# Bachelor of Information Technology (Hons) Computer Engineering - UCCT110101

## Course Structure Guide

### Year 1

#### Year 1 Trimester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Type</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANGXXX3</td>
<td>NATIONAL LANGUAGE/OTHER LANGUAGES</td>
<td>Core</td>
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<tr>
<td>MPWE02</td>
<td>MPW ELECTIVE II</td>
<td>Core</td>
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<tr>
<td>UCCD1003</td>
<td>PROGRAMMING CONCEPTS AND DESIGN</td>
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<tr>
<td>UCCE1013</td>
<td>CIRCUIT THEORY</td>
<td>Core</td>
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<tr>
<td>UCCE1023</td>
<td>DIGITAL FUNDAMENTALS</td>
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<tr>
<td>UCCM1113</td>
<td>MATHEMATICS I</td>
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**Total Credit Hours:** 18.0

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#### Year 1 Trimester 2

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<tr>
<td>BCTFE04</td>
<td>COMPULSORY (LIBERAL ARTS ELECTIVES)</td>
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<tr>
<td>UCCE1023</td>
<td>DATA STRUCTURES AND ALGORITHMS</td>
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<tr>
<td>UCCM1123</td>
<td>MATHEMATICS II</td>
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<td>DATA COMMUNICATIONS AND NETWORKS</td>
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**Total Credit Hours:** 18.0

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#### Year 1 Trimester 3

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<tbody>
<tr>
<td>UCCD3031</td>
<td>COMPUTER LAW AND ETHICS</td>
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<td>UCCE2023</td>
<td>DIGITAL SYSTEMS DESIGN</td>
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<td>INTEGRATED CIRCUIT FUNDAMENTALS</td>
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**Total Credit Hours:** 9.0

### Year 2

#### Year 2 Trimester 1

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<td>UCCE2033</td>
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<td>MATHEMATICS II</td>
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**Total Credit Hours:** 6.0

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#### Year 2 Trimester 2

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<td>SIGNS AND SYSTEMS</td>
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<td>UCCE2053</td>
<td>COMPUTER ORGANISATION AND ARCHITECTURE</td>
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**Total Credit Hours:** 6.0

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#### Year 2 Trimester 3

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<td>UCCE3043</td>
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<tr>
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<td>EMBEDDED SYSTEMS DESIGN</td>
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**Total Credit Hours:** 6.0

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**Pre-Requisite Unit(s) for UCCE1043:**

1. UCCE1023 - DIGITAL FUNDAMENTALS
2. USCC10X2 CORE GROUP - Choose 1 Unit(s)
3. USCC1012 - COMMUNICATION SKILLS (ORAL COMMUNICATION)

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**Pre-Requisite Unit(s) for UCCE1023:**

1. UCCD1023 - PROGRAMMING CONCEPTS AND DESIGN
2. UCCM1123 - MATHEMATICS I
TCP/IP
INTERNETWORKING

Total Credit Hours 18.0

Pre-Requisite Unit(s) for UCCM2133
1. UCCM1123 - MATHEMATICS II

Pre-Requisite Unit(s) for UCCN2003
1. UCCN1003 - DATA COMMUNICATIONS AND NETWORKS

Pre-Requisite Unit(s) for UCCE2083
1. UCC2013 - OBJECT-ORIENTED PROGRAMMING

Pre-Requisite Unit(s) for UCCM2123
1. UCCM1123 - MATHEMATICS II

Pre-Requisite Unit(s) for UCCM3123
1. UCCM1123 - MATHEMATICS II

Pre-Requisite Unit(s) for UCCM3134
1. UCCM1123 - OPERATIONS RESEARCH I

Pre-Requisite Unit(s) for UCCN2103
1. UCCD1023 - DATA STRUCTURES AND ALGORITHMS

Pre-Requisite Unit(s) for UCCN3013
1. UCCN2023 - FUNDAMENTALS OF WIRELESS COMMUNICATIONS

Pre-Requisite Unit(s) for UCCN3103
1. UCCN1003 - DATA COMMUNICATIONS AND NETWORKS

