# **MSCE Cross Cutting Program**

## **Water Resources Engineering**

### **<u>Required CROSS-CUTTING Courses (12 credits)</u>**

Course	Term	Name
ENVE 750	F/W	Data-Based Engineering Modeling
or		or
ENVE 727		Risk Assessment
ENVE 555	F/F	GIS-I
or		or
CIVE 615		Infrastructure Condition Evaluation
CIVE 564	F	Open Channel Flow
CAEE 790	S	Engineering Life Cycle Analysis

## Required Theme Program Courses (12 credits)

Course	Term	Name
ENVE 681	F	Analytical and Numerical Techniques
ENVE 665	S/W	Hazardous Waste and Groundwater Treatment
or		or
ENVE 751		Environmental Modeling
CIVE 565	W/S	Urban Eco-Hydraulics
or		or
CIVE 567		Watershed Analysis
ENVE 501	F	Environmental Chemistry

### **Technical Elective Courses (12 credits)**

These courses must be approved by the student's advisor and the graduate advisor. From any of the following that were not already counted for credit:

Course	Term	Name
CIVE 565	W	Urban Eco-Hydraulics
CIVE 566	S	Sustainable Water Resources Engineering
CIVE 567	S	Watershed Analysis
CIVE 615	F	Infrastructure Condition Evaluation
CIVE 667	W	GIS in Water Resources
ENVE 555	F	GIS-I
ENVE 660	W	Chemical Kinetics
ENVE 661	S	Physical Treatment Processes
ENVE 665	S	Hazardous Waste and Groundwater Treatment
ENVE 727	W	Risk Assessment
ENVE 750	F	Data-Based Engineering Modeling
ENVE 751	W	Environmental Modeling

#### **Electives or Thesis (9 credits)**

For students writing an M.S. thesis, these nine credits should be 6 research credits and 3 Thesis Credits. Full-time Master students are encouraged to do a Thesis. Students opting not to do a Thesis will be required to select 9 credits of coursework from the Technical Elective Section listed above.