 93611
Phone: (559) 324-6410 Fax: (559) 324-6489
www.statecenter.com

Plan For Success
Visit statecenter.com/industrysectors

Career
Pathways

Information Support and Services Pathway

Mastery of information technologies is an essential part of nearly all successful business organizations today. People who have experience in information support services are constantly in high demand for a variety of positions. Students in this pathway prepare for careers that involve the implementation of computer services and software, provision of technical assistance, creation of technical documentation, and management of information systems.

CAREERS/CAREER AREAS:
- *Word Processing Operator*
- *Technical Writer*
- *Software Engineer*
- *Chief Technology Officer*
- *Administrative Assistant*
- *Database Administrator*
- *Business Teacher*
- *Information System Architect*

Are you comfortable around computers and people? If you like working with computers and other technology, this career sector could be for you. The Information Technology (IT) industry offers a dynamic and entrepreneurial working environment that has had a revolutionary impact on the economy and on society. No other career sector offers as much diversity as information technology. You can take the skills learned in these pathways and apply them to any sector of our economy. The IT sector contains some of the fastest-growing industries, such as software publishing, Internet publicizing, service providers, Web search portals, and data-processing services.

Media Support and Services Pathway

Organizations of all types and sizes use digital media to communicate with existing and potential customers.

Students in the Media Support and Services Pathway prepare for careers that involve creating, designing, and producing multimedia products and services. These services may include e-business Web sites or computer enhanced visual media.

CAREERS/CAREER AREAS:
- *Web site Developer*
- *Computer Operator*
- *Computer Graphic Artist*
- *Web Architect*
- *Webmaster*
- *Multimedia Producer*
- *Corporate Communication Manager*
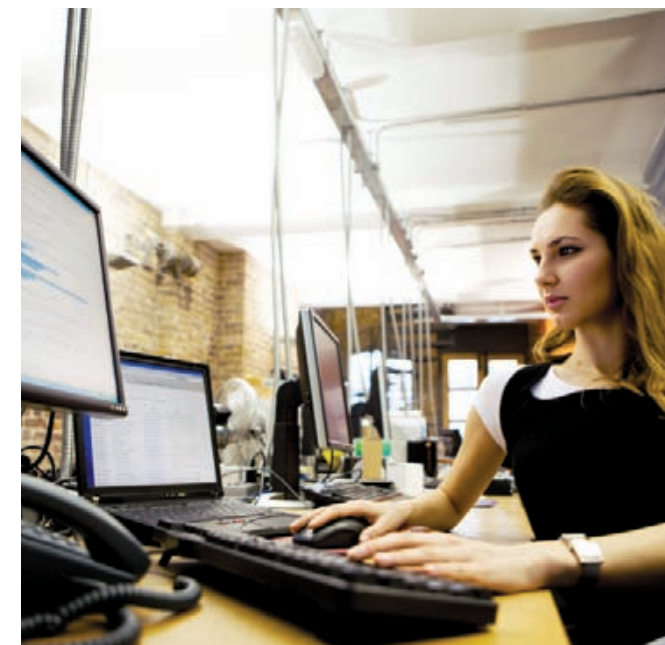- *Graphic Designer*

Network Communications Pathway

The successful establishment and maintenance of an information technology infrastructure is critical to the success of 21st Century businesses and organizations. In the Network Communications Pathway, students learn skills and techniques for network analysis, planning, design, implementation, maintenance, and management of network systems. As network administrators, they are often responsible for making recommendations regarding hardware and software issues. Network communication skills will qualify students for careers in most areas of business.

CAREERS/CAREER AREAS:
- *Software/Hardware Installer*
- *Network System Analyst*
- *Computer Security Specialist*
- *Network System Assistant*
- *Telecommunications Specialist*
- *Network Administrator*
- *Network Engineer*
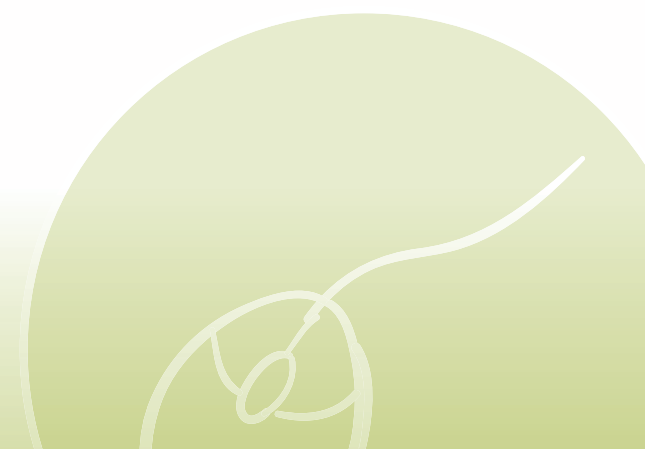- *Data Communications Specialist*

Programming and Systems Development Pathway

Students in the Programming and Systems Development Pathway prepare for careers that involve the design, development, and implementation of computer systems and software. Students learn different operating systems, programming language, and software development. Having expertise in these areas opens doors to careers working with cutting-edge technology and developing products for businesses and consumers.

