Center of Excellence
for information & computing technology

Washington State Community and Technical Colleges

Information Technology Programs

2009–2010

What is Information and Computer Technology (ICT)?

Information and computer technologies play an integral role in the 21st century world – from cell phones and PDAs, video games, ATM machines, GPS navigation, computers to cars and MP3 players. As an ICT professional you will be developing and working with technologies that haven't even been invented yet. Because ICT is ubiquitous that means you will be employable in every industry – agriculture, aerospace, energy, health, manufacturing, telecommunications, or transportation. With no constraints you can take your passion and merge it with a career in ICT. You'll be able to choose the type of company you want to work in either the for-profit world of large corporations and small businesses or the non-profit sectors of state and national government, city councils, or education.

Employment in the information and computing technology sector is expected to increase by 6.9 percent, adding 212,000 jobs by 2016. ICT boasts some of the fastest-growing computer-related industries like gaming, software and internet publishing, and wireless telecommunication carriers. Employment in these industries is expected to grow by an average of 39 percent. ICT industries include film production; gaming; broadcasting; and, newspaper, periodical, book publishing. Increased demand for telecommunications services, cable service, high-speed Internet connections, and software will fuel job growth among these industries. (Source: U.S. Department of Labor).

Why Should I Consider a Career in ICT?

A career in ICT offers exciting and diverse job opportunities. ICT professionals are in demand across all sectors of the economy and not just in the U.S., but globally. A career as an ICT professional opens the door to a great salary, varied employment responsibilities, and the opportunity for global travel.

One of the best ways to start your career is to enroll in a degree or certificate program in an ICT field at a Washington State Community or Technical College. Careers range from the purely technical to those that have a strong business development focus.

What are some job titles for which you will find education resources in this guide?

- Casino Slot Technician
- Computer Application Specialist
- Computer Programmer
- Computer Software Specialist
- Computer Support Specialist
- Consultant
- Database Administrator
- Database Development
- Database Support
- Desktop Services Analyst
- Digital Imaging Support Specialist
- Equipment Vendor Representative
- Game Developer
- Graphic Design and Publication Layout
- Help Desk Technician
- IT Help Desk Support Technician
- IT Information Assurance Technician
- IT Network Technician
- IT PC Repair Technician
- LAN / WAN Administrator
- Managers of Business Computer Systems
- Network Administrator
- Network Designer
- Network Specialist
- Network Technologist
- PC Network Technician
- PC Support Specialist
- Professional Equipment Sales Representative
- Project Manager Assistant
- Response Line Representative
- Security Administrator
- Software Developer
- Software Engineer
- System Analyst
- System Programmer
- Systems Administrator
- Technical Support Specialist
- Training and Support Coordinator
- Web Design and Development
- Web Specialist
- Webmaster

Note: Anywere there is a (T) after a degree title, it indicates it is a transfer degree. If there is a (and, transfer) that indicates the two options are either a technical associate or a transfer associate degree.

Bates TECHNICAL COLLEGE

Program Overview:

In the ICT industry, careers in database management and database development are currently counted among the fastest growing occupations, and are projected to remain so over the next decade. With the increased use of wireless and mobile devices over recent years, there is a growing demand for technicians and specialists in the telecommunications industry. Bates' open-entry and open-exit structure allows students to start their education at several entry points throughout each quarter, and graduate as soon as industry competencies are demonstrated. If you're interested in a satisfying career with strong salary potential, this may be the field for you.

Students Develop Skills in:

- computer hardware
- desktop applications
- fiber optics
- file management
- hardware and software troubleshooting
- local area networks (LANs) administration
- network operating systems
- operating systems
- programming languages
- routing technology
- system security techniques

Degree Options:

Associate

- Computer Network Systems
- Computer Repair and Network Support
- Information Technology
- Software Development
- Web Development
- Wireless and Data Communication

Certificate Options:

- Computer Network Systems
- Computer Repair and Network Support
- Information Technology
- Software Development
- Web Development
- Wireless and Data Communication

Contact Information:

Jason Carroll
jcarroll@bates.ctc.edu
(253) 680 –7008

Program Overview:

Bellevue College (BC) has two main ICT programs: Information Systems and Networking Services. Each have tracks providing emphasis on specific technologies. The Information Systems program is designed to educate software professionals for careers as developers or system analyst careers. It provides maximum flexibility for students entering the ICT field. Students specialize in one of three areas: Software Development, Business Intelligence or Database Administration. The Network Services program focuses on how computers communicate and work together to ensure the security and effective operation of a company's computer networks. Students specialize in one of three areas: Operating Systems, Applications Support, or Routers and Network Infrastructure. The latter options cover competencies towards specific industry certification. Students who have completed both the Associate in Arts degree in NSCOM and the Associate in Arts and Sciences DTA are eligible to earn a Bachelor degree in Applied Technology degree at BC through Eastern Washington University via the Eastern at Bellevue partnership program. The Digital Media Arts program is designed for students interested in studying the creation, use, and management of high-quality digital media content. The primary focus is on the application of digital tools to create videos, games, 3D animations, screen designs and digital graphics in a project-based, hands-on learning environment. Course work prepares graduates to work as freelancers or in a variety of industries as digital media creators and content managers.

