COMPUTER SCIENCE

CAREER DEVELOPMENT CENTER
MAJOR DISCOVERY SERIES

Bachelor of Science: Computer Science
Bachelor of Science: Information Technology
Minor: Computer Science, Information Technology, and Web Development

The Bachelor of Science degree in Computer Science offers students two separate tracks of study: Software Development and Information Technology. The Software Development track is the traditional computer science degree. It focuses on the fundamentals for computer science. Students who receive a degree in the Software Development track may choose to work in a variety of areas after graduation, such as application development, software engineering and software support, or go on to graduate school. The Information Technology track focuses on the broader technology areas of computer science, including design, development, implementation, support and management of computer-based information systems. Upon graduation, these students may choose to work as security specialists, network managers or technicians, system administrators or web developers. Employers recommend one or more internships to be successful and competitive when entering this field.

Career types associated with Computer Science
(Is this a good fit for you? Are you…)
Investigative - "Thinker"
Conventional - "Organizer"
Social - "Helper"

Related skills, values, and qualities
- Ability to adapt to constant change
- Proficiency in reading, writing, and thinking, questioning, analyzing and problem solving
- Ability to think logically and organize
- Proficiency with computers
- Aptitude for accuracy and detail
- Strong math background
- Ability to work under pressure
- Ability to concentrate for long periods of time

Courses Computer Science majors typically enjoy
- Algebra, Trigonometry, Calculus
- Computer Programming
- Computer Science
- Criminal Justice
- Information Technology
- Networking
- Cyber Security
- Web Development

Common interests of Computer Science majors
- Working with computers
- Troubleshooting and repairing electronic equipment
- Completing puzzles or playing games of strategy
- Solving logic problems
- Participating in Computer Science or related clubs
- Working part-time or volunteering in a computer Store/department
- Reading computer publications

For more information about the major
Contact the Computer Science and Information Technology Department, 256 Old Main, 610-683-4340, or visit www.kutztown.edu/Computer Science

KU Majors related to Computer Science
Mathematics, Physics, Communication Design

Investigative students may also be interested in: Anthropology, Biology, Biochemistry, Chemistry, Criminal Justice, Economics*, Environmental Science, Geography, Geology, German Studies, History, International Studies*, Marine Science, Multicultural Studies*, PA German Studies*, Political Science, Psychology, Sec Edu- Math/Science, Sociology, Spanish, and Women's Studies*

* minor only

FOUR STEPS
TO SUCCESS

EXPLORE › DISCOVER › EXPERIENCE › IMPLEMENT

1ST YEAR

- Enroll in the Career Exploration Certificate.
- Attend info sessions to learn about career development and personal branding.
- Take a career assessment to identify and confirm interests.
- Get involved in campus clubs and organizations.
- Develop basic workplace skills through jobs or volunteer work.
- Talk with professors, family, and friends about career ideas.
- Conduct informational interviews with professionals working in fields of interest.
- Develop a relationship with your professors and faculty advisor.

2ND YEAR

- Meet with CDC career coach.
- Attend info sessions to learn about resume writing, and externships.
- Confirm your choice of major and consider options for double major or minor.
- Research careers of interest.
- Complete a job shadowing (externship) experience.
- Seek meaningful employment or volunteer work in a field related to your major.
- Explore options for undergraduate research and study abroad.
- Write a resume and have it reviewed by the CDC.
- Manage your online presence.

3RD YEAR

- Enroll in the Career Success Certificate.
- Complete an internship and/or undergraduate research.
- Attend info sessions about internships, interviewing, job search strategies, and grad school.
- Build a LinkedIn profile and continue to monitor your online presence.
- Complete a mock interview.
- Build skills through research projects, part-time employment, and volunteer work.
- Participate in Careers Cafe & networking programs.
- Attend internship & job fairs.
- Take on a leadership role in a student organization or work.
- Consider graduate school options and prepare for admissions tests.

4TH YEAR

- Attend your senior kick-off and other info sessions to prepare for job search/grad school.
- Update your resume and LinkedIn profile.
- Create cover letter drafts.
- Gain experience through internships and/or undergraduate research.
- Secure references for job/grad school applications.
- Create your "30 second" commercial.
- Meet with CDC to develop job search strategies.
- Research employers.
- Network with professionals through events and social media.
- Join a professional organization in your discipline.
- Attend the senior etiquette dinner.
- Participate in job fairs and on-campus interviewing.

Sample Career Titles

Computer Science majors can be found working in a wide variety of career fields. Here are just some career titles that may be of interest. Please note that some jobs may require further education and training. To learn more about these careers, visit http://online.onetcenter.org or www.bls.gov/oco.

