CIVIL ENGINEERING

The four-year course of study leading to the degree of BSc Engineering (Hons) in Civil Engineering is carefully designed to maintain a judicious balance between theoretical foundations and practical applications. Students will be exposed to a rigorous academic programme and at the same time they will be provided ample opportunities to gain hands on experience in well-equipped laboratories and during exciting field excursions. They will also be able to acquire valuable real life engineering experience through industrial internships during the second and the third years of study.

CAREER OPPORTUNITIES

- Civil and/or Environmental Engineering Consulting Firms
- Construction Engineering Organizations in Private and Public Sectors
- Specialist Subcontractors
- Provincial Engineering Organizations
- Municipalities and Local Government Organizations
- Civil engineering companies with computer/IT applications
- Research and Development Institutes
- Government and Regulatory Authorities
- Building Information Modeling Organisations
- Remote Sensing, Earth Observation & GIS organisations

CIVIL ENGINEERING IS A :

• Is the engineering discipline that deals with the sustainable design and construction of the built environment that includes infrastructure such as buildings, roads, tunnels, reservoirs, harbours, etc.

• Also studies the natural environment at regional and global scales

• Is a discipline that has a good blend of fundamental knowledge and applications

• Enhances creative, innovative, and team working skills

• Degree at SLIIT is a rigorous academic program with opportunities to gain hands-on experience in well-equipped laboratories and through exciting field and desk assignments

• Students undergo six months of compulsory industrial training at the end of their 2nd and 3rd years respectively, split into two periods of three months each

STUDENTS MAY ALSO USE THE FINAL YEAR TO PURSUE SPECIALISED OPTIONS IN:

- Structural Engineering
- Transportation Engineering
- Geotechnical Engineering
- Water & Environmental Engineering
- Digital tools and IT
- Construction Engineering

ENTRY REQUIREMENTS

Minimum of two “C” passes and one “S” pass in GCE Advanced Level (Local) in the Physical Science Stream (Combined Mathematics, Physics and Chemistry) in one and the same sitting and a pass at the Aptitude test conducted by SLIIT OR Minimum of two “B” passes and one “C” pass in GCE Advanced Level (Cambridge or Edexcel) covering Combined Mathematics, Physics and Chemistry in one and the same sitting and a pass at the Aptitude test conducted by SLIIT

YEAR ONE

SEMESTER 01

CE1020	Statics and Hydrostatics	03
ME1050	Introduction to Engineering Design and Communication	04
EC1022	Electrical Systems	03
MA1112	Algebra	04
EL1203	English Language Skills I	03
CE1913	Introduction to Sustainable Engineering	02

SEMESTER 02

ME1031	Engineering Skills Development	03
ME1060	Dynamics	03
MT1011	Engineering Materials	04
MA1122	Calculus	04
EC1450	Fundamentals of Programming	03
EL1213	English Language Skills II	02

YEAR TWO

SEMESTER 01

CE2011	Structural Analysis I	04
CE2712	Fluid Mechanics	04
CE2021	Properties and Mechanics of Materials	03
CE2211	Civil Engineering Methods	04
MA2302	Engineering Mathematics III	03

SEMESTER 02

CE2813	Geotechnical Engineering I	03
CE2032	Structural Design I	04
CE2043	Structural Analysis II	04
CE2051	Advanced Mechanics of Materials	03
ME2720	Introduction to Thermal Processes	02
	Humanities I	02
CE2913	Industrial Training I	03

YEAR THREE

SEMESTER 01

CE3012	Structural Analysis III	03
CE3712	Pumps & Open Channel Flow	03
CE3022	Structural Design II	04
CE3813	Geotechnical Engineering II	03
CE3211	Civil Engineering Project and Cost Management	03
	Humanities II	02

SEMESTER 02

CE3611	Environmental Engineering	03
CE3824	Geotechnical Engineering III	03
CE3430	Transportation Engineering	02
CE3420	Highway Engineering	02
CE3231	Projection Formulation	03
CE3222	Construction Technology and Methods	03
CE3922	Civil Engineering Seminar	
CE3913	Industrial Training II	
CE2940	Civil Engineering Surveying Camp	

YEAR FOUR

SEMESTER 01

CE4212	Comprehensive Design Project I	03
CE4221	Civil Engineering Practice, Quality and Legislation	03
CE4912	Civil Engineering Project I	03
CE4741	Engineering Hydrology	03
2 Elective Modules from the following		
CE4813	Advanced Foundation Engineering	03
CE4413	Traffic Engineering and Planning	03
CE4711	Water Systems & Hydraulic Structures	03
CE4011	Finite Element Methods in Structural Engineering	03
CE4041	Structural Design III	03
CE4611	Environmental Engineering Design	03
CE4271	Remote Sensing and Geographic Information Systems	03
CE4950	Applied Machine Learning and Artifical Intelligenece in Civil Engineering	03

SEMESTER 02

CE4922	Sustainble Development in Civil Engineering	03
CE4241	Comprehensive Design Project II	03
CE4932	Civil Engineering Project II	03
CE4280	Construction Project Management	02
2 Elective Modules from the following		
CE4830	Slope Stability and Design of Earth Retaining Systems	03
CE4424	Pavement Design	03
CE4732	Advanced Hydraulics & Hydrology	03
CE4022	Structural Dynamics and High Rise Buildings	03
CE4032	Advanced Concrete Design	03
CE4721	Remote Sensing and Geographic Information Systems	03
CE4940	Sensors for Civil Engineering Applications	03
CE4950	Applied machine learning and Artificial Intelligence in Civil Engineering	03

* Electives to be chosen with the prior approval of the Acadamic Department