Students Develop Skills in:

- animation
- administration
- customer service
- gaming
- business intelligence
- databases
- hardware
- networking
- programming

- system design
- security
- technical support
- video production
- web design and development

Degree Options:

Associate in Arts

- Information Systems
- Network Services and Computing Systems

Certificates Options:

- Animation and Graphics
- Database Administration Specialist
- Cisco Support Technician
- Digital Gaming
- Digital Video
- Intermediate Applications Developer
- Introductory .NET Programming
- Introductory C++ Programming
- Microsoft Network Support
- Programming for Web Development
- Relational Database Analyst
- Relational Database Developer
- Web Multimedia Authoring

Contact Information:

Janice Grayson
janice.grayson@bellevuecollege.edu
(425) 564-2311

Program Overview:

The Computer Network Technology program offers an Associate in Applied Science degree in Computer Network Technology and a certificate in Computer Network Support. Students are prepared to manage computer network systems through a combination of classroom theory and practical application. They develop the knowledge and skills to troubleshoot and repair computer systems and design, install, and maintain Local Area Networks (LANs). This program prepares students for obtaining industry standard certifications such as Microsoft Certified Professional (MCP), A+, Network +, and Linux+. The Computer Software Support Technology program prepares students for employment in jobs such as Computer Support Specialist, Technical Support, Computer Software Specialist, or Help Desk Technician. It also prepares them for obtaining industry certifications such as Microsoft Certified Professional (MCP), A+, and Network+. Students will gain a working knowledge of a variety of computer software and fundamental office and customer service skills as well as specialized computer skills and knowledge.

Students Develop Skills in:

- customer service
- databases
- introductory programming concepts
- hardware
- networking
- operating systems
- presentation graphics
- spreadsheets
- web design
- word processing

Degree Options:

Associate in Applied Science
- Computer Networking
- Computer Software Support

Certificate Options:
- Computer Application Specialist
- Computer Network Support

Contact Information:

Business & Computer Information Systems
Jack Wollens
(360) 752-8364
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Computer Network Technology
Lee Falta
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(360) 752-8419

Program Overview:

The Computer Science programs are currently undergoing a redesign process. The new programs will focus on computer programming and systems administration. The programs will prepare students for technical careers and transfer options to complete their four-year degree at a university or college. The programs will prepare students for careers in software development, web development and design, or network and server administration. Careers in programming and systems administration are currently counted among the fastest growing occupations, and are projected to remain so over the next decade.

Students Develop Skills in:

- computer hardware
- database development and design
- hardware and software troubleshooting
- local area networks (LANs) administration
- network administration
- network operating systems
- operating systems
- programming languages
- security
- system administration
- software development
- web design
- web development

Degree Options:

Students will earn degrees in software development, web development and design, network or server administration. These degrees also include opportunities to prepare for and take industry certifications.

Contact Information:

Connie Rodriquez
connier@bigbend.edu
(509) 793-2045

CASCADIA
COMMUNITY COLLEGE

Program Overview:

These programs prepare students to work both independently and as part of a team to design, implement, and maintain an organization's hardware and software network.

Students Develop Skills in:

- computer hardware
- database development and design
- hardware and software troubleshooting
- local area networks (LANs) administration
- network administration
- network operating systems
- programming languages
- system administration
- security design
- technical support
- web design
- web programming

Degree Options:

Associate in Applied Science

- Network Technology
- Web Applications

Certificate Options:

- JavaScript Programming
- Network Specialist
- Technical Specialist
- Web Foundations

Contact Information:

Mike Panitz
MPanitz@cascadia.edu
(425) 352-8211

Program Overview:

Clark offers beginning computer classes as well as computer language courses recommended for lower division studies leading to a four-year degree in computer science. Students seeking a transfer degree should work with department advisors.

Students Develop Skills in:

- application integration
- applications software
- communication
- computer network operations
- maintaining technical documents
- microcomputer hardware and software
- networking standards
- planning and building networks
- problem solving
- software solutions development
- troubleshooting networks

Degree Options:

Associate in Applied Arts and Science

- Computer Network Administrator
- Microcomputer Support Specialist
- Software Solutions Development

Certificate Options:

- Microcomputer Support Specialist
- Software Solutions Development Database Development
- Software Solutions Development Specialist
- Software Solutions Development Web Programming

Contact Information:

William Hafer
whafer@clark.edu
(360) 992-2816

Program Overview:

This program prepares students for careers involving the protection of information on computers and networks against unauthorized access or modification of information, and against the denial of service to authorized users. Curriculum content includes basic and advanced computer and networking skills, physical and virtual security processes and procedures, and introduction to security management, planning, and recovery as well as other related ICT positions.

The AAT or AAS-T degree is earned by completing technical core requirements, general education requirements, and choosing one specialty option: Option 1: Cisco Network Design and Security; Option 2: Computer and Communications Security; or, Option 3: Microsoft Network Administration and Security.

Students Develop Skills in:

- computer forensics
- computer hardware
- desktop applications
- hardware and software troubleshooting
- local area networks (LANs) administration
- network administration
- network operating systems
- operating systems
- routing technology
- system security techniques
- web security

Degree Options:

Associate of Applied Technology
Associate of Applied Science (T)

- Applications Systems Technology
- Computer Information Technology
- Computer Networking and Information Systems Security
    - Cisco Network Design and Security
    - Computer and Communications Security
    - Microsoft Network Administration and Security
- Database Programming
- Media Design and Production
- Web Programming

Contact Information:

(253) 589-5791
www.cptc.edu/CISS

Or,

Kelly Hollowell
Kelly.Hollowell@cptc.edu

Program Overview:

Edmonds Community College offers programs to prepare students for a variety of high-tech careers with great salaries. Both two-year associate degrees and one-year certificates are offered. The program also prepares students to transfer to a four-year institution with a Computer Science transfer degree and our ATA degrees transfer to Central Washington University (CWU) towards a degree in Information Technology and Administrative Management.

