## Year 1

### Year 1 Trimester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCCD100</td>
<td>Programming Concepts and Design</td>
<td>3.0</td>
</tr>
<tr>
<td>UCCD101</td>
<td>Analysis and Design of Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>UCCD120</td>
<td>Database Development and Application</td>
<td>3.0</td>
</tr>
<tr>
<td>LANGXXX3</td>
<td>National Language/Other Languages</td>
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**Total Credit Hours for Year 1 Trimester 1:** 12.0

### Year 1 Trimester 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>UCCD113</td>
<td>Introduction to Computer Organization and Architecture</td>
<td>3.0</td>
</tr>
<tr>
<td>UCCD102</td>
<td>Data Structures and Algorithms</td>
<td>3.0</td>
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<tr>
<td>UCM133</td>
<td>Introduction to Discrete Mathematics</td>
<td>3.0</td>
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<tr>
<td>UCM135</td>
<td>Basic Algebra</td>
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<tr>
<td>UBMM101</td>
<td>Sun Tzu's Art of War and Business Strategies</td>
<td>1.0</td>
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**Pre-Requisite Unit(s) for UCCD102:**
- UCCD100 - Programming Concepts and Design
- UCCS1003 - Programming Concepts and Design

**Total Credit Hours for Year 1 Trimester 2:** 10.0

### Year 1 Trimester 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>UCCN120</td>
<td>Fundamentals of Computer Security</td>
<td>3.0</td>
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<tr>
<td>USCC10X2</td>
<td>Co-Curricular Units</td>
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**Total Credit Hours for Year 1 Trimester 3:** 8.0

### Year 2

### Year 2 Trimester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>UCCD113</td>
<td>Introduction to Computer Organization and Architecture</td>
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**Total Credit Hours for Year 2 Trimester 1:** 3.0

### Year 2 Trimester 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>BCSFE04</td>
<td>Elective I (Liberal Arts)</td>
<td>3.0</td>
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<tr>
<td>UCCD2003</td>
<td>Object-Oriented System Analysis</td>
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**Total Credit Hours for Year 2 Trimester 2:** 6.0

**Pre-Requisite 60 credit hours earned for UCCC2596**
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Notes</th>
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<tr>
<td>UCCM112</td>
<td>CALCULUS I AND APPLICATIONS</td>
<td>3.0</td>
<td>Minor</td>
</tr>
<tr>
<td>UCCM210</td>
<td>STATISTICS</td>
<td>3.0</td>
<td>Minor</td>
</tr>
<tr>
<td>UCCN100</td>
<td>DATA COMMUNICATIONS AND NETWORKS</td>
<td>3.0</td>
<td>Major</td>
</tr>
</tbody>
</table>

**Total Credit Hours:** 12.0

- **BCSFE03 CORE GROUP - Choose 1 Unit(s)**
  - UCMC2113 - THEORY OF INTEREST
  - UCMC2123 - INTRODUCTORY NUMERICAL METHODS
  - UCMC2243 - APPLIED STATISTICS
  - UCMC2333 - GRAPH THEORY AND APPLICATIONS
  - UCMC3123 - OPERATIONS RESEARCH I
  - UCMC3134 - OPERATIONS RESEARCH II
  - UCMC3143 - MATHEMATICS OF INSURANCE
  - UCMC3154 - MATHEMATICS OF FINANCIAL MARKETS
  - UCMC3233 - QUALITY CONTROL
  - UCMC3244 - STOCHASTIC PROCESSES
  - UCMC3343 - CRYPTOGRAPHY
  - UCMC3354 - COMBINATORICS

- **MPWE02 CORE GROUP - Choose 1 Unit(s)**
  - MPW2143 - PENGAYAIAN ISLAM
  - MPW2153 - PENODIKAAN MORAL

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

**Year 3 Trimester 1**

- BCSFE03   Minor Elective  3.0
- MPWE02   Minor Elective  3.0
- UCCM210   Major Elective  3.0
- UCCN200   Major Elective  3.0

