Hands-on Learning
CU architectural engineering students learn their trade through hands-on work starting in their very first year. Hands-on design projects courses, extra-curricular opportunities, and internship experiences prepare our students with the technical, professional, and team skills that make them competitive for jobs after graduation.

Did You Know?
100% of CU-Boulder architectural engineering graduates are employed or in graduate school six months after graduation, with an average starting salary of $50,000.

Degrees Offered
BS | MS New!
BS/MS | PhD New!

Rankings (USNWR)
College
- 17th among public undergraduate engineering programs nationwide
- 20th among public graduate engineering programs nationwide

The undergraduate program in architectural engineering prepares students to design and build facilities that improve our quality of life. Architectural engineering students help solve many challenges of society: energy needs, building systems, urban development, and community planning. architectural engineers are leading users of sophisticated high-tech products, including computer-aided design and analysis software, nondestructive testing and measurement equipment, and state-of-the-art sensing devices. Offered through the Department of Civil, Environmental, and Architectural Engineering, the architectural engineering program prepares students for professional practice or graduate study, and is one of only 17 accredited architectural engineering programs in the U.S.

“"In my classes we use the structural and architectural plans of the Integrated Teaching and Learning Laboratory to learn about the different types of systems. It helps to be able to actually see how the plans look in real life.”
— Amber Shoals

What can I do with a degree in architectural engineering?
- Construction Engineer
- Structural Engineer
- Building Mechanical Systems Engineer
- Building Electrical & Lighting Systems Engineer
Architectural engineering

Choose an Area of Concentration

Architectural engineering focuses on the design and construction of safe and sustainable buildings. Our architectural engineering students achieve both breadth and depth by taking courses in all four areas listed below and choosing one area of specialization with more in-depth courses.

Construction Engineering and Management
Using technical and management skills, construction engineers turn designs into reality — on time and within budget — using knowledge of construction methods and equipment, budgeting and financing, planning, and project management. This discipline involves organizing a wide variety of skilled workers and specialists and leading them in the implementation of civil designs.

Electrical and Lighting Systems
These architectural engineers are responsible for designing electrical systems to distribute power within buildings. As a specialty in electrical systems, the lighting program provides a broad education in lighting, carefully balancing the aesthetic and technical aspects of the field. The CU lighting program has been known as a top program in the nation for more than 40 years.

Mechanical Systems
Those choosing to emphasize mechanical systems will work to effectively distribute water and air throughout a building, with a focus on the comfort and convenience of the building occupants. Of particular interest for these systems is the effective use of energy resources, including renewable energy. The CU program emphasizes principles of sustainable design in addressing these systems.

Structural Systems
The architectural engineer who specializes in structural systems determines the stresses that various loads cause within structural elements such as beams, columns, joists, and cables. The CU program provides knowledge of the physical properties of various building materials including steel, concrete, and wood, so these engineers can determine the necessary size and shape of the structural elements.

For more information visit ceae.colorado.edu

Department Highlights
- Approximately 50 scholarships are available annually to CU architectural engineering students.
- Many students find jobs and internships through our network of 4500+ department alumni.
- Students may take part in the Sustainable by Design Residential Academic Program in a new LEED Platinum certified residence hall (learn more at sbdrap.colorado.edu).

Industry Facts
- Americans spend an average of 90% of their time indoors, and 40% of U.S. energy goes into buildings.
- Architectural engineering focuses on building science to increase comfort and energy efficiency.
- CU is currently developing state-of-the-art heating, ventilating, and air conditioning (HVAC) and illumination laboratories.
- The CU-Boulder campus is home to 15 LEED-certified buildings.