Students Develop Skills in:

- computer hardware repair and maintenance
- CISCO networking including routing and switching
- database theory and design
- desktop applications
- digital forensics analysis
- hardware and software troubleshooting
- network administration
- operating systems
- programming
- software engineering
- systems analysis
- web design and programming

Degree Options:

Associate of Technical Arts

- Computer Information Systems
- Database Information Technologies
- Web Applications Developer
- Network Security Specialist
- Network Technology
- Information Security and Digital Forensics

Certificate Options:

- Business System Analyst
- Desktop Support Specialist
- Digital Forensics
- Game Development
- Linux Security Specialist
- Network Security Specialist
- Network Technology
- Unix/C++
- Windows/C++
- Web Development

Contact Information:

Program Manager
cispa@edcc.edu
(425) 640-1902

Program Overview:

Everett Community College offers a variety of professional-technical programs in high demand occupations. Short-term training, certificates and a variety of specific Associate in Technical Arts (ATA) degrees provide many options for students seeking to sharpen skills and enter or advance within their careers. Students interested in Computer Information Technology have several options, which are described below. One option is to pursue the Associate of Science Degree (AS) for the purpose of preparing for transfer to a university to major in computer science (Software Engineering). Another option is to pursue the Associate of Applied Science Degree (AAS-T) for the purpose of transferring into the Central Washington University program (Technical Support). A third option is to pursue the Associate of Technical Arts Degree (ATA) which is similar to the transfer degree with less stringent General Education requirements.

Students Develop Skills in:

- cabling fundamentals
- communicating with peers, clients and supervisors
- data management and protection
- hardware repair
- Internet connectivity using TCP/IP protocols
- maintaining technical documents
- networking standards
- planning and building networks
- planning and implementing security policies
- software deployment and support
- troubleshooting networks

Degree Options:

Associate of Science (and, transfer)
- Computer Science

Associate of Technology Arts (ATA)
- Visual Communication
  - Digital Illustration
  - Graphic Design
  - Web Design

Certificate Options:
- Computer Support Technician I and II
- Casino Gaming Systems
- Internet Programming (Web and Database)
- Project Management

Contact Information

Al Moser
amoser@everettcc.edu
(425) 388.9127

GRAYS HARBOR COLLEGE

Program Overview:

Grays Harbor offers two programs in Computer Information Systems Programs: Technical Support and Information Technology.

Students Develop Skills in:

- business technology software applications
- hardware
- internet fundamentals
- management
- network client services
- operating systems
- programming
- server administration
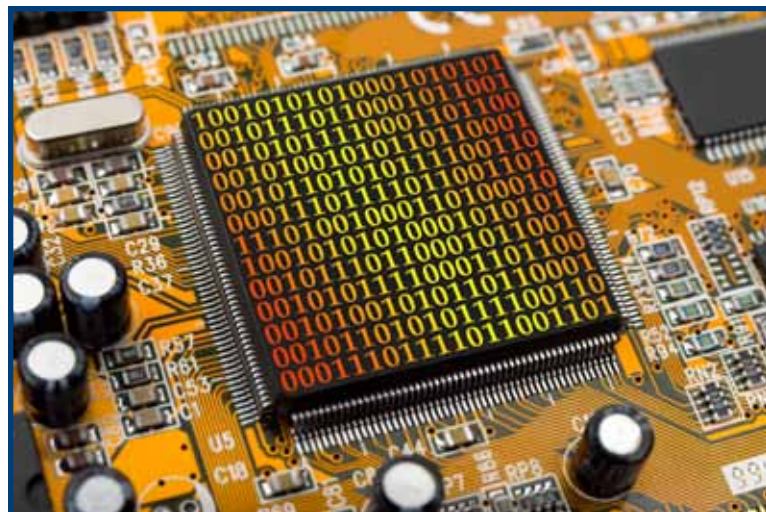- systems support
- technical support
- systems

Degree Options:

Associate in Applied Science

- Information Technology
- Technical Support Specialist

Contact Information

Darrleyn Miller
dmiller@ghc.edu

Information Technology

Program Overview:

The Information Technology degree and certificate programs prepare students for entry-level employment in a variety of IT positions, including: PC repair technician, help-desk support technician, technical support specialist, network technician, computer security specialist/information assurance technician, and network or computer systems administrator. Students in these degree programs receive education and training in a broad range of subjects, resulting in a balanced, well-rounded knowledge of Information Technology.

Students Develop Skills in:

- computer hardware
- customer service
- desktop applications
- file management
- hardware and software troubleshooting
- help desk
- network administration
- network operating systems
- operating systems
- PC hardware and software
- programming languages
- project management
- security
- server software
- system administration
- system security techniques
- troubleshooting
- wireless networking

Degree Options:

Associate in Applied Science (T)

- Computer Support Specialist
- IT Information Assurance
- IT Networking
- IT Networking Infrastructure
- IT Systems

Associate Pre-Professional

- IT – Computer and Software Systems

Certificate Options:

Certificate of Proficiency:

- Help Desk Support Technician
- Information Assurance Technician
- Network Technician
- PC Repair Technician

Contact Information:

Alan Carter
acarter@greenriver.edu
(253) 833-9111 ext. 4630

Program Overview:

The Computer Science/Computer Information Systems (CSCI/CIS) Department provides courses and programs designed to prepare students with the technical skills and knowledge to be successful in a variety of Information Technology-related careers. Students graduating from CSCI/CIS pursue careers as Web Designers, Web Developers, Network Specialists, or specialists in Computer Forensics or Data Recovery.

