

SYMBIOSIS INSTITUTE OF TECHNOLOGY
BACHELOR OF TECHNOLOGY
PROGRAMME STRUCTURE 2015-19

- 1. OBJECTIVE** B.Tech. is a full-time four year graduation programme, which aims at transforming a student into a technically sound professional. The syllabus contains courses on basic sciences, technical arts, humanities & liberal arts and professional courses. The mix of these courses has been evolved with an aim to produce professionals who have knowledge not only of Engineering but who are good managers to contribute in a cross-functional team and have human values. Being a professional programme it ensures a healthy balance between theoretical foundation and practical exposure to the present day world. The emphasis is to develop all round personality that would enable the students to take up the challenges of the corporate world and also become responsible citizens of the society.
- 2. DURATION** Four Years Full Time
- 3. INTAKE** 420 Students
- 4. RESERVATION**
- I. Within the sanctioned intake:
- a) Scheduled Castes – 15%
 - b) Scheduled Tribes – 7.5%
 - c) Differently Able - 3%
- II. Over and above the sanctioned intake:
- a) Kashmiri Migrants - 2 Seats
 - b) International Students – 15%
- 5. ELIGIBILITY** Passed 10+2 examination with Physics and Mathematics as compulsory subjects along with one of Chemistry/Biotechnology/Biology/Technical Vocational subjects and obtained at least 45% marks (40% in case of candidates belonging to SC/ST category) in the above subjects taken together.
- 6. SELECTION PROCEDURE** Merit list by valid score of Symbiosis Entrance Test (SET) or Joint Entrance Examination (JEE - Main)

| | | | | | | | | | | | | | |
|--|--|-------------------|----------------|-------------------|------------|--------------|-----------------------|-------------------|----------------|-------------------|-------------|--------------|-----------------------|
| 7. MEDIUM OF INSTRUCTION | English | | | | | | | | | | | | |
| 8. PROGRAMME PATTERN | Semester Pattern - 8 Semesters | | | | | | | | | | | | |
| 9. COURSES & SPECIALIZATION | Computer Science and Engineering, Electronics and Telecommunication Engineering, Information Technology, Mechanical and Civil As per Annexure A | | | | | | | | | | | | |
| 10. FEE | <p>Indian Students</p> <table border="0"> <tr> <td>Academic Fee p.a.</td> <td>Rs. 2, 05, 000</td> </tr> <tr> <td>Institute Deposit</td> <td>Rs. 10,000</td> </tr> <tr> <td>Total</td> <td>Rs. 2, 15, 000</td> </tr> </table> <p>International Students</p> <table border="0"> <tr> <td>Academic Fee p.a.</td> <td>Rs. 3, 07, 500</td> </tr> <tr> <td>Institute Deposit</td> <td>Rs. 10, 000</td> </tr> <tr> <td>Total</td> <td>Rs. 3, 17, 500</td> </tr> </table> | Academic Fee p.a. | Rs. 2, 05, 000 | Institute Deposit | Rs. 10,000 | Total | Rs. 2, 15, 000 | Academic Fee p.a. | Rs. 3, 07, 500 | Institute Deposit | Rs. 10, 000 | Total | Rs. 3, 17, 500 |
| Academic Fee p.a. | Rs. 2, 05, 000 | | | | | | | | | | | | |
| Institute Deposit | Rs. 10,000 | | | | | | | | | | | | |
| Total | Rs. 2, 15, 000 | | | | | | | | | | | | |
| Academic Fee p.a. | Rs. 3, 07, 500 | | | | | | | | | | | | |
| Institute Deposit | Rs. 10, 000 | | | | | | | | | | | | |
| Total | Rs. 3, 17, 500 | | | | | | | | | | | | |
| 11. ASSESSMENT | All internal courses will have 100% component as internal evaluation at the institute level. All external courses will have 40% internal component and 60% component as external [University] examination. The internal and external will be separate heads of passing. | | | | | | | | | | | | |
| 12. STANDARD OF PASSING | The assessment of the student for each examination is done, based on relative performance. Maximum Grade Point (GP) is 10 corresponding to O (Outstanding). For all courses, a student is required to pass both internal and external examination separately with a minimum Grade Point of 4 corresponding to Grade P. Students securing less than 40% absolute marks in each head of passing will be declared FAIL. The University awards a degree to the student who has achieved a minimum CGPA of 4 out of maximum of 10 CGPA for the programme. | | | | | | | | | | | | |

