

GENERAL INFORMATION

Students interested in Computer Science have many different options. An informative resource for reviewing the scope of the field is the Occupational Outlook Handbook. The following descriptions are drawn from that handbook.

Computer scientists work as theorists, researchers, or inventors. Their jobs are distinguished by the higher level of theoretical expertise and innovation they apply to complex problems and the creation or application of new technology. Those employed by academic institutions work in areas ranging from complexity theory, to hardware, to programming-language design. Some work on multidisciplinary projects, such as developing and advancing uses of virtual reality, extending human-computer interaction, or designing robots. Their counterparts in private industry work in areas such as applying theory, developing specialized languages or information technologies, or designing programming tools, knowledge-based systems, or even computer games.

Systems analysts solve computer problems and apply computer technology to meet the individual needs of an organization. They help an organization to realize the maximum benefit from its investment in equipment, personnel, and business processes. Systems analysts may plan and develop new computer systems or devise ways to apply existing systems' resources to additional operations. They may design new systems, including both hardware and software, or add a new software application to harness more of the computer's power. Most systems analysts work with specific types of systems—for example, business, accounting, or financial systems, or scientific and engineering systems—that vary with the kind of organization. Some systems analysts also are known as systems developers or systems architects.

Networks come in many variations, so **network systems and data communications analysts** are needed to design, test, and evaluate systems such as local area networks (LANs), wide area networks (WANs), the Internet, intranets, and other data communications systems. Systems can range from a connection between two offices in the same building to globally distributed networks, voice mail, and e-mail systems of a multinational organization. **Network systems and data communications analysts** perform network modeling, analysis, and planning; they also may research related products and make necessary hardware and software recommendations. **Telecommunications specialists** focus on the interaction between computer and communications equipment. These workers design voice and data communication systems, supervise the installation of those systems, and provide maintenance and other services to clients after the system is installed.

The growth of the Internet and the expansion of the World Wide Web (the graphical portion of the Internet) have generated a variety of occupations related to the design, development, and maintenance of Web sites and their servers. For example, **webmasters** are responsible for all technical aspects of a Web site, including performance issues such as speed of access, and for approving the content of the site. Internet developers or **Web developers, also called Web designers**, are responsible for day-to-day site design and creation.

With the Internet and electronic business generating large volumes of data, there is a growing need to be able to store, manage, and extract data effectively. **Database administrators** work with database management systems software and determine ways to organize and store data. They identify user requirements, set up computer databases, and test and coordinate modifications to the systems. An organization's database administrator ensures the performance of the system, understands the platform on which the database runs, and adds new users to the system. Because they also may design and implement system security, database administrators often plan and coordinate security measures. With the volume of sensitive data generated every second growing rapidly, data integrity, backup systems, and database security have become increasingly important aspects of the job of database administrators.

Quoted and Adapted from Occupational Outlook Handbook, May 2008
www.bls.gov/oco/ocos042.htm

Check out our other programs related to computer technologies:

- * **Associate in Technical Arts in Computer Information Technology**
- * **Associate in Applied Science-Transfer in Computer Information Systems**
- * **And certificates in Computer Support technician, Internet Programming, Project Management and Casino Gaming Systems.**

PREPARATION

Typically, entry into these careers requires a bachelor's degree and usually a master's degree. Universities offer preparation for these careers in several different ways by offering a variety of majors: Computer Science, Math, Engineering, Business Information Systems, Information Management, to name a few. All of these majors share a common emphasis on a strong mathematics background.

You can start your preparation for a major in computer sciences by following EvCC's **Associate of Science** degree program. This curriculum guide outlines the degree program for a computer science major.

EvCC offers the **Associate of Science Degree**, designed as part of a transfer agreement with a variety of universities in Washington. The degree offers qualified students priority for admission with junior status at most 4-year institutions in Washington. Students interested in colleges and universities outside of Washington may also find the requirements of this degree to be appropriate.

The **Associate of Science Degree** requires that the student complete all freshman and sophomore math and science courses and a limited number of courses in English, Humanities and Social Science. Upon transfer, the student will be eligible for junior level science courses, but will need to complete the remaining distribution requirements before graduation with a baccalaureate degree.

