

## Department of Civil and Environmental, Graduate Course Offerings

Course	Number	2009 Fall	2010 Spr	2010 Sum	2010 Fall	2011 Spr	2011 Sum	2011 Fall	2012 Spr	2012 Sum	2012 Fall	2013 Spr	2013 Sum
<b>Structural Engineering</b>													
Prestress Concrete	CES 5715C		*			*			*			*	
Design Structures to Resist Natural Hazards	CES 6586	*			*			*			*		
Advanced Steel Design	CES 6609		*						*				
Advanced Concrete Design	CES 6706	*			*			*			*		
Corrosion Control	EMA 5326				*						*		
Design of Masonary Structures	CGN 6933					*						*	
Rehab and Restoration of Structures	CGN 6933		*						*				
Applied Finite Element Method	CGN 6933	*						*					
<b>Geotechnical Engineering</b>													
Foundation Engineering	CEG 5115					*						*	
Soil Dynamics	CEG 6065	*						*					
Seepage and Subsurface Drainage	CEG 6415		*						*				
<b>Engineering Mechanics</b>													
Continuum Mechanics	CGN 6933		*						*				
Advanced Computational Mechanics I	CGN 6933				*						*		
Advanced Computational Mechanics II	CGN 6933					*						*	
<b>Materials</b>													
Electrical/Chemical Processes	CGN 6933					*						*	
Structural Life Prediction	CGN 6933	*						*					
Material Infrastructure Durability	CGN 6933		*						*				
<b>Environmental Engineering</b>													
Air Pollution Control	ENV 5103	*			*			*			*		
Physical & Chemical Principles in Envir Eng	ENV 6002	*			*			*			*		
Advanced Physical / Chemical Processes	ENV 6519		*			*			*			*	
Aquatic Chemistry	ENV 6666		*			*			*			*	
Environmental Biotechnology	ENV 6667		*			*			*			*	
Green Infrastructures for Sustainable Communities	CGN 6933		*			*			*			*	
Biological Principles of Environmental Engineering	CGN 6933	*			*			*			*		
Sustainability Concepts and Methods	CGN 6933		*			*			*			*	
Research Colloquium	CGN 6933	*	*		*	*		*	*		*	*	
<b>Water Resource Engineering</b>													
Free Surface Flow	CWR 6235					*						*	
Coastal and Estuary Modeling	CWR 6534	*						*					
Advanced Hydrologic Models	CWR 6538				*						*		
Vadose Zone Hydrology	CGN 6933	*						*					
Groundwater Hydraulics	CGN 6933				*						*		
Hydrodynamic Model	CGN 6933		*						*				
<b>Transportation Engineering</b>													
Traffic Systems Engineering	TTE 5205	*			*			*			*		
Trans Planning and Economics	TTE 5501	*			*			*			*		
Intelligent Transportation Systems	TTE 6270	*						*					
Transportation Safety	TTE 6315		*			*			*			*	
Discrete Choice Models of Behavior	TTE 6505	*						*					
Travel Demand Modeling	TTE 6507				*								
Public Transportation	TTE 6651				*						*		
Transportation and Land Use	TTE 6655	*						*					
Pavement Design	TTE 6835				*						*		
Pavement Management Systems	TTE 6837					*						*	
Graduate Transportation Seminar	TTE 6930	*	*		*	*		*	*		*	*	
Advanced Geometric Design of Highways	CGN 6933			*						*			
Computer Applications in Traffic Engineering	CGN 6933					*						*	
Access Management	CGN 6933		*						*				
Transportation Network Analysis	CGN 6933					*					*		
Traffic Flow Theory	CGN 6933				*						*		
Aviation Transportation	CGN 6933								*				
GIS in Transportation	CGN 6933				*								
Transportation Data Collection and Analysis	CGN 6933					*							
<b>Typical Engineering Management Courses</b>													
Total Quality Management (TQM) Concepts	EIN 5174	*			*			*			*		
Principles of Engineering Management	EIN 5182	*	*		*	*		*	*		*	*	
Technology and Finance	EIN 5350		*			*			*			*	
Human Relations	EIN 6108	*	*		*	*		*	*		*	*	
Project Management	EIN 6145			*			*			*			*
Engineering Systems Safety	EIN 6215			*			*			*			*
Operations Research for Engineering Managers	ESI 5306		*			*			*			*	
Linear Programming and Network Optimization	ESI 6491	*			*			*			*		
Master students may take two 4000 level undergraduate courses as part of their program													
The Department of Civil and Environmental Engineering Currently Offers a 9 month Master's program in													
Structural Engineering													
Environmental Engineering													
Transportation Engineering													