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

Program of study must include a minimum of 15 credit hours in Civil Engineering. Other suggested electives may be selected with the approval of the student's advisory committee.

| At Least 9 Credit Hours Required: | redit: |
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| CE 728 Advanced Geotechnical Design CE 822 Shear Strength and Slope Stability of Soils CE 824 Strength and Deformation of Geo-Materials CE 828 Advanced Seepage and Settlement Analysis in Soils | 3 3 3 3 |
| At Least 9 Credit Hours Required: | |
| CE 774 Pavement Design CE 803 Num and Analytic Tech for Engr CE 827 Computational applications in geo-systems CE 816-C Deep Foundation Design | 3 3 3 3 3 |
| Suggested Electives 1: | |
| AGRON 816 Soil Physics AGRON 916 Adv Soil Physics CE 654 Design of Groundwater Flow Sys CE 680 Economics of Design and Construction CE 741 Civil Engineering Materials II CE 802 Adv. Mech. Mat. & Applied Elasticity ² CE 837 Structural Stability CE 854 Analysis of Groundwater Flow GEOL 630 Stratigraphy – Sedimentation GEOL 743 Introduction to Geophysics GEOL 745 Exploration Geophysics GEOL 880 Clay Mineralogy MATH 632 Elementary Partial Diff. Equations MATH 635 Dynamics, Chaos, and Fractals ME 836 Intro to Fracture Mechanics ME 862 Finite Elements ME 902 Theory of Plasticity | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 |
| STAT 705 Regression and Analysis of Variance STAT 713 Applied Linear Statistical Methods | 3 |

 $^{^{\}rm 1}$ Can be substituted with more relevant courses to accommodate specific POS based on advisor approval. $^{\rm 2}$ Cross listed with ME 802