Please discuss your interests and course selection with an advisor.

If you are interested in Engineering you should consult the curriculum guide for Engineering. If you are interested in Information Management or Business Administration with an Information Systems or Computer Science minor, you should consult the curriculum guide for Business Administration. In any case, it is extremely important that you work closely with an EvCC advisor and with advisors at your intended university.

PROGRAM ADVISORS

For on-campus credit courses and programs, please contact:

Michael Crehan, Rainier 362, 425-388-9048
mcrehan@everettcc.edu

**HUMANITIES AND SOCIAL SCIENCES FOR
THE ASSOCIATE OF SCIENCE DEGREE
15 credits in three different disciplines, selected
from both (A) and (B) below**

**SOCIAL SCIENCES DISTRIBUTION 15 credits minimum
from at least 3 different disciplines**

B

Anthropology: 400, 402D, 405D, 116D, 122D, 202, 202D, &204, 205, &206D, 240D, &210D, 244, 244D, &216D, 224D, 222D, &227D, 228, 230, 230D, &234D, 240D, 255D

Communication Studies: &102

Economics: 101, 200, 204, &201, &202

Engineering: 101 for UW transfers only

Geography: 101, 102, 102D, 200, 201, 201D, 240, 220, 230, 240

History: 100, 404, 402, 103D, 111, 112, &146, &147, &148, 454, 452, 453, 170D, 210, &214, 232

Philosophy: 400, &101, 110, 445, 118, 215, 267

Political Science: &101, 200, &200, 204, 202, &202, 203, &203, &204, 205, 207, 209, 210D

Psychology: 400, &100, &200, 204, 203, 204, 205, 209, 220, &220, 230, 240, 265

Sociology: &101, 440, 160, 209, &201, 240, 210D, 220, 220D, 230, 233, 240, 248, 255, 255D, 257, 274

TRANSFER ELECTIVES (List A)

NOTE: Courses noted with a # are acceptable for students transferring AFTER Spring, 2007.

Accounting: 200, 204, &201, 202, &202, &203

Art: 275, 276, 277, 297

Biology: 114

Business: 404, &101, 102, 150, 200, &201, 240, 220, 230

Chicano Studies: 105D

Computer Information Systems: 404

Criminal Justice: 404, &101, &105#, &106#, &110#, 450#, 204#, 204#

Drama: &101, 107D

Early Childhood Education: 420, 420D#, 130

Education: 404, &115D#, 124, 445#, &202, &203#, 250-252#, 256#

Engineering: 400, 404, 402, &104, 108, 109, 442, 470, 490, 200, &204, 245, 298

English: &102, 150, 151, 152

Environmental Studies: 470

Film: 100

Geology: 403

German: 190

Global Studies: 101D, 165, 185D

Graphic Arts: 120#

Human Services: 101

Humanities: 400, 405, 115

Journalism: 450, 170

PEHW Pre-Professional courses: 201, 202, 203, 205, 206, 207, 208, 209, 240, 211, 216, 220, 224, 222, 223, 224, 225, 226, 227, 230, 235.

PEHW Activity courses 100 and above: Only 3 credits maximum may be applied toward the degree.

Photography: 115, 116, 117, 118, 200

Psychology: 150, 245, 254, 256

Sociology: 150, 254

Speech: 450

Theater: 205, 206

** Students who have earned credits in an area designated with a **strike through** may use the credits even though the course is no longer offered.
** **Common Course Numbers** are represented with an ampersand (&) next to the number.

A

HUMANITIES DISTRIBUTION

15 credits minimum from at least 3 different disciplines; no more than 5 credits from foreign language, and no more than 5 credits from Performance Skills (HP) in the next section.

*Note: University of Washington foreign language exception: First year foreign language (404, 402, 403, &121, &122, &123) **may not** be allowed for distribution credit if used to satisfy foreign language proficiency requirement. Refer to the University of Washington -- Additional Requirements section.

Humanities unrestricted list:

Art: &100, 420, 424, 124, 124D, 429, 220, 221, 222, 224

American Sign Language: 404*, 402*, 403*, 204, 202, 203, &121*, &122*, &123*, &221, &222, &223.