Students Develop Skills in:

- computer hardware
- data recovery
- file management
- hardware and software
- network administration
- network forensics
- operating systems
- programming languages
- routing technology
- server-side scripting
- system security techniques
- 3D graphic and gaming applications

Degree Options:

Associate in Applied Science (T)

- Computer Science

Associate in Applied Science

- Data Recovery and Forensics
- Information Systems Project Coordinator
- Network Specialist
- Web Database Developer

Certificate Options:

- Data Recovery and Forensics
- Gaming
- Networking
- Web/Database Developer

Contact Information:

Rav Kang
rkang@highline.edu
(206) 878-3710 ext 3337

Program Overview:

The Information Technology Applications Development program is designed to prepare individuals to work as entry-level application developers within an organization. Students will acquire the skills to design, code, implement, and maintain programs and database systems that provide computer-based solutions to business problems. The Information Technology Applications Development degree program offers the students an opportunity to further develop skills in greater depth. In the final term students collaborate on a project that simulates a real-life team-based applications development environment, or complete an industry-based internship.

Students Develop Skills in:

- coding
- creating solutions utilizing appropriate software tools
- debugging programs and software applications
- designing programs and software applications
- programming
- software engineering
- understanding and analyzing software related problems

Degree Options:

Associate of Applied Science (and, transfer)
- Information Technology Applications Development

Certificate Options:

Certificate of Proficiency
- Software Development
- Web Applications Development

Certificate of Completion
- C#/C++ Programmer
- .Net Programmer

Contact Information:

Paul Axtel
paul.axtel@lwtc.edu
(425)739-8493 x493

Computer Science

Program Overview:

The Computer Science Associate in Sciences-Transfer (AS-T) degree is designed to prepare graduates to transfer to universities to work toward a Bachelor of Science in Computer Science. The career goal is to be able to work as a computer scientist or software engineer.

Start your bachelor's degree in computer science or computer engineering, train for a career, or update your skills for a better job. Lower Columbia Basin's Computer Science career programs provide students with a solid basis in theory and understanding, plus the hands-on practice they need to achieve an entry-level job in this family-wage field.

Students Develop Skills in:

- computer programming
- customer service
- databases
- networking
- spreadsheets
- web development and design

Degree Options:

Associate in Applied Science (and, transfer)
- Computer Science

Certificate Options:
- Help Desk Technician
- Networking
- Programming
- Web Development

Contact Information:

David Rosi
drosi@lowercolumbia.edu
(360) 422-2717

Program Overview:

North Seattle's Information Technology (IT) program is designed to give students the skills and background employers want - whatever your career goal or experience level. Whether they are building IT knowledge on an existing knowledge base, upgrading your skills, or just starting to train for a career, NSCC's programs can students for the next wave of IT positions with IT courses that provide a foundation of IT skills for a variety of workplaces.

Students Develop Skills in:

- computer hardware
- database development
- desktop applications
- fiber optics
- file management
- hardware and software troubleshooting
- local area networks (LANs) administration
- network administration
- network operating systems
- operating systems
- programming languages
- routing technology
- system security techniques
- web development

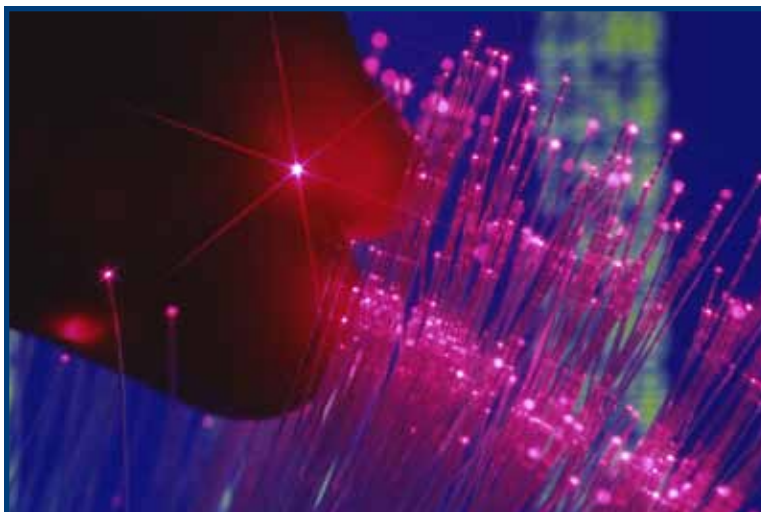## Degree Options:

Associate of Applies Science (T)
- IT Network Infrastructure and Security Support Specialist
- Network Security Specialist

Certificate Options:
- IT Network Infrastructure and Security Support Specialist
- Network Security Specialist

Contact Information:

Betsy Campbell
bcampbel@sccd.ctc.edu
(206) 528-4524

Program Overview:

The Computer Information Systems program prepares the graduates to obtain employment and become productive IT support personnel in a business-oriented systems environment. This modular program allows students to custom design their degree based on their needs within a series of certificates that make up the core of this degree.

Courses prepare students for industry certifications, such as A+, CISSP, CCNA and MCP, in the areas of Cisco, Microsoft, Security, Technical Support, Networking and Project Management. Students can take these and other industry certification exams at the Olympic College Testing Center.

Students Develop Skills in:

- analyzing, designing, and building application solutions
- business communication
- business management
- create network solutions
- deploying IT security solutions
- developing web solutions
- project management
- using computers to automate business information systems
- working in teams

Degree Options:

Associate in Applied Science
- Information Systems Specialist

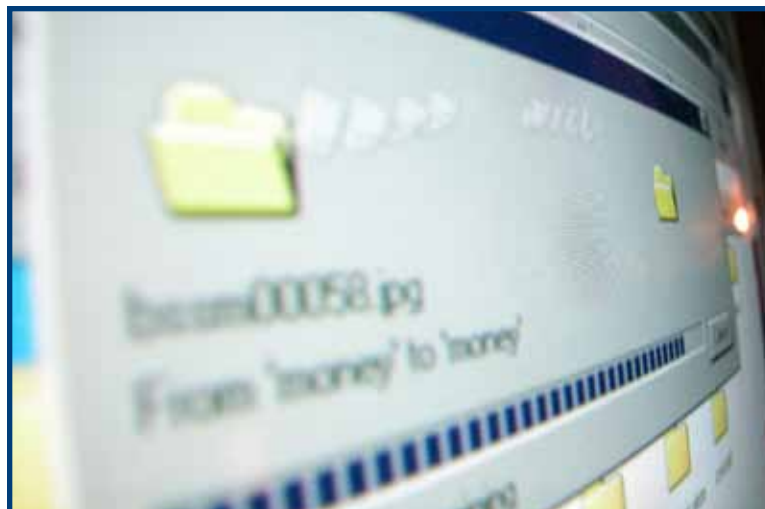**Associate in Technical Arts**
- Computer Information Systems

