

B.Tech Curriculum - Computer Science and Engineering From Academic Year 2019-20

Semester - I

| S.No | Course No | Course Name | Category | L-T-P-C |
|--------------|-----------------------------------|---|-------------|--------------------|
| 1. | ES1101/ EA1101 | Computational Engineering/ Engineering Drawing | BET/ BES | 2-0-3-4 1-0-3-3 |
| 2. | CY1101 / CY1202 | Physical and Theoretical Chemistry / Organic and Inorganic Chemistry | SCY | 2-1-0-3 |
| 3. | ID1101 | Concepts in Engineering and Design | BET | 1-0-2-2 |
| 4. | MA1101 | Calculus | SMA | 3-1-0-4 |
| 5. | PH1101 | Introduction to Classical Mechanics | SPH | 2-1-0-3 |
| 6. | PH1103 | Physics Laboratory | SPH | 0-0-3-2 |
| 7. | EA1103 | Workshop-I | BES | 0-0-3-2 |
| 8. | HS1101/ HS1103/ HS1105/ HS1107 | Language Course (Pass/Fail) | HPF | 2-0-0-2 |
| Total | | | | 22/21 |

Semester - II

| S.No | Course No | Course Name | Category | L-T-P-C |
|--------------|-------------------|--|-------------|--------------------|
| 1. | ES1101/ EA1101 | Computational Engineering/ Engineering Drawing | BET/ BES | 2-0-3-4 1-0-3-3 |
| 2. | CY1101/ CY1202 | Physical and Theoretical Chemistry/ Organic and Inorganic Chemistry | SCY | 2-1-0-3 |
| 3. | ES1201 | Basic Electrical Engineering | BET | 3-1-0-4 |
| 4. | MA1202 | Differential Equations and Matrices | SMA | 3-1-0-4 |
| 5. | PH1202 | Introduction to Electrodynamics and Quantum Mechanics | SPH | 2-1-0-3 |
| 6. | PH1103/CY1204 | Physics Laboratory /Chemistry Laboratory | SPH/SCY | 0-0-3-2 |
| 7. | EA1202 | Workshop-II | BES | 0-0-3-2 |
| Total | | | | 21/22 |

Semester - III

| S.No | Course No | Course Name | Category | L-T-P-C |
|--------------|-----------|---|----------|-----------|
| 1. | CS/EE2101 | Digital Systems | PMT | 3-1-0-4 |
| 2. | CS2103 | Discrete Mathematics for Computer Science | PMT | 3-0-0-3 |
| 3. | CS2105 | Programming Methodology | PMT | 2-0-3-4 |
| 4. | CS/EE2191 | Digital Systems Laboratory | PML | 0-0-3-2 |
| 5. | ES2101 | Engineering Mechanics | BET | 3-1-0-4 |
| 6. | ES2103 | Ecology and Environment | BET | 2-0-0-2 |
| 7. | HSE1 | Humanities Elective-1 | HSS | 3-0-0-3 |
| 8. | MA2021 | Linear Algebra | SMA | 3-0-0-3 |
| Total | | | | 25 |

Semester - IV

| S.No | Course No | Course Name | Category | L-T-P-C |
|--------------|-----------|---|----------|-----------|
| 1. | BS2101 | Life Sciences | SLS | 2-0-0-2 |
| 2. | CS2202 | Theory of Computation | PMT | 3-0-0-3 |
| 3. | CS2204 | Computer Organization | PMT | 3-0-0-3 |
| 4. | CS2206 | Data Structures and Algorithms | PMT | 3-1-0-4 |
| 5. | CS2292 | Computer Organization Laboratory | PML | 0-0-3-2 |
| 6. | CS2294 | Data Structures and Algorithms Laboratory | PML | 0-0-3-2 |
| 7. | HSE2 | Humanities Elective-2 | HSS | 3-0-0-3 |
| 8. | MA2023 | Probability and Statistics | SMA | 3-0-0-3 |
| Total | | | | 22 |

Semester - V

| S.No | Course No | Course Name | Category | L-T-P-C |
|--------------|-----------|-----------------------------------|----------|-----------|
| 1. | CS3101 | Design and Analysis of Algorithms | PMT | 3-0-0-3 |
| 2. | CS3103 | Compiler Design | PMT | 3-0-0-3 |
| 3. | CS3105 | Software Engineering | PMT | 3-0-0-3 |
| 4. | CS3107 | Operating Systems | PMT | 3-0-0-3 |
| 5. | CS3109 | Machine Learning | PMT | 3-0-0-3 |
| 6. | CS3191 | Compiler Design Laboratory | PML | 0-0-3-2 |
| 7. | CS3193 | Operating Systems Laboratory | PML | 0-0-3-2 |
| 8. | FRE1 | Free Elective-1 | FRE | 3-0-0-3 |
| Total | | | | 22 |

Semester - VI

| S.No | Course No | Course Name | Category | L-T-P-C |
|---------------|-----------|---------------------------------|----------|-----------|
| 1. | CS3202 | Computer Networks | PMT | 3-0-0-3 |
| 2. | CS3204 | Artificial Intelligence | PMT | 3-0-0-3 |
| 3. | CS3206 | Database Systems | PMT | 3-0-2-4 |
| 4. | CS3292 | Computer Networks Laboratory | PML | 0-0-3-2 |
| 5. | CS3294 | Software Engineering Laboratory | PML | 0-0-3-2 |
| 6. | CS3296 | Intelligent Systems Laboratory | PML | 0-0-3-2 |
| 7. | HSE3 | Humanities Elective-3 | HSS | 3-0-0-3 |
| 8. | FRE2 | Free Elective-2 | FRE | 3-0-0-3 |
| Summer | | | | |
| 9. | IT3202 | Industrial/Research Internship | PIT | --- 2 |
| Total | | | | 24 |

Semester - VII

| S.No | Course No | Course Name | Category | L-T-P-C |
|--------------|-----------|-----------------------------------|----------|-----------|
| 1. | CS4101 | Computer System Design | PMT | 3-0-0-3 |
| 2. | CS4150 | Project Phase-I | PMP | --- 2 |
| 3. | CS4191 | Computer System Design Laboratory | PML | 0-0-3-2 |
| 4. | DPE1 | Department Elective-1 | PMT | 3-0-0-3 |
| 5. | FRE3 | Free Elective-3 | FRE | 3-0-0-3 |
| 6. | IL4101 | Industrial Lecture | PIL | 1-0-0-1 |
| Total | | | | 14 |

Semester - VIII

| S.No | Course No | Course Name | Category | L-T-P-C |
|--------------|-----------|-----------------------|----------|-----------|
| 1. | CS4250 | Project Phase-II | PMP | --- 7 |
| 2. | DPE2 | Department Elective-2 | PMT | 3-0-0-3 |
| 3. | DPE3 | Department Elective-3 | PMT | 3-0-0-3 |
| 4. | HS4202 | Professional Ethics | HPE | 2-0-0-2 |
| Total | | | | 15 |

Total Credits - 165