**Total Credit Hours:** 12.0

**Year 3 Trimester 2**

- BCSFE03   Major Elective  3.0
- MPWE02   Major Elective  3.0
- UCCC2063  Major Elective  3.0
- UCCC2214  Major Elective  3.0
- UCCC2203  Major Elective  3.0

**Total Credit Hours:** 13.0

**Pre-Requisite Unit(s) for UCCD2203**
- UCCD1203 - DATABASE DEVELOPMENT AND APPLICATIONS

**Equivalent Unit(s) for UCCD2203**
- UCIS2203 - DATABASE SYSTEMS

**Year 4 Trimester 1**

- BCSFE01   Minor Elective  3.0
- BCSFE03   Minor Elective  3.0

**Year 4 Trimester 2**

- BCSFE01   Major Elective  3.0
- BCSFE03   Minor Elective  4.0
BCSFE05

ELECTIVE II

Elective 3.0

UCCC3583

PROJECT I Major 3.0

Total Credit Hours 18.0

BCSFE01 CORE GROUP - Choose 3 Unit(s)

UCCC3043 - PARALLEL PROCESSING
UCCD2023 - MULTIMEDIA TECHNOLOGY
UCCD3113 - DISTRIBUTED COMPUTER SYSTEMS
UCCD3123 - MULTI-CORE PROGRAMMING
UCCD2113 - SOFTWARE ENGINEERING PRACTICES
UCCN2203 - NETWORK AND COMPUTER SECURITY

Pre-Requisite Unit(s) for UCCD3123
1. UCCD1023 - DATA STRUCTURES AND ALGORITHMS

BCSFE03 CORE GROUP - Choose 1 Unit(s)

UCCM2113 - THEORY OF INTEREST
UCCM2123 - INTRODUCTORY NUMERICAL METHODS
UCCM2243 - APPLIED STATISTICS
UCCM2333 - GRAPH THEORY AND APPLICATIONS
UCCM3123 - OPERATIONS RESEARCH I
UCCM3143 - MATHEMATICS OF INSURANCE
UCCM3154 - MATHEMATICS OF FINANCIAL MARKETS
UCCM3233 - QUALITY CONTROL
UCCM3244 - STOCHASTIC PROCESSES
UCCM3343 - CRYPTOGRAPHY
UCCM3354 - COMBINATORICS

UCCC3023

ADVANCED ARTIFICIAL INTELLIGENCE

Major 3.0

UCCC3596

PROJECT II Major 6.0

Total Credit Hours 16.0

BCSFE01 CORE GROUP - Choose 1 Unit(s)

UCCC3043 - PARALLEL PROCESSING
UCCD2023 - MULTIMEDIA TECHNOLOGY
UCCD3113 - DISTRIBUTED COMPUTER SYSTEMS
UCCD3123 - MULTI-CORE PROGRAMMING
UCCD3213 - SOFTWARE ENGINEERING PRACTICES
UCCN2203 - NETWORK AND COMPUTER SECURITY

Pre-Requisite Unit(s) for UCCD3123
1. UCCD1023 - DATA STRUCTURES AND ALGORITHMS

BCSFE03 CORE GROUP - Choose 1 Unit(s)

UCCM2113 - THEORY OF INTEREST
UCCM2123 - INTRODUCTORY NUMERICAL METHODS
UCCM2243 - APPLIED STATISTICS
UCCM2333 - GRAPH THEORY AND APPLICATIONS
UCCM3123 - OPERATIONS RESEARCH I
UCCM3143 - MATHEMATICS OF INSURANCE
UCCM3154 - MATHEMATICS OF FINANCIAL MARKETS
UCCM3233 - QUALITY CONTROL
UCCM3244 - STOCHASTIC PROCESSES
UCCM3343 - CRYPTOGRAPHY
UCCM3354 - COMBINATORICS

UCIM3033 - TECHNOPRENEURSHIP
UCIM3043 - COMPUTER LAW AND ETHICS

Pre-Requisite 80 credit hours earned for UCCC3583
(Including University Wide or LAN Subjects)

REMARK:  CS - January 2011 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.