Certificate Options:

- Network Support Technician
- Technical Support

For short-term certificates of recognition go to: http://www.olympic.edu/Students/Degrees-Certificates/ProfessionalTechnicalPrograms/ComputerInformationSystems/

Contact Information:

Don Bergman
dbergman@olympic.edu
(360) 475-7377

![Peninsula College logo]

Program Overview:

The Associate of Applied Science (AAS) degree in Information Technology – IT Administrator\Business will train and educate students using industry-based skill standards. Students will learn to design, implement and support network technology on various operating systems. Students will learn about fundamental business language concepts and effective business communication skills. Additionally, students will receive the training necessary to take some Microsoft and Linux certification exams.

The Peninsula College's Computer Applications Technology (CAT) department provides training in software applications from basic skills to the expert level, depending on your level of need. The skills taught in this program are the most frequently requested competencies sought by employers throughout all industries.

Students Develop Skills in:

- computer hardware
- database administration
- desktop applications
- file management
- hardware
- network administration
- network operating systems
- operating systems
- programming languages
- software
- technical support
- web development and design

Degree Options:

Associate of Applied Science (and, transfer)

- Computer Applications Technology
- Computer and Web Applications
- Information Technology
    - Administrator-Business

Certificate Options:

- Application Fundamentals
- Computer Applications Technology
- IT CISCO Network Specialist

Contact Information:

Computer Applications Technology

Eduardo Jaramillo
ejaramillo@pencol.edu

Information Technology

Steven Snyder
ssnyder@pencol.edu

**Pierce College (Fort Steilacoom)
and Pierce College (Puyallup)**

Program Overview:

Computers of all shapes and sizes perform hundreds of business functions – from bookkeeping and recordkeeping, to high powered futures analysis and industrial forecasting. They have become essential tools in today's business world, making those with computer skills and knowledge just as essential.

The widespread use of computers for processing technical information has opened a career field which continues to grow. If you're interested in becoming a part of that field, our Computer Information Systems department gives you a variety of choices associated with network engineering, network administration and services with which to build a future.

Students Develop Skills in:

- computer hardware
- desktop applications
- hardware and software troubleshooting
- local area networks (LANs) administration
- operating systems
- network administration
- network operating systems
- Unix
- network security

Degree Options:

Computer Network Engineering

Certificate Options:

Computer Systems Administration

Contact Information:

Ciaran Bloomer
Cbloomer@pierce.ctc.edu

Renton Technical College

Program Overview:

The Computer Programming program is ideal for those individuals with no previous experience who wish to enter this exciting and demanding career field. Course offerings are designed to take students from learning the fundamentals of programming through the creation of complex programs written in higher level languages. The full program consists of 320 hours of instruction, with a Certificate of Completion awarded. Students who progress through the program without interruption may be able to complete the program in as little as one year, with six quarters being nominal. The Computer Science program is follow-on to the Applications Developer certificate. The student's education is expanded to prepare for entry in various careers in the Information Technology industry.

Students Develop Skills in:

- database development
- develop and test client-server applications
- hardware
- networking
- programming
- software
- virtual environments
- web development

Degree Options:

Associate of Applied Science (T)

- Computer Science
- Applications Developer

Certificate Options:

- Applications Developer
- Computer Programming
- Computer Science

Contact Information:

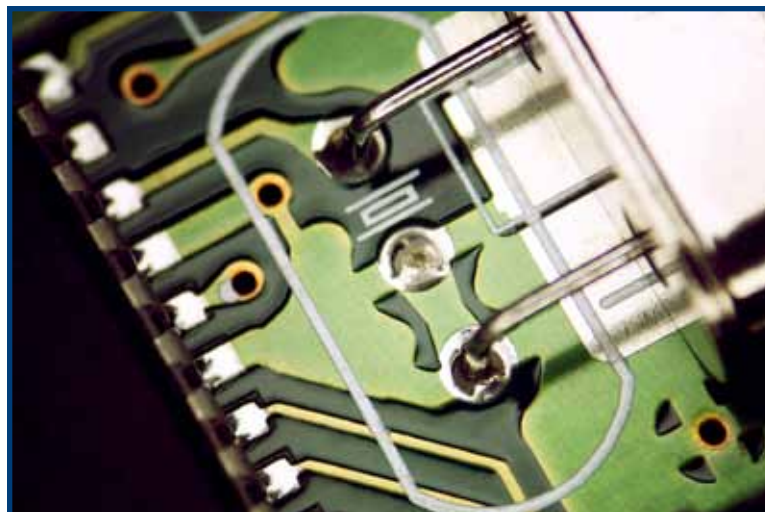Karen L. Braunstein-Post
kpost@rtc.edu
(425) 235-7818

Program Overview:

Despite the recent economic downturn, the information technology field is still growing faster than any other section of the economy. The Bureau of Labor Statistics Occupational Outlook Handbook 2008-2009 states: "Employment is expected to increase much faster than the average as organizations continue to expand their use of technology." The Washington State Occupation Explorer confirms these job growth statistics for our state as well. There is a critical shortage of qualified IT professionals, and excellent opportunities exist with both large and small companies and in the public sector.

