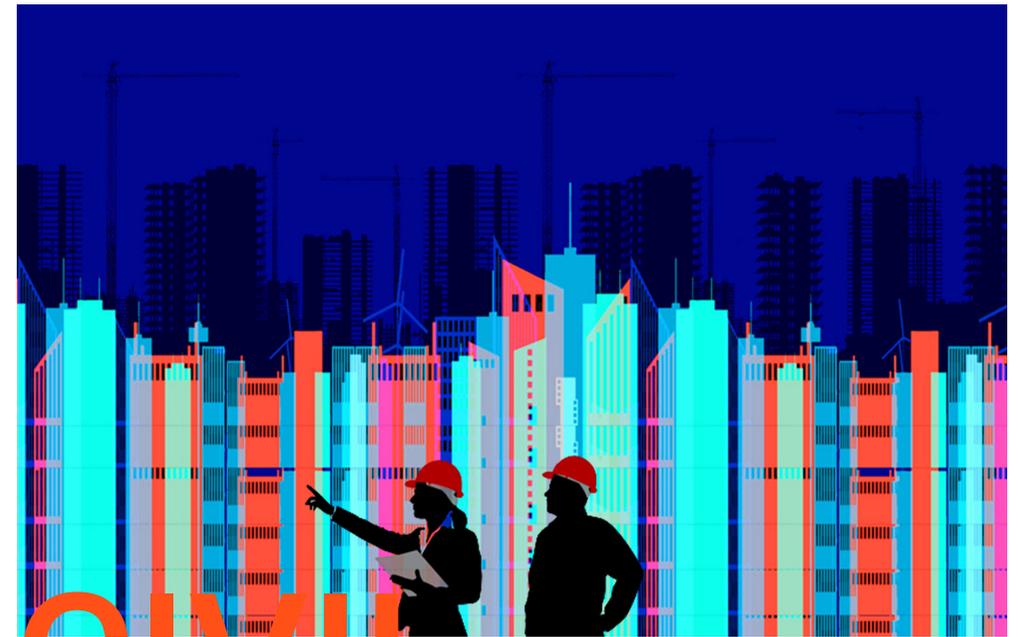




SPECIALIST CERTIFICATIONS

- Structures
- Collaborative Project Management
- Virtual Design and Construction
- Transportation and Geotechnical Engineering

SCHOOL OF ENGINEERING



CIVIL ENGINEERING

The Civil Engineering Undergraduate Program advances the construction sector by providing students with a strong education in design and construction grounded in technical expertise. Students will also develop skills to lead project teams, manage processes and costs, and create environmentally responsible projects that deliver innovative solutions for the global construction industry.

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6	NIVEL 7	LEVEL 8	LEVEL 9	LEVEL 10
LANGUAGE AND COMMUNICATION I 4	LANGUAGE AND COMMUNICATION II 3	CALCULUS II 4	DIFFERENTIAL EQUATIONS * 4	DIGITAL PROGRAMMING 3	BUILDING SYSTEMS 5	FLUID MECHANICS 4	HYDRAULICS 4	HYDROLOGY 4	METAL STRUCTURES 5
PSYCHOLOGICAL PROCESSES 3	APPLIED PHILOSOPHY 3	APPLIED CHEMISTRY 3	CONCRETE TECHNOLOGY 3	STATICS 4	COSTING AND BUDGETING 3	CONSTRUCTION PROJECT MANAGEMENT 4	OPERATION AND MAINTENANCE PROJECT MANAGEMENT 3	RESEARCH SEMINAR I 4	RESEARCH SEMINAR II 4
CIVIC ETHICS 2	FUNDAMENTALS OF ECONOMICS 3	TOPOGRAPHY 3	PHYSICS II * 4	CONSTRUCTION TECHNOLOGY II 4	MATERIALS TECHNOLOGY 3	NUMERICAL METHODS 3	EARTHQUAKE-RESISTANT ENGINEERING 4	REINFORCED CONCRETE II 3	SUSTAINABLE INFRASTRUCTURES 3
INTRODUCTION TO ENGINEERING 3	INTRODUCTION TO INTERNATIONAL TRADE 3	GRAPHIC ENGINEERING 3	BUILDING INFORMATION MODELING I 4	BUILDING INFORMATION MODELING II 4	RESISTANCE OF MATERIALS 5	STRUCTURAL ANALYSIS I 4	STRATEGIC CONTRACT MANAGEMENT 3	WATER SUPPLY AND SANITATION 3	REAL ESTATE MANAGEMENT AND DEVELOPMENT 3
RESEARCH METHODOLOGIES 3	LINEAR ALGEBRA 3	APPLIED STATISTICS AND PROBABILITY 3	CONSTRUCTION TECHNOLOGY I 4	DYNAMICS 4	ENVIRONMENTAL ENGINEERING 3	TRANSPORTATION ENGINEERING I 3	REINFORCED CONCRETE I 4	BRIDGES 3	MASONRY 3
PRECALCULUS 5	CALCULUS I 5	PHYSICS I * 4	APPLIED GEOLOGY 4	SOIL MECHANICS I 4	SOIL MECHANICS II 4	FUNDAMENTALS OF URBAN AND REGIONAL PLANNING 3	QUALITY MANAGEMENT 3	OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT 3	PROJECT RISK MANAGEMENT 3
MANDATORY CREDITS 20	MANDATORY CREDITS 20	APPLIED ARTIFICIAL INTELLIGENCE * 3	MANDATORY CREDITS 23	MANDATORY CREDITS 23	MANDATORY CREDITS 23	ETHICS, LEADERSHIP, AND SOCIAL RESPONSIBILITY 2	VIRTUAL DESIGN AND CONSTRUCTION 3	PRESTRESSED CONCRETE 3	TRANSPORTATION ENGINEERING II 3
		MANDATORY CREDITS 23				MANDATORY CREDITS 23	STRUCTURAL ANALYSIS II 3	TUNNELS 3	WATER RESOURCES ENGINEERING 3
							GEOMATICS 3	DISASTER RISK MANAGEMENT 3	PAVEMENTS 3
							MANDATORY CREDITS 18	GEOTECHNICAL ENGINEERING FOR TRANSPORTATION INFRASTRUCTURE 3	OCCUPATIONAL SAFETY, HEALTH, AND ORGANIZATIONAL WELL-BEING * 3
								CONSTRUCTION PRODUCTIVITY 3	MANDATORY CREDITS 9
								MANDATORY CREDITS 8	

Mandatory subjects of the General Studies Program



Mandatory subjects of the Civil Engineering Undergraduate Program



Elective subjects of the Civil Engineering Undergraduate Program



Subjects in common among the undergraduate programs of the School **



**The School of Engineering comprises the Civil Engineering, Industrial Engineering, Systems Engineering, Mechatronics Engineering, and Environmental Engineering undergraduate programs.

CREDIT SUMMARY

	CREDITS	TYPE OF CREDIT
General Studies	40	Mandatory
School	150	Mandatory
Total Elective Subjects	15	Elective
Total Credits	205	

Subject to curricular change.