

Master of Science in Civil Engineering (MSCE)

Total Minimum Hours: 30

These degrees are for students doing a Master's thesis. The program consists of a minimum of 24 credit hours of coursework and 6 credit hours of thesis. Two credits of thesis must be taken the semester of graduation. Students without an engineering BS are required to complete undergraduate engineering pre-requisite courses.

Core Requirements (24 hours)

- A maximum of 9 credits taken outside the CEE department may be applied to meet the degree requirements.
- A maximum of 6 credits of 4000 level courses may be applied to meet the degree requirements.
- A maximum of 6 credits of independent study may be applied to meet the degree requirements.

Thesis Requirements (6 hours)

The Department supports MSCE concentration areas in Geotechnical Engineering (GTL), Interdisciplinary Transportation (ITP), Materials Engineering and Science (MTL), Structural Engineering (STR), Transportation Engineering (TPT) and Water Resources (WRS). Students work with a Major Professor and thesis committee to map out their graduate program and thesis requirements.

Master's thesis committees consist of the major professor in the department and at least two other members or co-major professors and at least one other member of the department or area of interest in which the degree is sought. Thesis committee members must be members of the graduate faculty or be approved by the department, college and graduate school to serve on the committee.

**MASTER OF SCIENCE CIVIL ENGINEERING (MSCE) with a Concentration in
ENGINEERING FOR INTERNATIONAL DEVELOPMENT**

Curriculum Program of Study Form (updated 08/17)

Name:		Term/Year Admitted into Program:	
USF ID #			
Phone:			
Email:			
Advisor:			

30 Total Credits of Coursework:

<i>Course Title</i>	<i>Number</i>	<i>Credits</i>	<i>Semester</i>	<i>Outside CEE?</i>	<i>Grade</i>
Required core courses:					
Sustainable Development Engineering	ENV 6510	3			
A minimum of 3 credits from the following:					
Research Methods in Applied Anthropology	ANG 6766	3			
Socio-cultural Aspects of HIV/AIDS	ANG 6730	3			
Health, Illness and Culture	ANG 6469	3			
A minimum of 3 credits from the following:					
Global Health Principles & Contemporary Issues	PHC 6764	3			
Global Health Assessment Strategies	PHC 6761	3			
15 credits of coursework (can include Independent Study):					
Description and length of international assignment:					
Thesis (minimum 6 credits required):					
Thesis: Masters	CGN 6971				
				Total Credits Outside CEE	
				Total Credits Independent Study	
				Total Credits (30 required)	

- ≤ 9 credits outside CEE
- ≤ 6 credits Independent Study
- 6 credits of Thesis

Advisor: Print or Type Name, Signature, and Date

Graduate Program Coordinator: Signature and Date

**MASTER OF SCIENCE CIVIL ENGINEERING (MSCE) WITH A CONCENTRATION IN
GEOTECHNICAL ENGINEERING (GTL)**

Curriculum Program of Study Form (updated 01/17)

Name:		Term/Year Admitted into Program:	
USF ID #			
Address:			
Phone:			
Email:			
Advisor:			

30 Total Credits of Coursework:

Course Title	Number	Credits	Semester	Outside CEE?	Grade
Required Core Courses:					
Foundation Engineering	CEG 5115	3			
Applied Finite Elements	CES 6118	3			
6 additional credits of coursework in Geotechnical or closely related areas:					
12 credits of electives:					
Thesis (minimum 6 credits required):					
Thesis: Masters	CGN 6971				
Total Credits Outside CEE					
Total Credits Independent Study					
Total Credits (30 required)					

- ≤ 9 credits outside CEE
- ≤ 6 credits Independent Study
- 6 credits of Thesis

Advisor: Print or Type Name, Signature, and Date

Graduate Program Coordinator: Signature and Date

**MASTER OF SCIENCE CIVIL ENGINEERING (MSCE) WITH A CONCENTRATION IN
MATERIALS ENGINEERING & SCIENCE (MTL)**
Curriculum Program of Study Form (updated 01/17)

Name:		Term/Year Admitted into Program:	
USF ID #			
Address:			
Phone:			
Email:			
Advisor:			

30 Total Credits of Coursework:

Course Title	Number	Credits	Semester	Outside CEE?	Grade
At least TWO of the following:					
Advanced Construction Materials	CGN 6933	3			
Electrochemical Diagnostic Techniques	CGN 6720	3			
Structural Life Prediction	CES 6010	3			
Corrosion Control	EMA 5326	3			
Characterization of Materials	EMA 6510	3			
6 Additional credits in Materials Engineering & Science or closely related areas:					
12 credits of electives:					
Thesis (minimum 6 credits required):					
Thesis: Masters	CGN 6971				
			Total Credits Outside CEE		
			Total Credits Independent Study		
			Total Credits (30 required)		

- ≤ 9 credits outside CEE
- ≤ 6 credits Independent Study
- 6 credits of Thesis

Advisor: Print or Type Name, Signature, and Date

Graduate Program Coordinator: Signature and Date

MASTER OF SCIENCE CIVIL ENGINEERING (MSCE) WITH NO CONCENTRATION
 Curriculum Program of Study Form (updated 01/17)