13. AWARD OF DEGREE

Bachelor of Technology (B Tech) will be awarded in any one of the specializations: Civil Engineering, Computer Science and Engineering, Electronics and Telecommunication Engineering, Information Technology, Mechanical Engineering at the end of semester VIII examination by taking into consideration the performance of all semester examinations after obtaining minimum 4.00 CGPA out of 10 CGPA.

**First Year (Common for all branches)
Semester I**

| GROUP : A | | | | | | | | | | | | |
|---------------------|---------------|---|--------|-----------------|----------|-----------|-----------|-----------|--------------------------|------------|---------------|-------------|
| Catalog Course Code | Course Code | Course Title | Nature | Teaching Scheme | | | Practical | | Examination Scheme Marks | | Total Credits | Total Marks |
| | | | | L | T | Lab | CA | ESE | CA | ESE | | |
| T7385 | 070121101 FY | Engineering Mathematics I | ES | 4 | 2 | - | - | - | 50 | 75 | 5 | 125 |
| T7604 | 070121102 FYA | Basic Mechanical Engineering | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7418 | 070121103 FYA | Environmental and Civil Engineering | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7391 | 070121104 FYA | Physics | ES | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7484 | 070121105 FYA | Computer Programming | C | 2 | - | - | - | - | 20 | 30 | 2 | 50 |
| T7605 | 070121106 FYA | Basic Mechanical Engineering Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7458 | 070121107 FYA | Environmental and Civil Engineering Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7392 | 070121108 FYA | Physics Lab | ES | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7485 | 070121109 FYA | Computer Programming Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7658 | 070121110 FYA | Workshop Practice | C | - | - | 4 | 20 | 30 | - | - | 2 | 50 |
| | 070121111 FYA | Applied Biology | ID | 3 | - | - | - | - | 75 | - | 3 | 75 |
| | | Total | | 18 | 2 | 12 | 60 | 90 | 235 | 240 | 25 | 625 |

| GROUP : B | | | | | | | | | | | | |
|---------------------|---------------|--|--------|-----------------|----------|----------|-----------|-----------|--------------------------|------------|---------------|-------------|
| Catalog Course Code | Course Code | Course Title | Nature | Teaching Scheme | | | Practical | | Examination Scheme Marks | | Total Credits | Total Marks |
| | | | | L | T | Lab | CA | ESE | CA | ESE | | |
| T7385 | 070121101 FYB | Engineering Mathematics I | ES | 4 | 2 | - | - | - | 50 | 75 | 5 | 125 |
| T7540 | 070121112 FYB | Basic Electrical and Electronics Engineering | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7414 | 070121113 FYB | Engineering Mechanics | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7381 | 070121114 FYB | Chemistry | ES | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7609 | 070121115 FYB | Engineering Graphics | C | 2 | 4 | - | - | - | 40 | 60 | 4 | 100 |
| T7383 | 070121116 FYB | Communication Skills | GP | 2 | - | - | - | - | 50 | - | 2 | 50 |
| T7593 | 070121117 FYB | Basic Electrical and Electronics Engineering Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7415 | 070121118 FYB | Engineering Mechanics Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7382 | 070121119 FYB | Chemistry Lab | ES | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7384 | 070121120 FYB | Communication Skills Lab | GP | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| | | Total | | 17 | 6 | 8 | 40 | 60 | 230 | 270 | 24 | 600 |

