

B.Sc. / B.Eng. (Hons) Software Engineering

This award aims to produce dynamic graduates who can develop software solutions to a wide range of real-world problems. Software Engineering is all about creating software – computer programs. It involves learning and using programming languages such as Java and C++, but that's just the beginning – it's also about deciding what a software system needs to do to solve a real-world problem, designing a solution that fulfils these needs, developing, testing and maintaining it.

Admission Requirements

The qualifications required for admission are 2 Passes at GCE (Advanced Level) Examination and 5 Passes inclusive of 2 Credit Passes for English and Mathematics at GCE (Ordinary Level) Examination, or successful completion of the APIIT Degree Foundation Programme. Those with additional qualifications may receive advanced entry to higher levels of the programme.

Programme Structure

A diverse range of teaching strategies including lectures, tutorials, case studies, portfolio of practical exercises, continuous assessment, and group and individual project as well as seminars given by external speakers is employed to achieve the essential learning outcomes. These are intended to maximize a graduate's ability to solve professional problems within Software Engineering, including programming, object oriented system development, principles and practices of software production.

Students undertake a software engineering project in their final year which enables them to extend their knowledge and skills significantly beyond the learning outcomes of the modules previously studied. Students are required to carry out detailed investigation in to software engineering methodologies, tools and techniques that are used in the development and implementation of high quality software systems. You will be assigned a supervisor to guide and support you in order to successfully complete the project.

Level C:

The Level C is a one-year full-time programme, and comprises the following modules:

- Introduction to Software Development
- Object Oriented and Event Driven Programming
- Hardware & Software System & Graphics
- System Modelling
- Maths & Statistics for Computing
- Algorithms and Data structures in C
- Introduction to Operating Systems
- Introduction to Networking with LAN & WAN

Level I:

The Level I is a one-year full-time programme, and comprises the following modules:

- Professional & Enterprise Development
- Principles & Practices of Software Production
- Database Systems
- Web Programming with Servlets and JSP
- Further Object-Oriented Programming
- Object Oriented Systems Development
- Further Programming Concepts in C++
- Concurrent Programming in C#

Level H:

The Level H is a nine-month full-time programme, and comprises the following modules:

- Algorithmics
- Project Management
- Design Patterns
- Building Web Applications
- Enterprise Applications with Java Enterprise Edition
- Software Engineering Project
- **Information Systems Engineering in Industry – (Additional core for B.Eng.)**

Career Opportunities

Software Engineers can apply their skills in all areas of the computing industry - from business systems to computer games to embedded systems. Typical job titles of recent graduates include Software Engineer, Systems Developer and Application Programmer.

*The above syllabus details are subjected to be updated.



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