Want to earn your Master of Science in civil engineering in one year of full-time study beyond your Bachelor of Science in civil engineering? Then take a look at our 4 + 1 program.

There are many reasons to consider a master’s degree:

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- Position yourself in a competitive employment market.
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The Master of Science program in **geotechnical engineering** offers opportunities for study and research in design and construction of structures built on, in or of natural/improved soils or rocks. As desirable construction sites in urban settings are fast becoming fewer, innovations in geotechnical engineering is arguably some of the most intriguing and interesting. Geotechnical engineering covers diverse areas such as earth retaining structures, reinforced soil structures, dams, tunneling, bridge abutments, landslide stabilization, environmental geotechnics, in-situ testing, new soil composites, soil-structure interaction, earthquake engineering, subsurface characterization, ground improvement, computational geomechanics, and geosynthetics. This specialty area allows professionals to have close association with field work and is excellent for students who love to work in and with the nature.

**JUNIOR YEAR**

**Fall Semester**
- CVEN 3111 Analytical Mechanics II
- CVEN 4728 Geotechnical Engineering II
- CVEN 5780 Geotechnical Geology
- MATH 3195 Linear Algebra/Differential Equations
- Varies Core Curriculum

**TOTAL CREDITS** 16

**SENIOR YEAR**

**Spring Semester**
- CVEN 4067 Senior Design
- CVEN 4xxx Design Elective (4 of 4)
- CVEN 4738 Intermediate Foundation Engineering
- CVEN 5708 Advanced Soils Engineering
- Varies Core Curriculum

**TOTAL CREDITS** 15

**GRADUATE YEAR**

**Fall Semester**
- CVEN 5718 Engineering Properties of Soils
- CVEN 5788 Introduction to Rock Engineering
- CVEN 5719 Design & Construction of GRS Structures
- CVEN 5950 Master’s Thesis (1 of 2)

**TOTAL CREDITS** 12

**GRADUATE YEAR**

**Spring Semester**
- CVEN 5709 Settlement Analysis
- CVEN 5798 Dynamics of Soils and Foundations
- CVEN 5xxx Graduate Elective
- CVEN 5950 Master’s Thesis (2 of 2)

**TOTAL CREDITS** 12

Ready to apply? Visit [http://engineering.ucdenver.edu/civil/admission-MS](http://engineering.ucdenver.edu/civil/admission-MS).

1. Courses count toward bachelor’s and master’s degrees.
2. CVEN-5960 Master Report and a second Graduate Elective may substitute for 2×(CVEN-5950).