Semester II

| GROUP : A | | | | | | | | | | | | |
|---------------------|---------------|--|--------|-----------------|----------|----------|-----------|-----------|--------------------------|------------|---------------|-------------|
| Catalog Course Code | Course Code | Course Title | Nature | Teaching Scheme | | | Practical | | Examination Scheme Marks | | Total Credits | Total Marks |
| | | | | L | T | Lab | CA | ESE | CA | ESE | | |
| T7387 | 070121201 FY | Engineering Mathematics II | ES | 4 | 2 | - | - | - | 50 | 75 | 5 | 125 |
| T7540 | 070121212 FYA | Basic Electrical and Electronics Engineering | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7414 | 070121213 FYA | Engineering Mechanics | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7381 | 070121214 FYA | Chemistry | ES | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7609 | 070121215 FYA | Engineering Graphics | C | 2 | 4 | - | - | - | 40 | 60 | 4 | 100 |
| T7383 | 070121216 FYA | Communication Skills | GP | 2 | - | - | - | - | 50 | - | 2 | 50 |
| T7593 | 070121217 FYA | Basic Electrical and Electronics Engineering Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7415 | 070121218 FYA | Engineering Mechanics Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7382 | 070121219 FYA | Chemistry Lab | ES | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7384 | 070121220 FYA | Communication Skills Lab | GP | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| Total | | | | 17 | 6 | 8 | 40 | 60 | 230 | 270 | 24 | 600 |

| GROUP : B | | | | | | | | | | | | |
|---------------------|---------------|---|--------|-----------------|----------|-----------|-----------|-----------|--------------------------|------------|---------------|-------------|
| Catalog Course Code | Course Code | Course Title | Nature | Teaching Scheme | | | Practical | | Examination Scheme Marks | | Total Credits | Total Marks |
| | | | | L | T | Lab | CA | ESE | CA | ESE | | |
| T7387 | 070121201 FY | Engineering Mathematics II | ES | 4 | 2 | - | - | - | 50 | 75 | 5 | 125 |
| T7604 | 070121202 FYB | Basic Mechanical Engineering | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7418 | 070121203 FYB | Environmental and Civil Engineering | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7391 | 070121204 FYB | Physics | ES | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7484 | 070121205 FYB | Computer Programming | C | 2 | - | - | - | - | 20 | 30 | 2 | 50 |
| T7605 | 070121206 FYB | Basic Mechanical Engineering Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7458 | 070121207 FYB | Environmental and Civil Engineering Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7392 | 070121208 FYB | Physics Lab | ES | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7485 | 070121209 FYB | Computer Programming Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7658 | 070121210 FYB | Workshop Practice | C | - | - | 4 | 20 | 30 | - | - | 2 | 50 |
| | 070121211 FYB | Applied Biology | ID | 3 | - | - | - | - | 75 | - | 3 | 75 |
| Total | | | | 18 | 2 | 12 | 60 | 90 | 235 | 240 | 25 | 625 |

