

Department of Computer Science and Engineering

Details of Institute Core (IC) Courses

| Institute Core (IC) Courses | | | | |
|-----------------------------|------------------------|--------------------------|-------|-------------|
| S. No. | Course Code | Course Name | L-T-P | Course Type |
| 1 | CSI101 | Computer Programming | 2-1-0 | Modular |
| 2 | CSI102 | Computer Programming Lab | 0-0-2 | Modular |

Details of Departmental Compulsary (DC) Courses

| Departmental Compulsary (DC) Courses | | | | |
|--------------------------------------|------------------------|---|-------------|-------------|
| S. No. | Course Code | Course Name | L-T-P | Course Type |
| 1 | CSC201 | Data Structures | 3-0-0 | Theory |
| 2 | CSC202 | Discrete Mathematics | 3-0-0 | Theory |
| 3 | CSC203 | Computer Organization | 3-0-0 | Theory |
| 4 | CSC204 | Data Structures Lab | 0-0-2 | Practical |
| 5 | CSC205 | Computer Organization Lab | 0-0-2 | Practical |
| 6 | CSC206 | Algorithm Design & Analysis | 3-0-0 | Theory |
| 7 | CSC207 | Computer Architecture | 3-0-0 | Theory |
| 8 | CSC208 | Theory of Computation | 3-0-0 | Theory |
| 9 | CSC209 | Operating Systems | 3-0-0 | Theory |
| 10 | CSC210 | Algorithm Design & Analysis Lab | 0-0-2 | Practical |
| 11 | CSC211 | Operating Systems Lab | 0-0-2 | Practical |
| 12 | CSC301 | Database Management Systems | 3-0-0 | Theory |
| 13 | CSC302 | Compiler Design | 3-0-0 | Theory |
| 14 | CSC303 | Database Management Systems Lab | 0-0-2 | Practical |
| 15 | CSC304 | Compiler Design Lab | 0-0-2 | Practical |
| 16 | CSC305 | Computer Network | 3-0-0 | Theory |
| 17 | CSC306 | Software Engineering | 3-0-0 | Theory |
| 18 | CSC307 | Computer Networks Lab | 0-0-2 | Theory |
| 19 | CSC308 | Software Engineering Lab | 0-0-2 | Practical |
| 20 | CSC401 | Project - I | 0-0-0 (6) | Non-Contact |
| 21 | CSC402 | Project - II | 0-0-0 (6) | Non-Contact |
| 22 | CSC501 | Advanced Data Structures & Algorithms | 3-0-0 | Theory |
| 23 | CSC502 | Advanced DBMS | 3-0-0 | Theory |
| 24 | CSC503 | Algorithmic Graph Theory | 3-0-0 | Theory |
| 25 | CSC504 | Computing Techniques and Mathematical Tools | 3-0-0 | Theory |
| 26 | CSC505 | High Performance Computer Architecture | 3-0-0 | Theory |
| 27 | CSC506 | Advanced Data Structures & Algorithms Lab | 0-0-2 | Practical |
| 28 | CSC507 | Computing Techniques and Mathematical Tools Lab | 0-0-2 | Practical |
| 29 | CSC508 | Computing Lab - I | 0-0-3 | Practical |
| 30 | CSC509 | Computing Lab - II | 0-0-3 | Practical |
| 31 | CSC510 | Interactive Computer Graphics | 3-0-0 | Theory |
| 32 | CSC516 | Research Methodology | 3-0-0 | Theory |
| 33 | CSC517 | Selected Topics in Algorithms | 3-0-0 | Theory |
| 34 | CSC518 | Number Theory and Cryptography | 3-0-0 | Theory |
| 35 | CSC597 | Thesis | 0-0-0 (36) | Non-Contact |
| 36 | CSC598 | Thesis | 0-0-0 (18) | Non-Contact |
| 37 | CSC599 | Thesis | 0-0-0 (S/X) | Audit |
| 38 | CSS401 | Internship | 0-0-0 (S/X) | Audit |

Details of Engineering Science Option (ESO) Courses

| Engineering Science Option (ESO) Courses | | | | |
|--|------------------------|--------------------------------|-------|-------------|
| S. No. | Course Code | Course Name | L-T-P | Course Type |
| 1 | CSE201 | Data Structures and Algorithms | 3-0-0 | Theory |
| 2 | CSE202 | Object Oriented Programming | 3-0-0 | Theory |

