

VICTORIA

C A M P U S



Foundation in Information Technology

Course Book

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Foundation Programme in Information Technology

Duration: 08 Months

1. Introduction to Information Technology (Code No: ICT1121)

- Basics of Computers and IT
 - Operating Systems and Software Applications
 - Digital Communication and the Internet
 - IT in Business and Society
 - Data Security and Privacy
 - Practical Applications of IT
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2. Programming Fundamentals (Code No: ICT1123)

- Introduction to Programming Concepts
 - Variables & Data Types
 - Control Structures (Conditionals & Loops)
 - Functions and Modular Programming
 - Arrays and Data Structures Basics
 - Debugging and Error Handling
 - Mini Project in Programming
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3. Database Management Systems (Code No: ICT1132)

- Introduction to Databases
 - Data Models and Schemas
 - Entity-Relationship (ER) Diagrams
 - Structured Query Language (SQL) Basics
 - Database Relationships and Normalization
 - Database Design and Implementation
 - Practical Database Project
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4. Networking Essentials (Code No: ICT1142)

- Introduction to Networking
 - Network Devices and Topologies
 - IP Addressing and Subnetting
 - Networking Protocols
 - LAN, WAN, and Internet Basics
 - Network Security Fundamentals
 - Networking Simulation Project
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5. Web Development Basics (Code No: ICT1153)

- Web Design Principles
 - HTML Basics
 - Introduction to CSS
 - Creating Web Forms
 - Basic JavaScript Concepts
 - Developing a Multi-Page Website
 - Final Web Project
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6. Mathematics for IT (Code No: ICT1223)

- Number Systems and Logic
 - Algebra and Functions for IT
 - Probability and Statistics Basics
 - Boolean Algebra and Logic Gates
 - Sets, Relations, and Matrices
 - Applications of Mathematics in Computing
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7. Computer Hardware and Software (Code No: ICT1233)

- Introduction to Computer Hardware Components
- Input, Output, and Storage Devices
- System Software vs. Application Software
- Operating System Fundamentals
- Troubleshooting and Maintenance
- Emerging Hardware Technologies