Chinese: 404*, 402*, 403*, &121*, &122*, &123*.

Communication Studies: &102, 103, 104, 204D, &210, &220, &230.

English: &111, &113, 445, 446, 447, 448, 449, 449D, 120, 120D, 423, 423D, 135D, 171, 172, 173, 474, 175D, 183, 183D, 485, 489, 489D, 203, 203D, 222, 222D, 223, 223D, &224, &225, 229, 232, 233, 234, 240, &246, 247, 245, 251, 252, 253, &254, 263D, 284, 285

French: 404*, 402*, 403*, &121*, &122*, &123*

German: 404*, 402*, 403*, 204, 202, 203, 207, 208, 209, &121*, &122*, &123*, &221, &222, &223

History: 100, 404, 402, 103D, 111, 112, &146, &147, &148, 454, 452, 453, 170D, 210, &214, 232

Humanities: 404, &101, 110D, 125, 150, 150D 160, 160D, 462, 465, 166D, 170, 486, 210, 247, 247D, 248

Italian: 404*, 402*, 403*, &121* &122* &123*

Japanese: 404*, 402*, 403*, 204, 202, 203, 207, 208, 209, &121*, &122*, &123*, &221, &222, &223

Journalism: 450

Lushootseed: 404*, 402*, 403*

Music: 400, 409, &105, 110, 110D, 115, 116, &141

Philosophy: 400, &101, 110, 445, 118, 150, 215, 267

Russian: 404* 402* 403*, &121*, &122*, &123*

Spanish: 404*, 402*, 403*, 204, 202, 203, 207, 208, 209, &121*, &122*, &123*, &221, &222, &223

Speech: 400, 404, 402, 403, 409, 440, 204, 204, 204D, 205, 207

Theater: 404, 405, 407D

**Humanities restricted list - Performance Skills (HP): (5 credits maximum)
(this category is optional)**

Art: 400, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 123, 135, 200, 201, 202, 203, 205, 206, 207, 208, 210, 211, 212, 213, 214, 215, 216, 249, 270, 271, 272, 273, 274, 280

English: 105, 106, 108, 109, 440, 165, 166, 168, 169, 205, 206, 208, 209,

Music: 117, 118, 119, 424, 422, 423, 124, 125, 126, 128, 140, 147, 151-159 460, 464, 463, 175, 217

Theatre: 400, 404, 402, 403, 440, 444, 444, 445, 446, 447, 448, 424, 130, 204, 240, 244, 242

APPLIED ELECTIVES - 5 credits maximum. Any course numbered 100 or above and not listed under Distribution or Transfer Electives (List A), except English 400, Math 430, ~~Cn Bs~~ 421 thru 428, CSA 400, 404, Art 130, Physics 130.

Associate of Science

This checklist is targeted at transfer students with an interest in a **COMPUTER SCIENCE** major at a university. Students should meet with an advisor and maintain this checklist while at Everett Community College. The quarter before expected completion, this checklist should be submitted with a diploma application to the Enrollment Services Office. Note: Though courses in a foreign language are not required in the Associate of Science degree, some universities may require two or three quarters of foreign language for admission or for graduation.

Courses listed with an ampersand in the course number (e.g. ENGL&101) reflect the new Common Course Numbering System.
 Courses in [brackets] are the "old" course numbers and may be used to satisfy requirements. For more information, go to www.everettcc.edu/ccn

Student Name: _____ Advisor Signature: _____ Date: _____

COMPLETION of Diversity Course

(Where Completed/Course Title) (Year Completed) (Grade)

Course Number	Course Title	Credits	Quarter Completed	Grade
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BASIC COMMUNICATIONS SKILLS (5 credits)

ENGL& 101	English Composition I	5		
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BASIC QUANTITATIVE SKILLS (Minimum 10 credits, selected from MATH& 151, 152, 153, 254 [152, 153, 154, 252].)

HUMANITIES AND SOCIAL SCIENCE (15 credits, in three different disciplines, selected from both the Humanities and Social Science course list for the Associate of Science – see next page.)

SCIENCE AND MATH (See Note 1.)