Semester III

| Catalog Course Code | Course Code | Course Title | Nature | Teaching Scheme | | | Examination Scheme Marks | | | | Credits | Total Marks |
|---|-----------------|--|--------|-----------------|----------|----------|--------------------------|-----------|------------|------------|-----------|--------------|
| | | | | L | T | Lab | Practical | | CA | ESE | | |
| | | | | | | | CA | ESE | | | | |
| T7492 | 070121301 CS | Discrete Structures | C | 3 | 2 | - | - | - | 40 | 60 | 4 | 100 |
| T7512 | 070121302 CS | Programming Paradigms | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7495 | 070121303 CS | Fundamentals of Data Structures | C | 3 | 2 | - | - | - | 40 | 60 | 4 | 100 |
| T7483 | 070121304 CS | Computer Organization | C | 3 | 2 | - | - | - | 40 | 60 | 4 | 100 |
| T7554 | 070121305 CS | Digital Electronics and Logic Design | ID | 3 | 2 | - | - | - | 40 | 60 | 4 | 100 |
| T7513 | 070121306 CS | Programming Paradigms Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7496 | 070121307 CS | Fundamentals of Data Structures Lab | C | - | - | 4 | 20 | 30 | - | - | 2 | 50 |
| T7555 | 070121308 CS | Digital Electronics and Logic Design Lab | ID | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| Liberal Arts - Choose any two of the following | | | | | | | | | | | | |
| T6184 | 070121309 CS | Basic German I | ID | 2 | - | - | - | - | 50 | - | 2 | 50 |
| T6185 | 070121310 CS | Basic German II | ID | 2 | - | - | - | - | 50 | - | 2 | 50 |
| T6186 | 070121311 CS | Basic French I | ID | 2 | - | - | - | - | 50 | - | 2 | 50 |
| T6187 | 070121312 CS | Basic French II | ID | 2 | - | - | - | - | 50 | - | 2 | 50 |
| T6188 | 070121313 CS | Basic Spanish I | ID | 2 | - | - | - | - | 50 | - | 2 | 50 |
| T6189 | 070121314 CS | Basic Spanish II | ID | 2 | - | - | - | - | 50 | - | 2 | 50 |
| T6167 | 070121315 CS | Basics of Microeconomics | ID | 2 | - | - | - | - | 50 | - | 2 | 50 |
| T6168 | 070121316 CS | Basics of Macroeconomics | ID | 2 | - | - | - | - | 50 | - | 2 | 50 |
| T6274 | 070121317 CS | Foundations of Ethics | ID | 2 | - | - | - | - | 50 | - | 2 | 50 |
| T6275 | 07012318 CS | Concept of Wealth and Prosperity | ID | 2 | - | - | - | - | 50 | - | 2 | 50 |
| | | Total | | 19 | 8 | 8 | 40 | 60 | 290 | 285 | 27 | 675 |
| T4005 | 070121319 CS | *Integrated Disaster Management | GP | - | - | - | - | - | - | - | - | Letter Grade |

Semester IV

| Catalog Course Code | Course Code | Course Title | Nature | Teaching Scheme | | | Examination Scheme Marks | | | | Credits | Total Marks |
|---------------------|-----------------|-------------------------------|--------|-----------------|----------|-----------|--------------------------|-----------|------------|------------|-----------|-------------|
| | | | | L | T | Lab | Practical | | CA | ESE | | |
| | | | | | | | CA | ESE | | | | |
| T7380 | 070121401 CS | Applied Mathematics | ES | 3 | 2 | - | - | - | 40 | 60 | 4 | 100 |
| T7510 | 070121402 CS | Operating Systems | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7501 | 070121403 CS | Java and Web Technologies | C | 3 | 2 | - | - | - | 40 | 60 | 4 | 100 |
| T7516 | 070121404 CS | Software Engineering | C | 3 | 2 | - | - | - | 40 | 60 | 4 | 100 |
| T7488 | 070121405 CS | Data Structures | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7577 | 070121406 CS | Microprocessor Techniques | ID | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7511 | 070121407 CS | Operating Systems Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7500 | 070121408 CS | Java and Web Technologies Lab | C | - | - | 4 | 20 | 30 | - | - | 2 | 50 |
| T7489 | 070121409 CS | Data Structures Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7578 | 070121410 CS | Microprocessor Techniques Lab | ID | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7674 | 070121411 CS | Cyber Security | C | 2 | - | - | - | - | 50 | - | 2 | 50 |
| | | Total | | 20 | 6 | 10 | 50 | 75 | 260 | 315 | 28 | 700 |
| | 070121412 CS | Global Immersion Programme | C | - | - | - | - | - | - | 375 | 15 | 375 |
| | 070121413 CS | Project | C | - | - | 6 | - | - | 75 | - | 3 | 75 |

For 2 hours tutorial, there will be 1 hour classroom teaching and 1 hour for projects/self-study/assignments.

