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 for students with an undergraduate degree in Engineering. 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 GEOTECHNICAL ENGINEERING (GTL)

Curriculum Program of Study Form (updated 02/14)

Name:		**Term/Year Admitted into Program:**	
USF ID #			
Address:			
Phone:			
Email:			
Advisor:			
☐ **Concentration in Engineering for Development*** ***Requirements: ☐ Sus Dev Eng ☐Applied Anthropology ☐Global Public Health ☐Peace Corps Services**			

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			
9 additional credits of coursework in Geotechnical or related areas:					
9 credits of electives:					
Thesis (minimum 6 credits required):					
Thesis: Masters	CGN 6971				

Total Credits Outside CEE	
Total Credits at 4000 Level	
Total Credits Independent Study	
Total Credits (30 required)	

- ≤ 9 courses outside CEE
- ≤ 6 credits of 4000 level
- ≤ 6 credits independent study
- 6 credits of thesis

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Advisor: Print or Type Name, Signature, and Date

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Graduate Program Coordinator: Signature and Date

MASTER OF SCIENCE CIVIL ENGINEERING (MSCE) WITH A CONCENTRATION IN MATERIALS ENGINEERING (MTL)

Curriculum Program of Study Form (updated 02/14)

Name:		**Term/Year Admitted into Program:**	
USF ID #			
Address:			
Phone:			
Email:			
Advisor:			
☐ **Concentration in Engineering for Development*** ***Requirements: ☐ Sus Dev Eng ☐Applied Anthropology ☐Global Public Health ☐Peace Corps Services**			

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	CGN 6933	3			
Corrosion Control	EMA 5326	3			
Characterization of Materials	EMA 6510	3			
9 Additional credits in Materials Engineering or related areas:					
9 credits of electives:					
Thesis (minimum 6 credits required):					
Thesis: Masters	CGN 6971				

Total Credits Outside CEE	
Total Credits at 4000 Level	
Total Credits Independent Study	
Total Credits (30 required)	

- ≤ 9 courses outside CEE
- ≤ 6 credits of 4000 level
- ≤ 6 credits independent study
- 6 credits of thesis

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Advisor: Print or Type Name, Signature, and Date

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Graduate Program Coordinator: Signature and Date

MASTER OF SCIENCE CIVIL ENGINEERING (MSCE) WITH NO CONCENTRATION

Curriculum Program of Study Form (updated 02/14)

Name:		**Term/Year Admitted into Program:**	
USF ID #			
Address:			
Phone:			
Email:			
Advisor:			
☐ **Concentration in Engineering for Development*** ***Requirements:** ☐ **Sus Dev Eng** ☐**Applied Anthropology** ☐**Global Public Health** ☐**Peace Corps Services**			

30 Total Credits of Coursework:

Course Title	Number	Credits	*Semester*	*Outside CEE?*	*Grade*
Thesis (minimum 6 credits required):					
Thesis: Masters	CGN 6971				

Total Credits Outside CEE	
Total Credits at 4000 Level	
Total Credits Independent Study	
Total Credits (30 required)	

- ≤ 9 credits outside CEE
- ≤ 6 credits of 4000 level
- ≤ 6 credits independent study
- 6 credits of thesis

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Advisor: Print or Type Name, Signature, and Date

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Graduate Program Coordinator: Signature and Date

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

Curriculum Program of Study Form (updated 02/14)

Name:		**Term/Year Admitted into Program:**	
USF ID #			
Address:			
Phone:			
Email:			
Advisor:			
☐ **Concentration in Engineering for Development*** ***Requirements:** ☐ **Sus Dev Eng** ☐**Applied Anthropology** ☐**Global Public Health** ☐**Peace Corps Services**			

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			
Advanced Structural Mechanics	CGN 6933	3			
Advanced Structural Analysis	CGN 6933	3			
Structural Dynamics	CES 5209	3			
9 additional credits of coursework in Structural Engineering or related areas:					
9 credits of electives:					
Thesis (minimum 6 credits required):					
Thesis: Masters	CGN 6971				

Total Credits Outside CEE	
Total Credits at 4000 Level	
Total Credits Independent Study	
Total Credits (30 required)	

- ≤ 9 courses outside CEE
- ≤ 6 credits of 4000 level
- ≤ 6 credits independent study
- 6 credits of thesis

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Advisor: Print or Type Name, Signature, and Date

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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 02/14)

Name:		**Term/Year Admitted into Program:**	
USF ID #			
Address:			
Phone:			
Email:			
Advisor:			
☐ **Concentration in Engineering for Development*** ***Requirements: ☐ Sus Dev Eng ☐Applied Anthropology ☐Global Public Health ☐Peace Corps Services**			

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	TTE 6507	3			
6 additional credits of coursework in Transportation Engineering or related areas:					
9 credits of electives:					
Thesis (minimum 6 credits required):					
Thesis: Masters	CGN 6971				

Total Credits Outside CEE	
Total Credits at 4000 Level	
Total Credits Independent Study	
Total Credits (30 required)	

- ≤ 9 courses outside CEE
- ≤ 6 credits of 4000 level
- ≤ 6 credits independent study
- 6 credits of thesis

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Advisor: Print or Type Name, Signature, and Date

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Graduate Program Coordinator: Signature and Date

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

Curriculum Program of Study Form (updated 02/14)

Name:		**Term/Year Admitted into Program:**	
USF ID #			
Address:			
Phone:			
Email:			
Advisor:			
☐ **Concentration in Engineering for Development*** ***Requirements: ☐ Sus Dev Eng ☐Applied Anthropology ☐Global Public Health ☐Peace Corps Services**			

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			
Vadose Zone Hydraulics	CWR 6933	3			
Groundwater Hydraulics	CGN 6933	3			
Advanced Computational Fluid Mechanics	CGN 6933	3			
Numerical Modeling of Hydrogeologic Systems	GLY 6836	3			
Advanced Hydrogeology	GLY 6827C	3			
Coastal Waves and Structures	CWR 6820	3			
Advanced Hydrologic Models	CWR 6538	3			
3 additional credits of coursework in Water Resources Engineering or related areas:					
9 credits of electives:					
Thesis (minimum 6 credits required):					
Thesis: Masters	CGN 6971				

Total Credits Outside CEE	
Total Credits at 4000 Level	
Total Credits Independent Study	
Total Credits (30 required)	

- ≤ 3 courses outside CEE
- ≤ 6 credits of 4000 level
- ≤ 6 credits independent study
- 6 credits of thesis

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Advisor: Print or Type Name, Signature, and Date

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Graduate Program Coordinator: Signature and Date