

Diploma in System Design & Computer Systems

The Diploma in System Design is the next level after Certificate in Computer Fundamentals. The course analyse four subjects; System Design (how computer systems are implemented in organisations), Network Fundamentals, Business Computer Systems, Pascal Programming and Operating System Management.

Why does the course exists – This course take candidates to the next intellectual level. The objective of this course is to study current strategies and techniques of systems design and programming. Candidates will learn how to use these techniques to analyse and model information system requirements, propose information systems solutions and build an information system that meets an organisation's needs.

How it fits into the larger programme – On completion of the Diploma level, candidates can enhance themselves by pursuing the Advanced Diploma in Computer Science.

For whom it was designed – Candidates who complete the Certificate in Computer Fundamentals or holders of equivalent qualifications interested in pursuing Computer Science at Diploma level.

How it will benefit candidates – The Diploma in System Design enable candidates write improved computer programs and implement the system life cycle. The system life cycle is one of the most important models in computing. The Diploma level also prepare candidates for the next higher level.

Subjects:

- System Analysis & Design
- Business Computer Systems
- Network Fundamentals
- Pascal Programming
- Operating System Management

System Analysis & Design - Systems are created to solve problems. One can think of the systems approach as an organised way of dealing with a problem. In this dynamic world, the subject System Analysis and Design, mainly deals with the software development activities.

Business Computer Systems - In the modern workplace, it is imperative that technology works both effectively and reliably. Computer and information systems managers play a vital role in the implementation of technology within their organisations. Computer and information systems managers plan, coordinate, and direct research and facilitate the computer-related activities of firms. They help determine both technical and business goals in consultation with top management and make detailed plans for the accomplishment of these goals. This requires a strong understanding of both technology and business practices.

Networking Fundamentals - networking essentials is an overview of networking terminology, different network architectures, and focus on the physical components of computer networks, including server and client computers, cabling and connectors, network file sharing, area networks

and network types, basic network topologies, network routers, network protocol, Transmission Control Protocol / Internet Protocol (TCP/IP), firewalls, Ethernet and network addresses.

Pascal Programming – Pascal is an ideal language for preparing for major programming platforms like C, C++, VB and Java. Pascal is an influential imperative and procedural programming language, intended to encourage good programming practices using structured programming and data structuring. Pascal is a purely procedural programming language that was developed in 1971 to teach candidates the basic ideas of programming. Named after Blaise Pascal, the philosopher mathematician, it belongs to the ALGOL family of programming languages.

Operating System Management – Computer Science is about research. Operating System Management looks at the behind the scenes of how operating systems work internally. It uses technical terms on operating system technical operations; for example how data is written to disk or read from the disk.