CAREERS/CAREER AREAS:
- *Programmer/Software Technician*
- *Operating System Designer*
- *Software Architect*
- *Software Applications Support*
- *Computer Software/Hardware Engineer*

Web sites for further information:

www.californiacareers.info

www.whodouwant2be.com

www.californiacolleges.edu

www.edd.ca.gov/Jobs_and_Training/

INFORMATION TECHNOLOGY

Are you comfortable around computers? If you like working with computers and other technology, this career sector could be for you. Information technology careers involve the design, development, support, and management of hardware, software, multimedia, and systems integration services. No other career sector offers as much diversity as information technology. You can take the skills learned in these pathways and apply them to any sector of our economy. With organizations continually integrating sophisticated technology into their companies, the employment opportunities for technology support specialists is expected to grow faster than the average for all other occupations.

The information below is just a small sample of the many great employment related resources available on the State of California website www.edd.ca.gov. We encourage you to visit the website and explore the available information.

Occupation Title	Employment Levels in 2006	Projected Employment level 2016	Projected Job Growth	Percent of Job Growth	2008 Hourly [1]Mean Wage	2008 [2]Weekly Mean Wage	2008 [3]Monthly Mean Wage	2008 Annual Mean Wage
Business Teachers, Post Secondary	4,300	5,500	1,200	27.9%	N/A	N/A	N/A	N/A
Computer Hardware Engineers	21,400	23,700	2,300	10.7%	$52.32	$2,092.80	$8,789.76	$105,477.12
Computer Operators	12,600	9,600	-3,000	-23.8%	$19.37	$774.80	$3,254.16	$39,049.92
Computer Programmers	36,900	35,700	-1,200	-3.3%	$39.10	$1,564.00	$6,568.80	$78,825.60
Computer Science Teachers, Post Secondary	2,800	3,600	800	28.6%	N/A	N/A	N/A	N/A
Computer Software Engineers	52,100	66,800	14,700	28.2%	$49.41	$1,976.40	$8,300.88	$99,610.56
Computer Specialists, Other	32,600	39,400	6,800	20.9%	$37.69	$1,507.60	$6,331.92	$75,983.04
Computer Support Specialists	61,100.00	71,600	10,500	17.2%	$24.84	$993.60	$4,173.12	$50,077.44
Computer Systems Analysts	53,900	69,100	15,200	28.2%	$39.02	$1,560.80	$6,555.36	$78,664.32
Data Entry Keyers	37,100	36,500	-600	-1.6%	$13.89	$555.60	$2,333.52	$28,002.24
Database Administrators	11,400	14,900	3,500	30.7%	$37.07	$1,482.80	$6,227.76	$74,733.12
Desktop Publishers	2,900	2,900	0	0.0%	$19.87	$794.80	$3,338.16	$40,057.92
Executive Secretaries	223,800	262,200	38,400	17.2%	$21.95	$878.00	$3,687.60	$44,251.20
Graphic Designers	36,700	41,800	5,100	13.9%	$25.99	$1,039.60	$4,366.32	$52,395.84
Multi Media Artists & Animators	27,900	36,800	8,900	31.9%	$38.98	$1,559.20	$6,548.64	$78,583.68
Network & Computer Systems Administrators	32,400	42,200	9,800	30.2%	$37.67	$1,506.80	$6,328.56	$75,942.72
Network Systems & Data Communications Analysts	28,900	45,900	17,000	58.8%	$37.23	$1,489.20	$6,254.64	$75,055.68
Office Support Supervisors	187,500	200,400	12,900	6.9%	$25.23	$1,009.20	$4,238.64	$50,863.68
Operations Research Analysts	6,200	6,600	400	6.5%	$36.44	$1,457.60	$6,121.92	$73,463.04
Technical Writers	7,200	8,600	1,400	19.4%	$37.20	$1,488.00	$6,249.60	$74,995.20
Word Processing Operators	26,500	24,300	-2,200	-8.3%	$17.66	$706.40	$2,966.88	$35,602.56

These selected occupations with information on job growth, percent growth and earning potentials are based on information found at www.labormarketinfo.edd.ca.gov

[1] **Mean**: Midpoint between highest & lowest   [2] **Weekly**: Based on 40 hours   [3] **Monthly**: Based on 168 hours

TIPS
FOR JOB SEEKERS

How can you improve your chances of getting a job? Applying for a job is the easy part, but getting it can be more of a challenge. Following these five tips can help you reach your goal:

1 The Job
- Determine your interests: talk to others and consider your hobbies and talents
- Search "career assessments" on the Internet

2 The Resume
- Should be easy to read: not too long, too wordy or too cluttered
- Make it powerful
- Show you can cooperate, you can learn, and you can do

3 The Application
- Make it neat, complete and accurate
- Include recommendations from teachers, employers, coaches, friends, etc.

4 The Interview
- Show enthusiasm: it separates the winners from the losers
- Dress appropriately/similar to those on the job

5 The Follow-up
- Send a thank you note
- Call to see if a decision has been made
- If not, ask, "Am I still a candidate?"
- If you are, ask, "Is it okay if I call back in a couple of days?"

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