

**MASTER OF SCIENCE IN CIVIL ENGINEERING  
GEOTECHNICAL ENGINEERING**

**On-Campus and DCE Students**

Program of study must include a minimum of 15 credit hours in Civil Engineering

**At Least 9 Credit Hours Required:** **Credit:**

CE 728 Adv. Geotechnical Design	3
CE 822 Shear Strength and Slope Stability	3
CE 824 Strength and Deformation of Geo-Materials	3
CE 828 Adv. Soil Mechanics	3

**At Least 12 Credit Hours Required<sup>1</sup>**

CE 625 Principles of Geoenvironmental Engg	3
CE 774 Pavement Design	3
CE 803 Numerical & Analytic Tech for Engg	3
CE 8XX Adv. Testing of Geo-Systems	3
CE 8XX ABAQUS Applications in Geo-Systems	3
GEOL 630 Stratigraphy – Sedimentation	3
MATH 632 Elementary Partial Diff. Eqns	3
ME 862 Finite Elements	3
STAT 703 Intro to Statistical Methods	3

**Suggested Electives:**

AGRON 816 Soil Physics	3
AGRON 916 Adv. Soil Physics	3
CE 654 Design of Groundwater Flow Systems	3
CE 680 Economics of Design and Construction	3
CE 703 Resp. in Engg: Codes & Professionalism	3
CE 704 Resp. in Engg: Leadership & Diversity	3
CE 741 Civil Engineering Materials II	3
CE 802 Adv. Mech. Mat. & Appl. Elasticity <sup>2</sup>	3
CE 837 Structural Stability	3
CE 854 Analysis of Groundwater Flow	3
GEOL 743 Intro to Geophysics	3
GEOL 745 Exploration Geophysics	3
GEOL 880 Clay Mineralogy	3
MATH 635 Dynamics, Chaos, and Fractals	3
ME 836 Intro to Fracture Mechanics	3
ME 902 Theory of Plasticity	3
STAT 770 Theory of Statistics I	3

<sup>1</sup> Can be substituted with more relevant courses to accommodate specific POS based on advisor approval.

<sup>2</sup> Cross listed with ME 802