Seattle Central's Information Technology program offers a varied suite of degrees aligned to current industry needs. The courses are taught by faculty who keep in close contact with industry professionals to consistently update their knowledge and skills to share and support their students.

Students Develop Skills in:

- database administration
- desktop applications
- hardware and software troubleshooting
- network administration
- network operating systems
- operating systems
- programming languages
- technical support
- web design
- web development

Degree Options:

Associate of Applied Science (T)

- Applications Support
- Computer Programming
- Film and Video Communications
- Network Design and Administration
- Web Design
- Web Development

Certificate Options:

- Applications Support
- Business Information Technology
- Computer Programming
- Database Design and Administration
- Network Design and Administration
- Web Design and Web Development

Contact Information:

Lisa Sandoval
lsandoval@sccd.ctc.edu
206.287.5558

Program Overview:

The Business Technology program helps prepare individuals for jobs in today's computerized business environments. Students complete hands-on computer training in current word processing, spreadsheet, database, and presentation software. Students study human relations, mathematics, and communications - all essential for success in the workplace. Graduates of the program may find employment in a variety of office and administrative support positions. Students in the program develop skills essential in an office environment. The Visual Communications Technology program is designed to provide an integrated foundation of knowledge and practice in visual design principles; graphic and typographic design; photography and video; computer graphic technologies; and offset printing, prepress and new imaging technologies. Based on personal and career interests, students select an area of concentration in graphic design, print production, photography and video, digital interactive media or marketing.

Students Develop Skills in:

- communications
- computer hardware
- desktop applications
- human relationships
- digital interactive media
- software troubleshooting

Degree Options:

Associate of Applied Science (and, transfer)

- Business Technology
- Visual Communication Technology
    - Digital Arts and Imagery
    - Digital Image Production
    - Digital Interactive Media
    - Graphic Design
    - Marketing

Certificate Options:

- Business Technology
- Digital Arts and Imagery
- Digital Image Production
- Digital Interactive Media
- Graphic Design
- Marketing

Contact Information:

Robert Shields
rshields@shoreline.edu
(206) 546-4773

Program Overview:

Computer Information Systems (CIS) is a two-year program that leads to an Associate in Technical Arts (ATA) degree. The program offers a degree in Computer Information Systems and five certificates: Microcomputer Applications, Computer Information Systems, Network Technician, and the Micro Certificates in Computer Forensics, and Database/Programming. The program can be completed completely online in a distance educational format, except for the Computer Forensic certificate. A distance education approach is recommended for self-motivated students with strong computer skills.

Students Develop Skills in:

- computer hardware
- database and design
- hardware and software troubleshooting
- network support
- operating systems
- programming languages
- security systems

Degree Options:

Associate in Technical Arts

- Computer Information Systems

Certificate Options:

- Computer Forensics
- Computer Information Systems
- Database and Programming
- Microcomputer Applications
- Network Technician

Contact Information:

Doris Dunn
doris.dunn@skagit.edu
(360) 679-5315

SOUTH PUGET SOUND
COMMUNITY COLLEGE

Program Overview:

The Computer Programming and Database Management program is designed for persons interested in writing computer programs in various languages, such as Visual Basic, C# and Java, both stand-alone and web-based. Duties include analysis of business needs and problems, design of software solutions, application of industry standard tools and techniques for software development and preparation of documentation and user training materials applying sound verbal and written skills. The Computer Network Administration Program prepares students for positions in network technical support. Duties include hardware and software support, troubleshooting, customer service and training, user support, email support, and network security. The Office Administration program equips the student with a variety of skills used in large or small businesses through the study of keyboarding, formatting, communications, human relations, management, word processing, spreadsheets, and other related courses. Duties include formatting, composing letters, managing records, and reception duties.

Students Develop Skills in:

- communication
- database and programming concepts
- develop, create and debug programs
- document, communicate, and resolve customer issues
- ethical responsibilities and consequences
- evaluate and process quantitative and symbolic data
- navigation of relations to others in a multicultural world
- plan and implement database systems
- recognize customer needs
- think logically and critically
- use industry standard programming tools and techniques
- workstation configuration, upgrades, and software installations

Degree Options:

Associate in Applied Science (and, transfer)
- Computer Programming

Associate in Applied Science
- Database Management
- Information Technology Desktop Support
- Office Administration
- Network Administration

Certificate Options:
- Office Administration

Contact Information:

Computer Programming
Steve Kollmansberger
skollmansberger@spscc.ctc.edu
(360) 596-5307

Office Administration
Jean Logen
jlogan@spscc.ctc.edu
(360) 596-5279

Network Administration
George Neal
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(360) 596-5528

South Seattle Community College

Program Overview:

The Network Technician program is for people who enjoy solving PC hardware, operating systems, common applications and network problems. Students learn to diagnose, document and correct problems. Graduates work in Information Technology or as Help Desk technical support personnel. The Network Administration program is for students who want to specialize in IT networking and become decision-makers relating to the design, implementation, security and management of computer networks. Students work with hardware, operating systems, LAN, WAN and wireless environments. The program constantly evolves along with the fast changing networking world.