Details of Departmental Elective (DE) Courses

| Departmental Elective (DE) Courses | | | | |
|------------------------------------|------------------------|--------------------------------------|-------|-------------|
| S. No. | Course Code | Course Name | L-T-P | Course Type |
| 1 | CSD401 | Advanced Algorithms | 3-0-0 | Theory |
| 2 | CSD402 | Bioinformatics | 3-0-0 | Theory |
| 3 | CSD403 | Combinatorics and Graph Theory | 3-0-0 | Theory |
| 4 | CSD404 | Computer Graphics | 3-0-0 | Theory |
| 5 | CSD405 | Evolutionary Computation | 3-0-0 | Theory |
| 6 | CSD406 | Multimedia Systems | 3-0-0 | Theory |
| 7 | CSD407 | Network Security | 3-0-0 | Theory |
| 8 | CSD408 | VLSI Designs | 3-0-0 | Theory |
| 9 | CSD409 | Wireless and Mobile Computing | 3-0-0 | Theory |
| 10 | CSD410 | Quantum Computing | 3-0-0 | Theory |
| 11 | CSD501 | Algorithms for Bioinformatics | 3-0-0 | Theory |
| 12 | CSD502 | Cloud Computing | 3-0-0 | Theory |
| 13 | CSD503 | Computational Number Theory | 3-0-0 | Theory |
| 14 | CSD504 | Computer Vision | 3-0-0 | Theory |
| 15 | CSD505 | Cryptography and Network Security | 3-0-0 | Theory |
| 16 | CSD506 | Cryptology | 3-0-0 | Theory |
| 17 | CSD507 | Data Compression | 3-0-0 | Theory |
| 18 | CSD508 | Distributed Systems | 3-0-0 | Theory |
| 19 | CSD509 | Image and Video Processing | 3-0-0 | Theory |
| 20 | CSD510 | Information Retrieval | 3-0-0 | Theory |
| 21 | CSD511 | Information Theory and Coding | 3-0-0 | Theory |
| 22 | CSD513 | Internet of Things | 3-0-0 | Theory |
| 23 | CSD514 | Mobile and Wireless Network Security | 3-0-0 | Theory |
| 24 | CSD515 | Multimedia Systems and Security | 3-0-0 | Theory |
| 25 | CSD516 | Optimization Techniques | 3-0-0 | Theory |
| 26 | CSD517 | Parallel Computing | 3-0-0 | Theory |
| 27 | CSD518 | Pattern Recognition | 3-0-0 | Theory |
| 28 | CSD519 | Software Testing | 3-0-0 | Theory |
| 29 | CSD520 | VLSI Design and Testing | 3-0-0 | Theory |
| 30 | CSD521 | Wireless Networks | 3-0-0 | Theory |

Details of Open Elective (OE) Courses

| Open Elective (OE) Courses | | | | |
|----------------------------|------------------------|---------------------------------------|-------|-------------|
| S. No. | Course Code | Course Name | L-T-P | Course Type |
| 1 | CSO302 | Graph Theory | 3-0-0 | Theory |
| 2 | CSO303 | Artificial Intelligence | 3-0-0 | Theory |
| 3 | CSO304 | Digital Image Processing | 3-0-0 | Theory |
| 4 | CSO403 | Internet Technology | 3-0-0 | Theory |
| 5 | CSO404 | Cryptography | 3-0-0 | Theory |
| 6 | CSO501 | Principles of Artificial Intelligence | 3-0-0 | Theory |
| 7 | CSO502 | Data Analytics | 3-0-0 | Theory |
| 8 | CSO503 | Data Mining | 3-0-0 | Theory |
| 9 | CSO504 | Machine Learning | 3-0-0 | Theory |
| 10 | CSO505 | Soft Computing | 3-0-0 | Theory |
| 11 | CSO506 | Principles of Blockchain Technologies | 3-0-0 | Theory |
| 12 | CSO507 | Deep Learning | 3-0-0 | Theory |
| 13 | CSO508 | Building Software Systems | 3-0-0 | Theory |
| 14 | CSO509 | Advanced Software Engineering | 3-0-0 | Theory |
| 15 | CSO801 | Artificial Intelligence (Module I) | 0-2-0 | online |