MASTER OF SCIENCE IN CIVIL ENGINEERING
WATER RESOURCES ENGINEERING

At least 9 cr. required from:

- CE 654 - Design of Groundwater Flow Systems
- CE 751 - Hydraulics of Open Channels
- CE 752 - Advanced Hydrology
- CE 803 - Numerical and Analytic Techniques for Engineers
- CE 854 - Analysis of Groundwater Flow

At least 6 cr. required from:

- CE 625 - Principles of Geoenvironmental Engineering
- CE 725 - Seepage in Permeable Materials
- CE 760 - Environmental Engineering Seminar
- CE 762 - Water Treatment Processes
- CE 766 - Wastewater Engineering: Biological Processes
- CE 768 - Geoenvironmental Engineering Design
- CE 861 - Environmental Engineering Chemistry
- CE 863 - Water Supply and Wastewater Collection Systems
- CE 864 - Unit Operations and Processes in Environmental Engineering
- CE 866 - Advanced Wastewater Treatment
- CE 970 - Advanced Topics in Environmental and Water Resources Engineering

CE Water Resources Electives:

- CE 680 - Economics of Design and Construction
- CE 703 - Responsibility in Engineering: Codes & Professionalism
- CE 704 - Responsibility in Engineering: Leadership & Diversity
- CE 723 - Designing with Geosynthetics
- CE 728 - Advanced Geotechnical Design
- CE 786 - Land Development for Civil Engineers and Planners
- CE 790 - Problems in Civil Engineering
- CE 816 - Selected Topics in Civil Engineering
- CE 823 - Engineering Properties of Cohesive Soils
- CE 824 - Strength and Deformation of Geo-materials
- CE 825 - Environmental Geotechnology
- CE 828 - Advanced Soil Mechanics
- CE 916 - Advanced Topics in Civil Engineering
- GRAD 740 - Water and Society: Interdisciplinary Foundation

Additional Water Resources Electives:

- AGEC 525 - Natural Resource Economics
- AGEC 825 - Natural Resource Policy
- AGRON 655 - Site Specific Agriculture

- AGRON 706 - Remote Sensing of the Environment
- AGRON 746 - Physical Properties of Soils
- AGRON 816 - Soil Physics
- AGRON 820 - Plant Water Relations
- AGRON 893 - Agricultural Simulation Modeling
- AGRON 900 - Micrometeorology
- AGRON 901 - Environmental Instrumentation
- AGRON 916 - Advanced Soil Physics
- BAE 665 - Ecological Engineering Design
- BAE 669 - Watershed Modeling
- BAE 865 - Advanced Ecological Engineering Design
- BAE 869 - Advanced Watershed Modeling
- BIOL 612 - Freshwater Ecology
- BIOL 818 - Advanced Aquatic Ecology
- CHE 642 - Fundamentals of Conversion of Biorenewable Resources
- CHE 650 - Hazardous Waste Engineering Seminar
- CHE 663 - Environmental and Ecological Risk Assessment
- CHE 670 - Sustainability Seminar
- CHE 725 - Biotransport Phenomena
- CHE 862 - Advanced Transport Phenomena I
- CHE 867 - Advanced Transport Phenomena II
- CIS 734 - Introduction to Genomics and Bioinformatics
- GEOG 508 - Geographic Information Systems I
- GEOG 608 - Geographic Information Systems II
- GEOG 700 - Quantitative Analysis in Geography
- GEOG 725 - Geography of Water Resources
- GEOG 740 - Fluvial Geomorphology
- GEOG 890 - Advanced Spatial Analysis Techniques
- GEOL 611 - Hydrogeology
- GEOL 711 - Water Resources Geochemistry
- GEOL 870 - Groundwater Contaminant Remediation
- HORT 820 - Quantitative Agricultural Remote Sensing
- IMSE 822 - Advanced Engineering Economy
- LAR 720 - Public Lands and Natural Resources Law
- MATH 630 - Introduction to Complex Analysis
- MATH 632 - Elementary Partial Differential Equations
- MATH 705 - Computational Math
- MATH 655 - Elementary Numerical Analysis I
- MATH 656 - Elementary Numerical Analysis II
- ME 720 - Intermediate Fluid Mechanics
- ME 831 - Boundary Layer Theory
- PHYS 639 - Computations in Physics
- PHYS 801 - Mathematical Methods of Physics
- STAT 704 - Analysis of Variance
- STAT 705 - Regression and Correlation Analyses
- STAT 716 - Nonparametric Statistics
- STAT 770 - Theory of Statistics I
- STAT 771 - Theory of Statistics
- STAT 880 - Time Series Analysis