PHYS& 221/231 [121/131]	Engineering Phys I Lab	5.5		
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PHYS& 222/232 [122/132]	Engineering Phys II Lab	5.5		
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PHYS& 223/233 [123/133]	Engineering Phys III Lab	5.5		
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Lab Science (selected from lab science list on previous page)		5 or 5.5		
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Computer programming course selected based on university requirements. Consult an advisor.

- CS& 131 [CP 130], CS 132 and/or CS& 141 [CP 140], or
- ENGR 142

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MATH& 153, 254 or 146 [154, 252 or 281]		5		
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ELECTIVES (Selected with an advisor. No more than 5 credits may be selected from the "B" list)

Total: minimum 90 credits required, minimum 2.0 GPA. See Note 2.

Note 1: Prerequisites: This program of study assumes the student has college level English and math skills. All new students are required to take the EvCC English and Math placement tests. The AS degree requires completion of at least 15 credits in math, including a third quarter of calculus or Statistics.

Note 2: Though a minimum 2.0 GPA is required to earn the degree, it is unlikely that it will meet the admission requirements for most universities and departments. Admission typically requires a very high GPA.



GETTING STARTED AT EVCC

Our Enrollment Services Office provides information about application, advising, orientation and registration for new and continuing students. Though advising is voluntary, all prospective and current students are invited to contact the Enrollment Services Office or the Counseling Advising and Career Center (CACC) if they would like to speak one-to-one with an advisor about getting started at EvCC. Contact:

- ◆ Enrollment Services, Jackson Center, 425-388-9219, admissions@everettcc.edu
- ◆ CACC, Third Floor, Parks, 425-388-9260

ABOUT EVERETT COMMUNITY COLLEGE

Improve your personal skills, discover new ideas, prepare for work and/or university transfer, and improve your career prospects through programs at EvCC.

Each term, about 9,900 students enroll in a wide variety of courses. Day, evening, distance, and workplace-based options are available. Students may enroll on a full-time or part-time basis. EvCC offers two-year associate degrees, short-term certificates, endorsements and industry certifications.

Student life can be active. Currently, EvCC offers athletic programs in basketball, baseball, and soccer, to name a few.

Student clubs range from Phi Theta Kappa (the Honor Society) to the United Native American Council to the International Club to the German Club, and more. Our Student Government and Programs Board are always on the go with activities that make college life fun. There are also opportunities to develop leadership skills.

Student services are designed to support students in their studies, remove barriers, and enrich student life. Financial aid services offer grant and loan opportunities, as well as scholarships. Our Counseling, Advising and Career Center has a rich array of information and personal assistance for students. The Diversity and Equity Center supports student activities and College programs that promote growth and opportunity toward cultural understanding.

Former EvCC students have found employment in business and industry, in small business, in community service agencies, in schools, and in other locales. Our transfer students are known to do very well at the UW, WWU and other schools.

**EvCC's
University Center**

Looking for educational options close to home?

Check out our new University Center, offering a variety of Bachelor's and Master's degrees –

**Right here.
Right now.**

www.uceverett.org

Everett Community College does not discriminate on the basis of race, religion, creed, color, national origin, age, sex, sexual orientation, marital status, the presence of any physical, sensory or mental disability, or status as a disabled or Vietnam era veteran in its program and activities, or employment. The Vice President of Student Services has been designated to handle inquiries regarding student-related non-discrimination policies and can be reached at 2000 Tower Street, Everett, WA 98201, or by phone at (425)388-9589. The Associate Vice President of Human Resources has been designated to handle employment-related inquiries regarding the non-discrimination policies and can be reached at 2000 Tower Street, Everett, WA 98201, or by phone at (425)388-9232. This publication is effective JANUARY 2010. The College reserves the right to change courses, programs, degrees and requirements. It is the student's responsibility to be aware of correct information by routinely checking with Enrollment Services and/or the advisors listed in this publication. Requirements applicable to all certificates and degrees are published in the College Catalog. Nothing contained herein shall be construed to create any offer to contract or any contractual rights. For more information, call 425-388-9219, Everett Community College, 2000 Tower Street, Everett, WA 98201, www.everettcc.edu