Students Develop Skills in:

- database design, development, administration
- employability skills
- hardware
- LAN, WAN networks
- operating systems
- network administration
- programming
- server setup and installation
- technical support
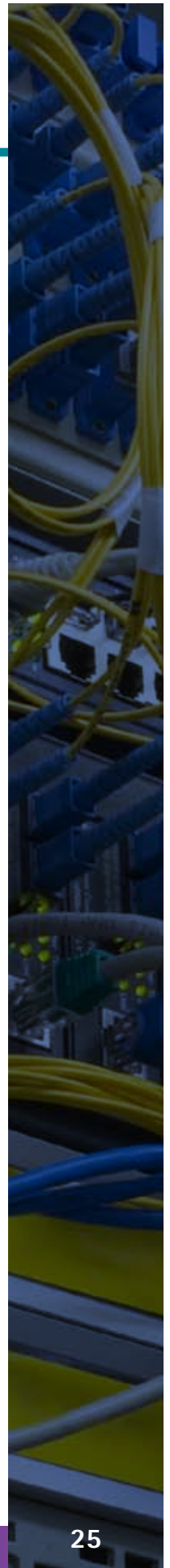- web page development, design, and implementation

Degree Options:

Associate of Applied Science (and, transfer)

- Network Administration
- Network Technician

Contact Information:

Carol Koepke
ckoepke@sccd.ctc.edu
(206) 764-5394

Spokane Community College
Your Dream is Our Mission

Program Overview:

The Network Design and Administration program prepares students as local- and wide-area network administrators. Successful completion of the program provides students with the essential skills of network administration including network design, implementation, maintenance, optimization, and troubleshooting, utilizing a variety of network operating systems, and hardware platforms and protocols.

The Software Development program educates students in both web and desktop programming concepts including XHTML, JavaScript, Java, Visual Basic.Net, ASP.Net, Ruby on Rails, C#, SQL, Agile development and other technologies and concepts essential for developing state-of-the-art software. Graduates will demonstrate proper software design patterns, soft skills necessary to work on a team, and research methods required in a highly technologically competitive environment. Upon completion, graduates will have acquired skills necessary to design and write database driven software that runs on the desktop (Windows) and Internet (web pages).

Students Develop Skills in:

- database administration
- LAN networks
- net development
- network administration
- operating systems
- programming languages
- security
- web programming

Degree Options:

Associate of Applied Science
- Network Design and Administration
- Software Development

Certificate Options:
- Computer Science
- .Net Developer
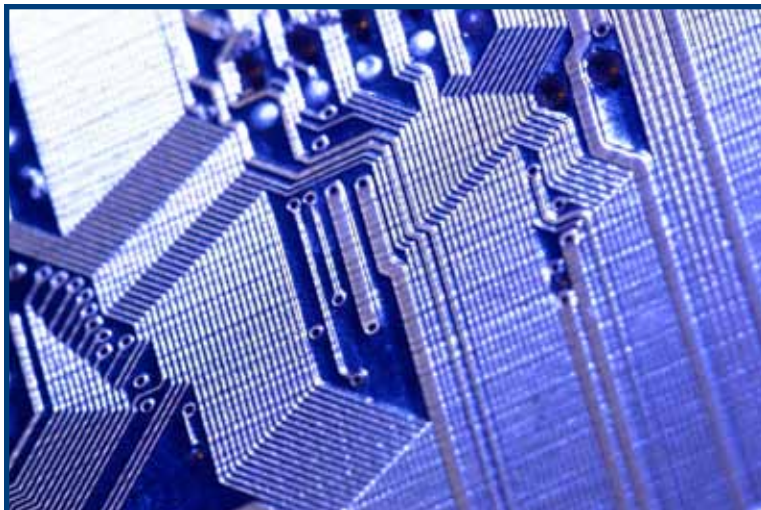- Network Design and Administration
- Web Design
- Web Development

Contact Information:

cis.scc.spokane.edu

Or,

Echo Rantanen
ERantanen@scc.spokane.edu

**Spokane Falls
Community College**

Program Overview:

The Information Systems and Computer Science Department at Spokane Falls maintains multiple missions.

The three Computer Science degrees provide a transfer capability for students who want to major in computer science or computer engineering. Applicable classes include introduction to computer science CS I and CS II, OOP with C++, C, Java, and beginning and advanced Visual BASIC, computer literacy and UNIX. The Information Technology A.A.S. degree program is designed to provide students with capabilities in several areas of information technology. This degree insures that the student is knowledgeable in a broad spectrum of information technology subjects that are often needed by the IT industry. The first year is made up of mostly core requirements with more specialization in the second year.

Students Develop Skills in:

- client/server side programming
- computer and network installation
- networking
- programming
- security and forensics skills
- web server installation and maintenance

Degree Options:

Associate of Applied Science (DTA & T)

- Computer Science

Associate of Science (T)

- Computer Engineering Emphasis
- Computer Science Emphasis

Associate of Applied Science

- Information Technology

Certificate Options:

- Computer Forensics and Network Security
- Computer and Network Support
- Computing Software Applications
- Internet
- Internet with Networking Option

Contact Information:

Max Josquin
maxj@spokanefalls.edu
(509) 533-3796

TACOMA COMMUNITY COLLEGE

Program Overview:

The first two years of a bachelor's degree in Computer Science may be completed at Tacoma Community College. The program of studies listed below leads to the Associate of Science Degree, Computer Science Specialization. Upon completion of this degree, students may be able to transfer to most four-year colleges and universities as juniors. Although members of the computer science department make every effort to consult with various colleges and universities regarding requirements, students are encouraged to consult catalogs, websites and advisors at their chosen four-year institutions during their freshman year.

In two years or less, students can learn or enhance current skills in Networking & Convergence Technologies. Additionally, Tacoma Community College is ready to improve employment prospects with optional internships, resume and interview workshops, and the many services of our Career Center. Upon completion of training, students may wish to take advantage of industry certification test preparation and testing offered by Tacoma Community College's Testing Center.