For the student who opt for "Global Immersion Programme" 070121412 CS and "Project" 070121413 CS the courses 070121401CS to 070121405CS will be waived off

Semester V

| Catalog Course Code | Course Code | Course Title | Nature | Teaching Scheme | | | Examination Scheme Marks | | | | Credits | Total Marks |
|---------------------|-----------------|---------------------------------------|--------|-----------------|----------|----------|--------------------------|-----------|------------|------------|-----------|-------------|
| | | | | L | T | Lab | Practical | | CA | ESE | | |
| | | | | | | | CA | ESE | | | | |
| T7486 | 070121501 CS | Data Base Management Systems | C | 4 | - | - | - | - | 40 | 60 | 4 | 100 |
| T7518 | 070121502 CS | Theory of Computation | C | 3 | 2 | - | - | - | 40 | 60 | 4 | 100 |
| T7481 | 070121503 CS | Computer Networks | C | 4 | - | - | - | - | 40 | 60 | 4 | 100 |
| T7490 | 070121504 CS | Design and Analysis of Algorithms | C | 4 | - | - | - | - | 40 | 60 | 4 | 100 |
| T7487 | 070121505 CS | Data Base Management Systems Lab | C | - | - | 4 | 20 | 30 | - | - | 2 | 50 |
| T7482 | 070121506 CS | Computer Networks Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7491 | 070121507 CS | Design and Analysis of Algorithms Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7644 | 070121508 CS | Operations Research | ID | 2 | 2 | - | - | - | 30 | 45 | 3 | 75 |
| | 070121509 CS | Inter Institute Course I | C | 2 | | | | | 50 | - | 2 | 50 |
| | 070121510 CS | Inter Institute Course II | C | 2 | | | | | 50 | - | 2 | 50 |
| | | Total | | 21 | 4 | 8 | 40 | 60 | 290 | 285 | 27 | 675 |

For 2 hours tutorial, there will be 1 hour classroom teaching and 1 hour for projects/self-study/assignments.

Semester VI

| Catalog Course Code | Course Code | Course Title | Nature | Teaching Scheme | | | Examination Scheme Marks | | | | Total Credits | Total Marks |
|---------------------|-----------------|-------------------------------|--------|-----------------|---|-----------|--------------------------|------------|------------|------------|---------------|-------------|
| | | | | L | T | Lab | Practical | | CA | ESE | | |
| | | | | | | | CA | ESE | | | | |
| Group A | | | | | | | | | | | | |
| T7920 | 070121601 CS | Internship (6 Months) | PD | - | - | - | 195 | 130 | - | - | 13 | 325 |
| T7671 | 070121602 CS | Seminar | PD | - | - | - | 60 | 40 | - | - | 04 | 100 |
| | | Total | - | - | - | - | 255 | 170 | - | - | 17 | 425 |
| OR | | | | | | | | | | | | |
| Group B | | | | | | | | | | | | |
| T7905 | 070121603 CS | Internship(6-8 Weeks) | PD | - | - | 10 | 75 | 50 | - | - | 5 | 125 |
| T7558 | 070121604 CS | Digital Signal Processing | C | 4 | - | - | - | - | 40 | 60 | 4 | 100 |
| T7475 | 070121605 CS | Business Informatics | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7559 | 070121606 CS | Digital Signal Processing Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7048 | 070121607 CS | Project Management | GP | 4 | - | - | - | - | 40 | 60 | 4 | 100 |
| | | Total | | 11 | - | 12 | 85 | 65 | 110 | 165 | 17 | 425 |
| | 070121608 CS | Global Immersion Program | - | - | - | - | - | - | - | - | 13 | 325 |

Note :- For student/s under 'Global Immersion Programme' (070121608 CS), course 'Internship (6 Months)' (070121601CS) will be waived off.

For 2 hours tutorial, there will be 1 hour classroom teaching and 1 hour for projects/self-study / assignments.

