Computer Science

NORTHERN ARIZONA UNIVERSITY
College of Engineering & Natural Sciences

"Microsoft's only factory asset is the human imagination"
–Bill Gates

Unleash *your* imagination. Picture yourself rolling out your own breakthrough software to be the next Google or YouTube, working on the next generation of computer gaming engines, or developing new applications at Microsoft, IBM, or Intel. Whether you start a career right away or pursue graduate study first, the Department of Computer Science will build a platform for your high-tech dreams.

You'll like the personal attention of our professors—not teaching assistants—and our small class sizes (averaging 25). Our flexible degree programs allow you to follow your interests. Prepare to hit the career-ground running with our innovative **Design4Practice Program**. This sequence of team-based design courses focuses on implementation of real-world projects, simulating the highly integrated and globally distributed software development environments emerging in the modern corporate world. Work on project design teams with students from other disciplines to create software, building the technical and professional skills necessary for success in the expanding universe of high-tech. Thinking of study abroad to take advantage of global career trends? We strongly encourage international study and facilitate internships in other countries.

Wherever your imagination takes you, a computer science education at Northern Arizona University will open new doors.

Degree Programs

- **Bachelor of Science in Computer Science**
- **Bachelor of Science in Applied Computer Science**
- **Minor in Computer Science**

Career Opportunities

Study to become a . . .

- Software engineer
- Applied programmer
- Game developer
- Security specialist
- Enterprise web developer
- Systems administrator
- Systems analyst
- User interface designer

Begin your career in . . .

- Professional software development
- Software consulting
- Bio-informatics and data management
- Graphics and game development
- Defense software analysis
- Data mining and analysis
- Networking and security consulting
- Distributed GRID computing
- Telecommunications
- Systems integration services
- Research and development

"I spent one year abroad studying in Germany—an amazing opportunity. Each summer the career fair provided me with a well-paid internship and professional work experience at IBM and Lawrence Livermore National Laboratory. The professors were always available and approachable. I've worked at Los Alamos National Laboratory for the past year and plan to start my master's soon."

John Clark, BS in Computer Science, 2005

nau.edu/cs

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Explore Courses that Jump-start Your Career

Design your computing future
Advances in computer science, design, and engineering take plenty of cooperation. Employers are looking for new graduates who can operate effectively in the team environment. Our **Design4Practice Program** shows how. **Design4Practice** will give you hands-on professional experience from day one. Created with help from industry and agency partners, **Design4Practice** teaches the technical skills you'll need, plus the people skills traditionally left out of science and engineering curricula. In cross-disciplinary design courses you'll collaborate with students and faculty from the university's engineering and science programs to complete real-world projects. You'll gain a broad set of technical, managerial, and professional skills, including design and build, communication, teamwork, project management, and ethics. This required sequence culminates with your capstone senior project, mentored by a faculty member and sponsored by an external client. You will present results to sponsors and the public at the university's annual Celebration of Undergraduate Research and Design. Leave college ready to step into the professional computing world—and succeed.

Create your own world
Become a wizard at computer gaming in our **Virtual Worlds** course. Learn every aspect of computer game design from game flow theory to graphics design to implementation techniques. Work to design a variety of computer games based on your own vision.

Help build the web
As the traffic thickens on the information highway, the need for skilled web-builders rises, too. In **Enterprise Web Computing** you will learn tools for building industry-standard web portals, exploring technologies like web application frameworks and service-oriented architectures.

Experience the World of High-tech

We strongly emphasize undergraduate research. Qualified students are placed in faculty projects, often with pay. You'll find many opportunities with our computer science partners at institutions around the world, too. Study abroad could lead you to a university lab project or an internship with one of the partnering department's corporate contacts.

Our extensive new campus facilities include computing clusters, modern labs, and tools like virtualized server architectures, that allow advanced students to instantly create their own networks of virtual machines to explore, modify, and test.

Study Abroad

Study for a summer, a semester, or an academic year in universities around the globe. The university has cooperative agreements with institutions in Australia, Canada, France, Germany, Ghana, India, Ireland, Malta, Mexico, the Netherlands, New Zealand, Norway, and the United Kingdom. We provide international education opportunities to all academically qualified students. Start your travel planning with a visit to nau.edu/international.

Participate!

Meet with your peers over pizza and snacks to exchange ideas, plan activities, and host invited speakers. The student chapter of the **Association for Computing Machinery** also invites guest speakers and hosts computer gaming jamborees open to students from other academic programs.

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