Students Develop Skills in:

- hardware
- programming
- networking
- operating systems
- routing
- security
- server applications
- software applications
- technical support
- wireless networking

Degree Options:

Associate of Science
- Computer Science

Associate of Applied Science
- Network and Convergence Technologies

Certificate Options:

- Help Desk Technician
- Network Administration and Support
- Technical Support

Contact Information:

Computer Science

Gregory Ferencko
gferencko@tacomacc.edu
(253) 566-5305

Network & Convergence Technologies

Erika Bowles
ebowles@tacomacc.edu
(253) 566-5253

Program Overview:

Computer Science endeavors to create an understanding of computer operating systems, programming, digital design for the web, and computer applications and hardware allowing the student to solve computer-related problems. Courses are taught in lecture, lab, and cooperative (on-the-job) training formats. Courses are developed by the Computer Science Program Advisory Board, which consists of experts working in local and regional computer-related businesses and senior faculty.

Students Develop Skills in:

- desktop publishing
- hardware and software troubleshooting
- local area networks (LANs) administration
- network administration
- operating systems
- programming languages
- system security techniques
- web design

Degree Options:

Associate in Applied Arts and Science

- Digital Design
- Informatics in Networking
- Informatics in Software Design

Certificate Options:

- Informatics in Digital Design
- Informatics in Networking
- Informatics in Software Design

Contact Information:

Susan Quinn
susan.quinn@wwcc.edu
(509) 527-4232

Program Overview:

The computer technology department of Wenatchee Valley College offers a variety of certificate and degree programs to meet the needs of both students and the business community. Students can choose to specialize in either programming or networking, or combine courses from both disciplines to fit their needs.

Students Develop Skills in:

- hardware and software troubleshooting
- network administration
- network operating systems
- programming languages
- system security techniques
- web design

Degree Options:

Associate of Technical Studies

- Network Administration
- Software Development

Certificate Options:

- Computer Technician

Contact Information:

David Burns
dburns@wvc.edu
(509) 682-6656
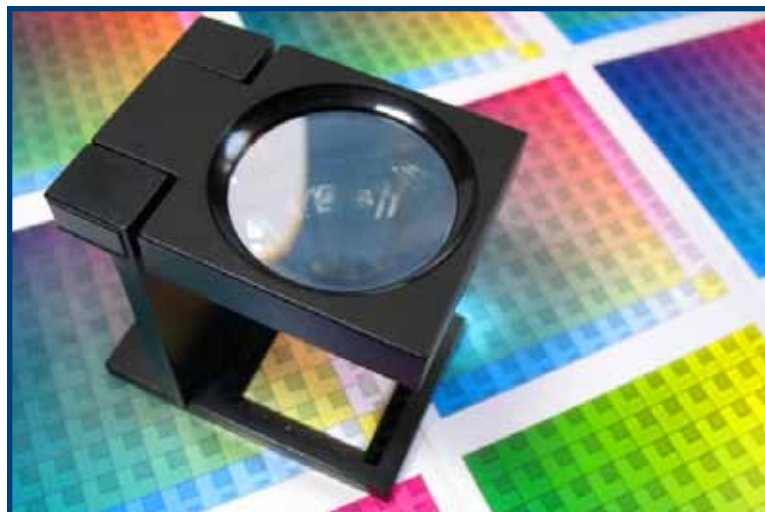
![Whatcom Community College logo]

Program Overview:

The Computer Information Systems Program includes a variety of degree and certificate options. The program has a special focus in cyber-security, with curriculum that maps to the national INFO-SEC Security Standard 4011. Join the CIS club and have the opportunity to compete in the Pacific Rim Cyber Defense Competition next year! WCC is a Cisco Academy, so you can prepare to take the Cisco Certified Network Associate certification. You can also take classes that prepare you for the CompTIA A+ certification exam. This program is perfect for the techno-savvy, or the person who would like to be.

The Visual Communications Program prepares students for entry into careers in the print, web, and digital media design fields. The 90-credit curriculum balances the development of conceptual and visual problem solving skills with development of technical skills and knowledge of current industry practices. The program offers two options for specialty study: Graphic Design and Web/Interactive Media Design.

Students Develop Skills in:

- graphic design
- hardware
- information security
- local area networks (LANs) administration
- networking
- oral and written communication
- technical support
- web design and development

Degree Options:

Associate in Arts
- Visual Communication

Associate in Science (DTA) – Computer Science
- Computer Forensics

Associate in Science
- Computer Information Systems

Certificate Options:

Computer Information Systems
- Information Security Professional
- Network Administration
- Technical Support

Contact Information:

Computer Information Systems
Corrinne Sande
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(360) 383-3552

Visual Communication
Jackie Landsem
jlandsem@whatcom.ctc.edu
(360) 383-3080

Program Overview:

The Information Technology program promotes success in the profession by effectively equipping students with the technology and communication skills necessary to meet the needs of a changing industry. The faculty is committed to delivering excellent instruction, and the college is dedicated to providing students with the tools to succeed. All full-time faculty have appropriate degrees or certifications. Yakima Valley Community College offers exciting Information Technology degree programs. Our modern facility offers computer classrooms, one hardware classroom, and one CISCO router classroom.

Students Develop Skills in:

Information Technology degree candidates must complete a 59-credit core which includes courses that present the following concepts:

- communications
- computation
- ethics/law theory
- hardware
- history
- human relations
- internet
- networking
- programming
- software

The core helps students determine which degree they want to work toward and presents a solid foundation in the Information Technology discipline. Students then select a degree option which totals at least 90 credits upon degree completion. Degrees are awarded upon completion of the required degree courses with a minimum GPA of 2.0.

Degree Options:

Associate of Applied Science

- General Degree
- Network Administrator
- Support Specialist
- Web Technologist

Certificate Options:

Information Technology

- General
- IT Computer User

(*For short-term certificates go to http://yvccit.com/)

Contact Information:

Information Technology Program

http://yvccit.com
(509) 574-4792

Or,

Kevin Palmateer
kpalmateer@yvcc.edu