The University of Colorado Denver (UCD) combines a tradition of excellence with a new vision for higher education in Colorado. By joining the strengths of a comprehensive campus in Denver with the research and advanced health care programs at the Anschutz Medical Campus, UCD now serves more than 29,000 students in Denver, Aurora and online. We confer more than 3,900 degrees each year and more graduate degrees than any other Colorado institution. With our solid academic reputation, award-winning faculty and renowned researchers, we offer more than 100 highly rated degree programs through 13 colleges and schools:

**Downtown Campus**
- College of Architecture and Planning
- College of Arts & Media
- Business School
- School of Education and Human Development
- College of Engineering and Applied Science
- College of Liberal Arts and Sciences
- School of Public Affairs

**Anschutz Medical Campus**
- School of Dental Medicine
- School of Medicine
- College of Nursing
- School of Pharmacy
- Graduate School
- Colorado School of Public Health

More than 13,400 students call our Denver Campus home, choosing from 80 degree programs at bachelor’s, master’s and doctoral levels. Our community of learners includes traditional and nontraditional students, from recent high school graduates to seasoned professionals. Students come from throughout Colorado, around the country and overseas—all seeking a respected educational program, a convenient schedule of offerings and a vibrant urban environment.

Located on the Auraria Higher Education Center, UCD is just steps away from Denver’s historic lower Downtown (LoDo) district with myriad entertainment, cultural and sports venues. Because we share the campus with two other institutions, our students have access to facilities and resources comparable to those of much larger public universities. They also enjoy the wide array of internship and job opportunities available in the vital, growing metropolitan area.

## Faculty
- **Gita Alaghband,** professor  
  PhD, University of Colorado  
  gita.alaghband@ucdenver.edu  
  Specialties: parallel processing, computer architecture
- **Tom Altman,** professor  
  PhD, University of Pittsburgh  
  tom.altman@ucdenver.edu  
  Specialties: theory, algorithms
- **Bogdan Chlebus,** associate professor  
  PhD, Warsaw University  
  bogdan.chlebus@ucdenver.edu  
  Specialties: algorithms, distributed computing, communication networks
- **Won-Hyung Choi,** associate professor  
  PhD, University of Iowa  
  won-choi@ucdenver.edu  
  Specialties: computer graphics, virtual reality, human-computer interaction
- **Ellen Gethner,** associate professor  
  PhD, Ohio State University (math); PhD, University of British Columbia (computer science)  
  ellen.gethner@ucdenver.edu  
  Specialties: graph theory and graph algorithms, combinatorial, discrete, and computational geometry, discrete mathematics, number theory
- **Richard Osborne,** assistant professor  
  clinical teaching track  
  PhD, University of Colorado  
  richard.osborne@ucdenver.edu  
  Specialties: database management systems, software engineering
- **Ilkyeun Ra,** associate professor  
  PhD, Syracuse University  
  ilkyeun.ra@ucdenver.edu  
  Specialties: high performance parallel and distributed systems, high-speed data communication systems
- **Boris Stilman,** professor  
  PhD, Moscow University  
  boris.stilman@ucdenver.edu  
  Specialties: artificial intelligence, linguistic geometry, software engineering
- **Will Trobaugh,** senior instructor and undergraduate advisor  
  MS, University of Colorado  
  will.trobaugh@ucdenver.edu

## Is this program for me?

Computer Science and Engineering (CSE) emerged about 30 years ago as a new field for research and development that combined the areas of computer science and computer engineering. Today the discipline is a cornerstone of engineering. The Department of Computer Science and Engineering on the Downtown Campus of the University of Colorado Denver opened its doors to students in the 1991–92 academic year. We are one of only about two dozen CSE departments in the United States.
Since graduating our first students, we have been expanding our teaching and research areas. Our faculty have authored computer science textbooks in the areas of geometric and parallel processing. The department has nine full-time faculty members and many part-time faculty.

The Department of Computer Science and Engineering offers a Bachelor of Science degree in Computer Science and Engineering, a Master of Science degree in Computer Science, and a PhD in Computer Science and Information Systems, a joint program with the Business School on the Downtown Campus. We are very proud of our diverse urban student population. The department is dedicated to the pursuit of scholarly excellence in both research and teaching, as well as an ethical and compassionate academic environment in which to sustain it.

Students will find the department maintains modern research laboratories in the areas of parallel and distributed systems, graphics, distributed computing and networking. All students have access to general purpose PC and MAC laboratories for use in programming assignments.

For a more detailed description of the Department of Computer Science and Engineering, degree programs, faculty and their research interests, and much more, visit the departmental website at engineering.ucdenver.edu/cse.

The Bachelor of Science in Computer Science and Engineering prepares students for creative work and graduate study in computer science and engineering. Because of the strong grounding in fundamentals they gain from the program, graduates are able to keep abreast of current technology as it continues to evolve.

Computer Science and Engineering (CSE) is a rigorous study covering theoretical, software, hardware and their interfaces providing students with a coherent, in-depth education of key components of the field. Early in the program, faculty emphasize the development of the conceptual foundations of computer science and engineering with topics such as algorithm development, programming language concepts, hardware-software interfaces, database systems, and the structure of computers. Later portions of the program focus on computer architecture, the interrelationship of hardware and software, embedded systems, computer networks, and software design.

To be awarded the Bachelor of Science in Computer Science and Engineering, a student must satisfactorily complete all coursework shown in the curriculum (see below), satisfy all UC Denver graduation requirements, and maintain a minimum 2.0 grade point average in all computer science and engineering courses attempted. All students are required to schedule an appointment with the undergraduate advisor every semester.

The Computer Science and Engineering program is dual-accredited by both the Computing Accreditation Commission (CAC) and the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET).

B.S. in Computer Science and Engineering — Typical Curriculum

**Freshman Year**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1401</td>
<td>4</td>
</tr>
<tr>
<td>Analytical Geometry and Calculus I</td>
<td></td>
</tr>
<tr>
<td>CSCI 1410</td>
<td>3</td>
</tr>
<tr>
<td>Fundamentals of Computing</td>
<td></td>
</tr>
<tr>
<td>CSCI 1411</td>
<td>1</td>
</tr>
<tr>
<td>Fundamentals of Computing Lab</td>
<td></td>
</tr>
<tr>
<td>CSCI 1510</td>
<td>3</td>
</tr>
<tr>
<td>Logic Design</td>
<td></td>
</tr>
<tr>
<td>ENGL 1020</td>
<td>3</td>
</tr>
<tr>
<td>Core Composition I</td>
<td></td>
</tr>
<tr>
<td>Core Curriculum Course</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>