Pre-Requisite Unit(s) for UCCE2083
1. UCC2013 - OBJECT-ORIENTED PROGRAMMING

Pre-Requisite Unit(s) for UCCM2123
1. UCCM1123 - MATHEMATICS II

Pre-Requisite Unit(s) for UCCM3123
1. UCCM1123 - MATHEMATICS II

Pre-Requisite Unit(s) for UCCM3134
1. UCCM1123 - OPERATIONS RESEARCH I

Pre-Requisite Unit(s) for UCCN2103
1. UCCD1023 - DATA STRUCTURES AND ALGORITHMS

Pre-Requisite Unit(s) for UCCN3013
1. UCCN2023 - FUNDAMENTALS OF WIRELESS COMMUNICATIONS

Pre-Requisite Unit(s) for UCCN3103
1. UCCN1003 - DATA COMMUNICATIONS AND NETWORKS

Pre-Requisite Unit(s) for UCCE2083
1. UCC2013 - OBJECT-ORIENTED PROGRAMMING

Pre-Requisite Unit(s) for UCCM2123
1. UCCM1123 - MATHEMATICS II

Pre-Requisite Unit(s) for UCCM3123
1. UCCM1123 - MATHEMATICS II

Pre-Requisite Unit(s) for UCCM3134
1. UCCM1123 - OPERATIONS RESEARCH I

Pre-Requisite Unit(s) for UCCN2103
1. UCCD1023 - DATA STRUCTURES AND ALGORITHMS
# Year 3

## Year 3 Trimester 1

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<thead>
<tr>
<th>Code</th>
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**Total Credit Hours:** 15.0

### BCTFE01 Elective Group - Choose 1 Unit(s)
- UCCE3013 - Integrated Circuit Design
- UCCE3023 - Analogue Circuit Design
- UCCE3032 - Embedded Computing
- UCCE3063 - Intelligent Techniques for Engineering Applications
- UCCE3073 - Computer Vision and Image Processing

### BCTFE03 Elective Group - Choose 1 Unit(s)
- UCCE2053 - Object-Oriented Modelling
- UCCE2063 - Algorithm Analysis
- UCCE2023 - Advanced Artificial Intelligence
- UCCE3073 - Software and Project Management
- UCCE2053 - Artificial Intelligence
- UCCE3033 - Technopreneurship
- UCCE2083 - Embedded Network Devices
- UCCE3073 - Computer Vision and Image Processing
- UCM2123 - Introductory Numerical Methods
- UCM3233 - Graph Theory and Applications
- UCM3123 - Operations Research I
- UCM3134 - Operations Research II
- UCCE2023 - Fundamentals of Wireless Communications
- UCCE2103 - Fundamentals of System Programming
- UCCE3013 - Wireless and Mobile Networking
- UCCE3103 - Network Programming

### Pre-Requisite Unit(s) for UCCE2083
1. UCC2053 - Object-Oriented Programming
2. UCCM1123 - Mathematics II

### Pre-Requisite Unit(s) for UCCE3013
1. UCCM1123 - Mathematics II

### Pre-Requisite Unit(s) for UCCE3014
1. UCCM3123 - Operations Research I

### Pre-Requisite Unit(s) for UCCE2103
1. UCCD1023 - Data Structures and Algorithms

### Pre-Requisite Unit(s) for UCCE2103
1. UCCN2023 - Fundamentals of Wireless Communications
2. UCCN2103 - Fundamentals of System Programming

## Year 3 Trimester 2

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**Total Credit Hours:** 6.0

### BCTFE01 Elective Group - Choose 1 Unit(s)
- UCCE3013 - Integrated Circuit Design
- UCCE3023 - Analogue Circuit Design
- UCCE3043 - Embedded Computing
- UCCE3063 - Intelligent Techniques for Engineering Applications
- UCCE3073 - Computer Vision and Image Processing

### BCTFE04 Elective Group - Choose 1 Unit(s)
- UALE1083 - Basic Professional Writing
- UALL3033 - Public Speaking and Oral Presentation
- UAMG1043 - Interpersonal Communication
- UAPS2003 - Introduction to Sociology
- UBMM1013 - Organisation and Human Resource
- UBMM1013 - Management Principles
- UBMM2023 - Organisational Behaviour

### Equivalent Unit(s) for UBMM2023
- UCM2103 - Organisational Behaviour

## Year 3 Trimester 3

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**Total Credit Hours:** 15.0

### Pre-Requisite 54 credit hours earned for UCCE2506
(Including University Wide or LAN Subjects)
REMARK: BACHELOR OF INFORMATION TECHNOLOGY (HONS) COMPUTER ENGINEERING 201101 Intake

NOTE: A pre-requisite group number represents one pre-requisite unit subject.
If a pre-requisite group number has more than one units, choose one unit out of a group.