

## FLEXIBLE STUDY PLAN

Students can adapt their plan of study to their career goals by choosing from a wide range of courses in five specialization tracks:

- ▶ Construction Engineering & Management
- ▶ Environmental Engineering and Water Resources Management
- ▶ Geotechnical Engineering
- ▶ Structural Engineering
- ▶ Transportation Engineering

The MSCEE curriculum with its research-based thesis component allows students to combine theoretical and applied aspects of civil engineering.

**Be one of only 25%  
of civil engineers with  
a master's degree**

## FACILITIES

The Civil Engineering Department boasts a brand new 12000 ft<sup>2</sup> of lab space equipped with state-of-the-art testing equipment and workstations, and consisting of:

- ▶ Environmental, water, materials, and geotechnical labs
- ▶ A driving simulation lab
- ▶ The largest full-scale structural testing lab in the Middle East



### Beirut Campus

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### Byblos Campus

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NY 10017-2935, United States  
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### Contact Information

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### OFFICE HOURS MONDAY-FRIDAY

Fall & Spring 8:00 a.m. – 4:30 p.m.  
Summer 7:30 a.m. – 2:30 p.m.

<http://soe.lau.edu.lb/ce/>

# MASTER OF SCIENCE IN CIVIL AND ENVIRONMENTAL ENGINEERING

*A flexible program  
for the 21st century engineer*

The MSCEE is intended for students with an undergraduate degree who wish to deepen their knowledge in one of the technical areas of civil engineering. The program is also essential for professional engineers seeking further training.

## ADMISSION REQUIREMENTS

Applicants are expected to meet the following criteria:

- ▶ A bachelor's degree in engineering
- ▶ A minimum cumulative GPA of 2.75
- ▶ Official GRE scores

## GRADUATION REQUIREMENTS

- ▶ Completion of 24 credits of graduate coursework\*
- ▶ Completion of a 6-credit research-based thesis
- ▶ A cumulative GPA of 3.0
- ▶ A minimum of one year residency

\*For holders of a BE degree in Civil Engineering, up to 18 credits of their graduate-level coursework can be transferred to the MSCEE provided they have a minimum grade of B.

***The MSCEE will not just  
add to your knowledge  
through a specialization;  
it will also increase  
your salary***

**Stand out  
from the crowd  
and improve your**

→ **EMPLOYABILITY  
and  
CAREER  
COMPETITIVENESS**

## EMPLOYMENT OUTLOOK

Our students graduate with the necessary skillset to tackle emerging issues in engineering and science, and to adapt to a changing profession.

Outstanding graduates of our program have been recruited by international engineering and consulting firms, and admitted to top-ranked PhD programs in the US.



## AVAILABLE FUNDING OPPORTUNITIES

The department has several schemes in place for funding students in the MSCEE program:

- ▶ A research assistantship (RA) for 4 students includes 100% tuition waiver and stipend
- ▶ A graduate assistantship (GA) ranging from 50% to 100% tuition waiver for all admitted students
- ▶ Funding support through part-time teaching of undergraduate laboratory courses
- ▶ Funding support through faculty's ongoing research projects and grants

## FACULTY

Courses are taught by full-time faculty members with PhDs from world-renowned universities in the US and Canada who possess a range of academic and professional experience, and by part-time instructors who are experts in their fields.

Continuously engaged in cutting-edge research, our faculty has published over 250 refereed journal and conference articles, and received research grants from local and international funding agencies.

### CONSTRUCTION ENGINEERING & MANAGEMENT

CIE 766	Highway Design and Management
CIE 780	Construction Decisions under Uncertainty
CIE 781	Construction Estimating I
CIE 782	Infrastructure Management
CIE 783	Sustainable Construction
CIE 784	Quality Management Systems
CIE 789	Cost Engineering & Control
CIE 790	Construction Methods
CIE 793	Construction Safety

### ENVIRONMENTAL & WATER RESOURCES

CIE 712	Design of Hydraulics Structures
CIE 720	Solid Waste Management (3 cr.)
CIE 721	Hydrology (3 cr.)
CIE 722	Environmental Impact Assessment
CIE 723	Water Resources: Planning & Management
CIE 724	Air Quality Management
CIE 725	Geo-Environmental Engineering
CIE 727	Environmental Microbiology
CIE 728	Fate & Transport of Pollutants in the Environment
CIE 729	Hydrogeology
CIE 730	Irrigation & Drainage
CIE 731	Urban Water Resources
CIE 732	Advanced Environmental Engineering
CIE 733	Groundwater Engineering
CIE 734	Computational Hydraulics

### GEOTECHNICAL ENGINEERING

CIE 701	Finite Element Methods
CIE 704	Case Histories in Structural & Geotechnical Engineering
CIE 711	Pavement Design
CIE 725	Geo-Environmental Engineering
CIE 729	Hydrogeology
CIE 733	Groundwater Engineering
CIE 740	Advanced Geotechnical Engineering
CIE 744	Geotechnical Aspects of Earthquake Engineering
CIE 785	Risk & Natural Hazard Management
CIE 788	GIS & Remote Sensing

### STRUCTURAL ENGINEERING

CIE 701	Finite Element Methods
CIE 702	Concrete Building Structures
CIE 704	Case Histories in Structural & Geotechnical Engineering
CIE 706	Structural Dynamics
CIE 707	Seismic Design of Structures
CIE 708	Applied Elasticity
CIE 709	Concrete Foundation Structures
CIE 710	Pre-Stressed Concrete Design
CIE 712	Design of Hydraulics Structures
CIE 713	Reinforced Masonry Design
CIE 714	Advanced Structural Analysis for Gravity & Lateral Loads
CIE 716	Advanced Steel: Design & Behavior
CIE 719	Advanced Reinforced Concrete Behavior

### TRANSPORTATION ENGINEERING

CIE 711	Pavement Design
CIE 721	Hydrology
CIE 761	Traffic Engineering
CIE 762	Airport Planning and Design
CIE 763	Transportation Planning and Land Use
CIE 764	Mass Transit Systems
CIE 766	Highway Design and Management
CIE 788	GIS & Remote Sensing

Available Courses

Available Courses

