Department of Civil and Environmental Engineering

Chairperson Adnan Masri

Professors Adel El Kordi, Yehia Temsah, Oussama Baalbaki, Jamal Khatib Mohamad Soliman

Associate Professors Hassan Ghanem, Lina Jaber, Mohamad Dandachy

Assistant Professors Wael Slika, Nour Wehbi, Rouba Joumblat, Sandy Chaaban, Youmn Al-Rawi, Nabil Younis

Part-time Lecturers Maher Kahil

Master Degree in Civil and Environmental Engineering

The CEE Department offers three tracks for the master's degree; Public Works, Structural & Geotechnical Engineering, and Water Resources & Environmental Engineering.

Study Plan:

Elective Courses – Public Works

Courses			**Crs.**
CVLE	601	Advanced Transportation Planning and Traffic Engineering	3
CVLE	607	Alignment and Geometric Design for Highways and Airports	3
CVLE	610	Railways Engineering	3
CVLE	623	Transportation Facilities	3
CVLE	625	Sustainable Transportation in Urban Areas	3
CVLE	633	Asphalt Binders and Mixtures for Pavements	3
CVLE	639	Advanced Pavement Design and Analysis	3
CVLE	681	Adjustment of Horizontal and Vertical Networks	3
CVLE	682	Higher Geodesy	3
CVLE	685	Surveying By Global Positioning System (GPS)	3

Elective Courses – Structural and Geotechnical Engineering

Courses			**Crs.**
CVLE	603	Advanced Structural Systems	3
CVLE	604	Finite Element Method	3
CVLE	628	Computer Analysis of Structures	3
CVLE	629	Earthquake Engineering	3
CVLE	632	Soil Improvement	3
CVLE	634	Soil Hydraulics	3
CVLE	635	Environmental Geotechnics	3
CVLE	636	Prestressed Concrete Structures	3
CVLE	637	Concrete Techniques and Repair	3
CVLE	638	Stability and Plastic Analysis of Structures	3

CVLE	640	Construction Management	3

Elective Courses – Water Resources and Environmental Engineering

Courses			**Crs.**
CVLE	602	Water Resources Engineering and EIA	3
CVLE	655	Surface and Ground Water Pollution	3
CVLE	656	Hydraulic & Structural Design of Pipelines & Pipe Networks	3
CVLE	659	River Engineering	3
CVLE	663	Surface Water Hydrology	3
CVLE	664	Ground Water Hydrology	3
CVLE	670	Sewer Systems for Mountainous Areas	3
CVLE	671	Storm Water Collection for Mountainous Areas	3
CVLE	672	Solid Wastes Management	3
CVLE	676	Drinking Water Supply	3
CVLE	677	Environmental Engineering	3

The highlighted courses in the Structures & Geotechnical Engineering track are also offered for both the Public Works and Water Resources & Environmental Engineering tracks.

PhD Degree in Civil and Environmental Engineering

The CEE Department offers three tracks for the PhD Degree; Public Works, Structural & Geotechnical Engineering, and Water Resources & Environmental Engineering.

Study Plan

Elective Courses – Public Works

Courses			**Crs.**
CVLE	701	Transport Modeling	3
CVLE	702	Tunnel Engineering	3
CVLE	703	Advanced Railway Control Systems	3
CVLE	704	Underground Rail Transport Systems	3
CVLE	705	Optimization and Simulation of Railway Systems	3
CVLE	706	Railway Planning for High Speed Systems	3
CVLE	707	Traffic Theory	3
CVLE	708	Intelligent Traffic System ITS	3
CVLE	709	Transportation Logistics	3
CVLE	710	Evaluation of Transport Projects	3
CVLE	711	Air Transport Planning	3
CVLE	741	Transportation Economy	3
CVLE	742	Highway Maintenance	3
CVLE	743	Multi-Modal Transport Systems	3
CVLE	744	Urban Railways	3

Elective Courses – Structural and Geotechnical Engineering

Courses			**Crs.**
CVLE	712	Pre-stressed Concrete Structures	3
CVLE	713	Nonlinear Analysis of Structures	3
CVLE	714	Analysis of Composite Design	3
CVLE	715	Analysis of Space and Non-Conventional Structures	3
CVLE	716	Advanced Soil Mechanics	3
CVLE	717	Numerical Modeling of Concrete Structures	3
CVLE	718	Dynamics and Seismic of Structures	3
CVLE	719	Behavior and Stability of Metal Structures	3
CVLE	720	Advanced Finite Element Method	3
CVLE	721	Mathematical Programming (a)	3
CVLE	722	Mathematical Programming (b)	3
CVLE	723	Vibration Control	3
CVLE	724	Conditions of Contracts for Works of Civil Eng. Constr. (FIDIC)	3
CVLE	751	Rehabilitation of Structures	3
CVLE	752	Sustainable Structures	3

Elective Courses – Water Resources and Environmental Engineering

Courses			**Crs.**
CVLE	725	Water Logging and Drainage Systems	3
CVLE	726	Environmental Impact Assessment of Irrigation and Drainage Projects	3
CVLE	727	Wave Hydraulics and Coastal Engineering	3
CVLE	728	Water Purification Engineering	3
CVLE	729	Wastewater Reuse and Waste Recycle	3
CVLE	730	Industrial Wastewater Treatment	3
CVLE	731	Surface Water Pollution Control	3
CVLE	732	EIA for Water and Wastewater Projects	3
CVLE	733	Design of Canal Hydraulic Structures	3
CVLE	734	Modern Design of Irrigation Structures	3
CVLE	735	Watershed Modeling System	3
CVLE	736	Application in Computational Hydraulics	3
CVLE	737	Rural Sanitation	3

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