Application/Programmer	Engineering Lab Technician	Production Scheduler/Planner
Communications Specialist	Environmental Technologist	Production Support Specialist
Computer Consultant	Hardware Sales/Service Person	Programmer: Engineering & Sci.
Computer Engineer	Information Scientist	Software Development Specialist
Computer Facilities Manager	Information Systems Developer	Software Engineering Specialist
Computer Installation Specialist	Information Systems Manager	Software Package Developer
Computer Marketing/Sales	Information Technology Manager	Software Salesperson
Computer Operator	Internet Developer	Software Support Tech/Specialist
Computer Security Analyst	Market Analyst	Systems Administrator/Analyst
Computer Service Technician	ISO Specialist	Systems Consultant
Computer Systems Analyst	LAN/Logistics Manager	Systems Programmer
CQI Production Manager	Materials Controller	Systems Technical Manager
Cryptographer/Cryptologist	Meteorologist	Technical Sales/Support Rep.
Cybersecurity	Network Administrator/Manager	Technical Writer
Database Analyst/Administrator	On-Line Services Manager	Technology Consultant
Data Communications/Security Analyst	Operating Systems Programmer	Telecommunications Manager
Distribution Manager	Operations Manager/Analyst	Urban Planner
Educator/Trainer	PC Support Specialist	User Support Analyst
Employee Relations Specialist	Product Development/Line Manager	Value Engineer
End-User Computing Manager/ Technician	Product Forecaster/Estimator	Web Master

Common Internship Sites and Employers

Computer Science majors often find internships and employment in the following fields/industries.

- Banks & Investment Firms
- Business & Industry
- Colleges/Universities
- Consulting Firms
- Federal, State & Local
- Healthcare

- International Agencies
- Manufacturing
- Military
- Research & Development
- Telecommunications

KU Career Network is the primary online resource
for preparing and connecting students and alumni with employers.
www.kutztown.edu/KUCN

Useful Websites for Computer Science Majors

Whether you are researching related career fields, applying for internships or jobs, or planning to join a professional association, these websites are for you!

Industry Information & Job/Internship Search Sites

Computer Jobs
www.computerjobs.com

Computer World
itjobs.computerworld.com

Computer Work
www.computerwork.com

Dice
www.dice.com

Internet Society
www.internetsociety.org

Just Tech Jobs
www.justtechjobs.com

Tech America
www.techamerica.org

TechnoCentral
www.technocentral.com

LinkedIn Jobs
www.linkedin.com/jobs

Professional Associations

American Society for Info Science & Technology
www.asis.org

Association for Computing Machinery
www.acm.org

Association of IT Professionals
www.aitp.org

Association for Women in Computing
www.awc-hq.org

Computing Research Association
www.cra.org IEEE

Computer Society
www.computer.org

IT Association of America
www.itaa.org

Institute of Electrical & Electronics Engineers
www.ieee.org

International Assoc. for Technology in Education
www.iste.org

Building Your Resume for a Career in Computer Science

Building a strong resume for your career field starts long before you ever start your job search. Employers want to hire graduates who not only have the necessary educational background but also have experience applying that knowledge.

Caitlin Computer-Science
ccomp000@live.kutztown.edu, 555-555-5555

TECHNICAL COMPETENCIES
- Operating Systems: Windows, Linux
- Programming Languages: C++, Java, Python
- Web Languages: HTML, JQuery, PHP

QUALIFICATIONS
- Fluent in Spanish and English
- Experience communicating with diverse populations
- Strong interpersonal and problem solving skills

> Learn more about your field and develop the necessary skills for employment by gaining hands-on experience through clinical practice.

EDUCATION
B.S. Kutztown University of Pennsylvania — Kutztown, PA
Major: Computer Science/Software Development — Dec 20xx
GPA: 3.73
Dean's List — Fall 20xx-Spring 20xx

Related Courses: Web Programming, Java Programming, Programming Languages, Operating Systems, Software Engineering, Web-based Software Design and Development, Human Computer Interaction

INTERNSHIP & EXTERNSHIP EXPERIENCE
Computer Aid, Inc. — Allentown, PA
Programming and Development Intern — Spring 20xx
- Assisted with code development for tax processing system
- Tested and debugged various applications
- Created code documentation
- Presented group code summary project at annual company seminar

Student Extern — Sept 20xx
- Observed process of code development and troubleshooting techniques
- Attended "Tech Talk" focused on analysis and design for new applications

> Utilize summer breaks to acquire valuable experience via volunteer or employment opportunities related to your major.

RELATED EXPERIENCE
Kutztown University ResNet Helpdesk — Kutztown, PA
Student Support Staff Member — Fall 20xx-Present
- Assist with Adware/Spyware and Trojan removal
- Perform anti-virus installation, system updates and system restorations
- Complete troubleshooting tasks related to data recovery and printer/scanner issues
- Aide in security procedures such as student password changes
- Communicate effectively with ResNet staff and students

CAMPUS INVOLVEMENT & PROFESSIONAL DEVELOPMENT
Member, Kutztown Technology Association — Fall 20xx-Present
Member, Phi Kappa Phi National Honors Fraternity — Fall 20xx-Present
Member, American Computer Scientists Association (ACSA) — Fall 20xx-Present
Volunteer, Special Olympics, Kutztown University — Spring 20xx & 20xx
Recipient, Career Success Certificate, Kutztown University Career Development Center — Spring 20xx
Recipient, Career Exploration Certificate, Kutztown University Career Development Center — Fall 20xx

> Develop professionally through campus involvement and professional memberships. This illustrates responsibility, leadership abilities and time management skills.

WORK EXPERIENCE
Best Buy — Wyomissing, PA
Sales Consultant — Summers 20xx-20xx
- Answered technology-related inquiries regarding desktops, laptops and tablets
- Communicated with diverse staff to provide positive customer experience
- Resolved issues and complete customer returns