Semester VII

| Catalog Course Code | Course Code | Course Title | Nature | Teaching Scheme | | | Examination Scheme Marks | | | | Total Credits | Total Marks |
|--|-----------------|---|--------|-----------------|----------|----------|--------------------------|-----------|------------|------------|---------------|-------------|
| | | | | L | T | Lab | Practical | | CA | ESE | | |
| | | | | | | | CA | ESE | | | | |
| T7493 | 070121701 CS | Distributed Systems | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7517 | 070121702 CS | System Programming | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7507 | 070121703 CS | Object Oriented Analysis and Design | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7138 | 070121704 CS | Network Security | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7494 | 070121705 CS | Distributed Systems Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7479 | 070121706 CS | Computer Graphics and Multimedia | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7508 | 070121707 CS | Object Oriented Analysis Design Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7480 | 070121708 CS | Computer Graphics and Multimedia Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T8000 | 070121709 CS | Service Learning | | 4 | - | - | - | - | 100 | | 4 | 100 |
| Free Elective (Choose any one of the following) | | | | | | | | | | | | |
| T7457 | 070121710 CS | Integrated Water Resources Development and Management | | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7456 | 070121711 CS | Town and Country Planning | | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7499 | 070121712 CS | JAVA | | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7509 | 070121713 CS | Open Source Technologies | | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7474 | 070121714 CS | Basics of Database | | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7574 | 070121715 CS | MATLAB | | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7584 | 070121716 CS | Printed Circuit Board (PCB) Design | | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7616 | 070121717 CS | Fundamentals of Automotive Technology | | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7650 | 070121718 CS | Six Sigma | | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7020 | 070121719 CS | Nanotechnology | | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7394 | 070121720 CS | Smart Material | | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7393 | 070121721 CS | Computer based Statistical Packages | | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| Total | | | | 22 | - | 6 | 30 | 45 | 280 | 270 | 25 | 625 |

For 2 hours tutorial, there will be 1 hour classroom teaching and 1 hour for projects/self-study/assignments.

Semester VIII

| Catalog Course Code | Course Code | Course Title | Nature | Teaching Scheme | | | Examination Scheme Marks | | | | Total Credits | Total Marks |
|--|-------------------------|--|--------|-----------------|----------|-----------|--------------------------|------------|------------|------------|---------------|-------------|
| | | | | L | T | Lab | Practical | | CA | ESE | | |
| | | | | | | | CA | ESE | | | | |
| T7804 | 070121801 CS | B.Tech Project | PD | - | - | 8 | 40 | 60 | - | - | 4 | 100 |
| T7477 | 070121802 CS | Compiler Construction | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7471 | 070121803 CS | Advanced Database Management System | C | 4 | - | - | - | - | 40 | 60 | 4 | 100 |
| T7137 | 070121804 CS | Design Patterns | C | 4 | - | - | - | - | 40 | 60 | 4 | 100 |
| T7139 | 070121805 CS | Software Testing and Quality Assurance | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7478 | 070121806 CS | Compiler Construction Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7472 | 070121807 CS | Advanced Database Management System Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| T7080 | 070121808 CS | Software Testing and Quality Assurance Lab | C | - | - | 2 | 10 | 15 | - | - | 1 | 25 |
| Elective – I (Choose any one of the following) | | | | | | | | | | | | |
| T7473 | 070121809 CS | Artificial Intelligence | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7573 | 070121810 CS | Image Processing and Pattern Recognition | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7078 | 070121811 CS | Software Product Line Management | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| Elective – II (Choose any one of the following) | | | | | | | | | | | | |
| T7568 | 070121812 CS | Embedded Systems | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7476 | 070121813 CS | Cloud Computing | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| T7470 | 070121814 CS | Advanced Computer Architecture | C | 3 | - | - | - | - | 30 | 45 | 3 | 75 |
| Total | | | | 20 | - | 14 | 70 | 105 | 200 | 300 | 27 | 675 |
| | 070121815 CS | Global Immersion Programme | | | | | | | | 400 | 16 | 400 |

Note: for students under Global Immersion Programme (070121815 CS), courses "B.Tech Project" (070121801CS), "Advanced Database Management System" (070121803CS), "Design Patterns" (070121804CS), "Advanced Database Management System Lab" (070121807CS) and "Artificial Intelligence" (070121809CS) will be waived off.

For 2 hours tutorial, there will be 1 hour classroom teaching and 1 hour for projects/self-study/assignments.

L- Lecture , T-Tutorial

HA-Home Assignment

C - Core Course

ES - Engineering Science Course

GP - General Proficiency Course

ID - Inter Disciplinary Course

CA- Continuous Assessment

ESE- End Semester Examination

Practical, CA, ESE are separate heads of Passing

PD - Professional Development Course

Practical external examination may be conducted by alternate internal faculty