

**Discrete Mathematics : C201 Year of study:2019-20**

- |     |  |
|-----|--|
| CO1 | Have knowledge of the concepts needed to test the logic of a program.  |
| CO2 | Have an understanding in identifying structures on many levels.  |
| CO3 | Be aware of a class of functions which transform a finite set into another finite set which relates to input and output functions in computer science. |
| CO4 | Be aware of the counting principles.   |
| CO5 | Be exposed to concepts and properties of algebraic structures such as groups, rings and fields.  |

**Digital Principles and System Design: C202 Year of study:2019-20**

- |     |  |
|-----|--|
| CO1 | Simplify Boolean functions using Kmap  |
| CO2 | Design and Analyze Combinational and Sequential Circuits                     |
| CO3 | Implement designs using Programmable Logic Devices                           |
| CO4 | Write HDL code for combinational and Sequential Circuits                     |
| CO5 | Identify the characteristics of various memory systems and I/O communication |

**Data Structures: C203 Year of study:2019-20**

- |     |   |
|-----|---|
| CO1 | Implement abstract data types for linear data structures  |
| CO2 | Critically analyze the various sorting algorithms   |
| CO3 | Apply the different linear and non-linear data structures to problem solutions                        |
| CO4 | The Student can know to implement graph representation and graph traversal                            |
| CO5 | The Student will able to implement different sorting algorithms (Bubble Sort, Radix Sort, Shell Sort) |

**Object Oriented Programming: C204 Year of study:2019-20**

- |     |  |
|-----|--|
| CO1 | Develop Java programs using OOP principles                         |
| CO2 | Develop Java programs with the concepts inheritance and interfaces |
| CO3 | Build Java applications using exceptions and I/O streams           |
| CO4 | Develop Java applications with threads and generics classes        |
| CO5 | Develop interactive Java programs using swings                     |

**Communication Engineering: C205 Year of study:2019-20**

- |     |   |
|-----|---|
| CO1 | Ability to comprehend and appreciate the significance and role of this course in the present contemporary world |
| CO2 | Apply analog and digital communication techniques   |
| CO3 | Use data and pulse communication techniques   |
| CO4 | Analyze Source and Error control coding   |
| CO5 |   |

**Data Structures Laboratory: C206 Year of study:2019-20**

- |     |  |
|-----|--|
| CO1 | Write functions to implement linear and non-linear data structure operations                             |
| CO2 | Suggest appropriate linear / non-linear data structure operations for solving a given problem            |
| CO3 | Appropriately use the linear / non-linear data structure operations for a given problem                  |
| CO4 | Apply appropriate hash functions that result in a collision free scenario for data storage and retrieval |
| CO5 | Analyze the various searching and sorting algorithms.  |