Name:		Term/Year Admitted into Program:	
USF ID #			
Address:			
Phone:			
Email:			
Advisor:			

30 Total Credits of Coursework:

Course Title	Number	Credits	Semester	Outside CEE?	Grade
24 credits of structured coursework (can include Independent Study) :					
Thesis (minimum 6 credits required):					
Thesis: Masters	CGN 6971				
Total Credits Outside CEE					
Total Credits Independent Study					
Total Credits (30 required)					

- ≤ 9 credits outside CEE
- ≤ 6 credits Independent Study
- 6 credits of Thesis

 Advisor: Print or Type Name, Signature, and Date

 Graduate Program Coordinator: Signature and Date

**MASTER OF SCIENCE CIVIL ENGINEERING (MSCE) WITH A CONCENTRATION IN
STRUCTURES ENGINEERING (STR)**

Curriculum Program of Study Form (updated 01/17)

Name:		Term/Year Admitted into Program:	
USF ID #			
Address:			
Phone:			
Email:			
Advisor:			

30 Total Credits of Coursework:

Course Title	Number	Credits	Semester	Outside CEE?	Grade
At least one of the following (design course):					
Advanced Concrete Design	CES 6706	3			
Design of Masonry Structures	CES 6835	3			
Prestressed Concrete	CES 5715C	3			
At least one of the following (analysis course):					
Applied Finite Elements	CES 6118	3			
Applied Elasticity	CES 6230	3			
Advanced Structural Analysis	CES 6144	3			
Structural Dynamics	CES 5209	3			
6 additional credits of coursework in Structures Engineering or related areas:					
12 credits of electives:					
Thesis (minimum 6 credits required):					
Thesis: Masters	CGN 6971				
				Total Credits Outside CEE	
				Total Credits Independent Study	
				Total Credits (30 required)	

- ≤ 9 credits outside CEE
- ≤ 6 credits Independent Study
- 6 credits of Thesis

Advisor: Print or Type Name, Signature, and Date

Graduate Program Coordinator: Signature and Date

**MASTER OF SCIENCE CIVIL ENGINEERING (MSCE) WITH A CONCENTRATION IN
TRANSPORTATION ENGINEERING (TPT)**

Curriculum Program of Study Form (updated 01/17)

Name:		Term/Year Admitted into Program:	
USF ID #			
Address:			
Phone:			
Email:			
Advisor:			

30 Total Credits of Coursework:

Course Title	Number	Credits	Semester	Outside CEE?	Grade
Required Core Courses:					
Traffic Systems Engineering	TTE 5205	3			
Transportation Planning and Economics	TTE 5501	3			
Travel Demand Modeling OR Statistical and Econometric Methods	TTE 6507 CGN 6933	3			
3 additional credits of coursework in Transportation Engineering or closely related areas:					
12 credits of electives:					
Thesis (minimum 6 credits required):					
Thesis: Masters	CGN 6971				
				Total Credits Outside CEE	
				Total Credits Independent Study	
				Total Credits (30 required)	

- ≤ 9 credits outside CEE
- ≤ 6 credits Independent Study
- 6 credits of Thesis

Advisor: Print or Type Name, Signature, and Date

Graduate Program Coordinator: Signature and Date

**MASTER OF SCIENCE CIVIL ENGINEERING (MSCE) WITH A CONCENTRATION IN
WATER RESOURCES (WRS)**

Curriculum Program of Study Form (updated 01/17)

Name:		Term/Year Admitted into Program:	
USF ID #			
Address:			
Phone:			
Email:			
Advisor:			

30 Total Credits of Coursework:

Course Title	Number	Credits	Semester	Outside CEE?	Grade
A minimum of 4 courses (12 credits) from the following:					
Free Surface Flow	CWR 6235	3			
Waves and Beach Protection	CWR 6239	3			
Urban Hydrology	CWR 6305	3			
Coastal and Estuary Modeling	CWR 6534	3			
Hydrologic Models	CWR 6535	3			
Advanced Hydrologic Models	CWR 6538	3			
Coastal Waves and Structures	CWR 6820	3			
Vadose Zone Hydrology	CGN 6933	3			
Groundwater Hydraulics	CGN 6933	3			
Advanced Computational Fluid Mechanics	CGN 6933	3			
Advanced Numerical Methods	CGN 6933	3			
Global Sustainability	CGN 6933	3			
Ecological Engineering	CGN 6933	3			
12 credits of electives:					
Thesis (minimum 6 credits required):					
Thesis: Masters	CGN 6971				
				Total Credits Outside CEE	
				Total Credits Independent Study	
				Total Credits (30 required)	

- ≤ 9 credits outside CEE
- ≤ 6 credits Independent Study
- 6 credits of Thesis

Advisor: Print or Type Name, Signature, and Date

Graduate Program Coordinator: Signature and Date