DATA SCIENCE

The meticulous curriculum focuses on the fundamentals of computer science, statistics, and applied mathematics, while incorporating real-world examples. Graduates are prepared to succeed in specialized jobs involving everything from the data pipeline and storage, to statistical analysis discovering new insights with optimized decision making.

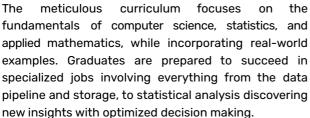## CAREER OPPORTUNITIES

- Data Engineers
- Data Scientists
- Big Data Engineers
- Data Analysts
- DevOps Engineers
- Database Administrators

- Business Intelligence Engineers
- Software Engineers
- Big Data Application Developers
- Data Architects
- Data Science Specialists
- Machine Learning Engineers

ENTRY REQUIREMENTS

Passes in three subjects (in any subject stream) at the G.C.E. Advanced Level Examination (Sri Lanka / London) in one and the same sitting, and a pass at the Aptitude Test conducted by SLIIT. To progress from second year semester one to second year semester two of the program, a student must pass all the modules up to the second year semester 01 and maintain a minimum CGPA of 2.7.

YEAR ONE
SEMESTER 01

IT1120	Introduction to Programming	04
IE1030	Data Communication Networks	04
IT1130	Mathematics for Computing	04
IT1140	Fundamentals of Computing	04

SEMESTER 02

IT1160	Discrete Mathematics	04
IT1170	Data Structures and Algorithms	04
SE1010	Software Engineering	04
IT1150	Technical Writing	04

YEAR TWO
SEMESTER 01

IT2120	Probability and Statistics	04
IT2010	Object Oriented Programming	04
IT2130	Operating Systems & System Administration	04
IT2140	Database Design and Development	04

SEMESTER 02

IT2011	Artificial Intelligence & Machine Learning	04
IT2150	IT Project	04
SE2020	Web and Mobile Technologies	04
IT2160	Professional Skills	04

YEAR THREE
SEMESTER 01

IT3120	Industrial Economics & Management	04
IT3081	Statistical Modelling	04
IT3091	Machine Learning	04
IT3101	Data Warehousing and Business Intelligence	04

SEMESTER 02

IT3190	Industry Training	08
IT3111	Deep Learning	04
IT3121	Cloud Data Analytics	04
IT3160	Research Methods	04

YEAR FOUR
SEMESTER 01

IT4200	Research Project - I	04
IT4051	Modern Topics in Data Science	04
IT4061	Natural Language Processing	04
IT4081	Software Engineering Concepts	04
IT4091	Optimization Methods	04

SEMESTER 02

IT4200	Research Project - II	08
IT4071	Data Governance, Privacy and Security	04
IT4101	Database Implementation and Administration	04
IT4111	MLOps for Data Analytics	04