

**GRADUATION REQUIREMENT FOR THE ACADEMIC YEAR 2024-25**  
**B.Tech. (Mechanical Engineering) - 2024 Batch**

**A. Pre-Professional Elective Courses**

| Sl. No. | Course Category | Course No.       | Course Name  | Credit Hrs. (Load Distribution) Contact Hrs. |
|---------|-----------------|------------------|--|--|
| 1.      | BSC             | BPP-199          | Mechanics  | 5(3-1-2)6                                    |
| 2.      | BSC             | BPP-201          | Oscillations, Waves and Optics                       | 4(3-1-0)4                                    |
| 3.      | BSC             | BPM-143          | Calculus and Linear Algebra                          | 4(3-1-0)4                                    |
| 4.      | BSC             | BPM-153          | Calculus, ODE & Complex Variables                    | 5(4-1-0)5                                    |
| 5.      | BSC             | BPC-102          | Chemistry I  | 4(3-0-3)6                                    |
| 6.      | BSC             | BHS-186          | English  | 3(2-0-2)4                                    |
| 7.      | ESC             | TEE-104          | Basic Electrical Engineering                         | 5(3-1-2)6                                    |
| 8.      | ESC             | TCE-114          | Engineering Graphics & Design                        | 3(1-0-4)5                                    |
| 9.      | ESC             | TIT-121          | Programming for Problem Solving                      | 4(3-0-2)5                                    |
| 10.     | ESC             | TIP-103          | Workshop Practices                                   | 3(1-0-4)5                                    |
| 11.     | ESC             | TEC-227          | Basic Electronics Engineering                        | 4(3-0-2)5                                    |
| 12.     | ESC             | TME-214          | Machine Drawing                                      | 1(0-0-2)2                                    |
| 13.     | MC              | BHS-188          | Industrial Sociology                                 | 3(3-0-0)3                                    |
| 14.     | MC              | TME-109          | Int. Environmental Engineering & Disaster Management | 3(3-0-0)3                                    |
| 15.     | MC              | NSS-201/ NCC-201 | NSS /NCC   | 0(0-0-4)4                                    |
| 16.     | MC              | NSS-202/ NCC-202 | NSS/ NCC   | 1(0-0-4)4                                    |
| 17.     | MC              | NSS-301/ NCC-301 | NSS / NCC  | 0(0-0-4)4                                    |
| 18.     | MC              | NSS-302/ NCC-302 | NSS / NCC  | 1(0-0-4)4                                    |
| 19.     | MC              | TWP-101          | Work Programme                                       | 1(0-0-3)3                                    |
| 20.     | MC              | TME-191          | Practical Training I                                 | 2 weeks                                      |
| 21.     | MC              | TME-291          | Practical Training II                                | 2 weeks                                      |
| 22.     | MC              | TME-391          | Practical Training III                               | 4 weeks                                      |
| 23.     | ESC             | BPM-242          | PDE, Probability and Statistics                      | 5(4-1-0)5                                    |
| 24.     | MC              | TIC-100          | Induction Programme                                  | 2-3 weeks                                    |
| 25.     | ESC             | TIP-206          | Manufacturing Science –I                             | 4(3-0-3)6                                    |
| 26.     | ESC             | TIP-308          | Manufacturing Technology                             | 4(3-0-2)5                                    |
| 27.     | ESC             | TIP-359          | Managerial Economics                                 | 3(3-0-0)3                                    |

**B. Professional Core Courses**

| Sl. No. | Course Category | Course No. | Course Name                    | Credit Hrs. |
|---------|-----------------|------------|--------------------------------|-------------|
| 1.      | PCC             | TME-201    | Engineering Mechanics          | 4(3-1-0)4   |
| 2.      | PCC             | TME-210    | Fluid Mechanics                | 4(3-1-2)6   |
| 3.      | PCC             | TME-206    | Instrumentation & Control      | 4(3-0-2)5   |
| 4.      | PCC             | TME-216    | Mechanics of Solids            | 4(3-1-2)6   |
| 5.      | PCC             | TME-218    | Engineering Thermodynamics     | 4(3-1-0)4   |
| 6.      | PCC             | TME-255    | Material Science & Engineering | 4(3-0-2)5   |

|     |         |           |   |           |
|-----|---------|-----------|---|-----------|
| 7.  | PCC     | TME-303   | Refrigeration and Air Conditioning            | 4(3-1-2)6 |
| 8.  | PCC     | TME-318   | Design of Machine Elements                    | 4(3-1-2)6 |
| 9.  | PCC     | TME-424   | Fluid Machinery & Systems                     | 4(3-1-2)6 |
| 10. | PCC     | TME-322   | Kinematics of Machines                        | 3(2-1-2)6 |
| 11. | PCC     | TME-323   | Theory of Machines                            | 4(3-0-2)5 |
| 12. | PCC     | TME-325   | Heat Transfer                                 | 4(3-1-2)6 |
| 13. | PCC     | TME-319   | Internal Combustion Engines                   | 4(3-1-2)6 |
| 14. | PCC     | TME-416   | Advanced Solid Mechanics                      | 4(3-1-0)4 |
| 15. | PCC     | TME-224   | Numerical Techniques for Mechanical Engineers | 3(2-0-2)4 |
| 16. | Project | TME-495 A | Project I                                     | 4(0-0-8)  |
| 17. | Project | TME-495 B | Project II                                    | 8(0-0-16) |

### **C. List of Professional Elective Courses**

| <b>Sl. No.</b> | <b>Course Category</b> | <b>Course No.</b> | <b>Course Name</b>                             | <b>Credit Hrs. (Load Distribution) Contact Hrs.</b> |
|----------------|------------------------|-------------------|--|---|
| 1              | PEL                    | TME-457           | Gas Dynamic & Jet Propulsion                   | 3(2-1-2)5   |
| 2              | PEL                    | TME-458           | Finite Element Analysis                        | 3(2-1-2)5   |
| 3              | PEL                    | TME-444           | Mechanical Vibrations                          | 3(2-1-2)5   |
| 4              | PEL                    | TME-459           | Advance Machine Design                         | 3(2-1-2)5   |
| 5              | PEL                    | TME-465           | Experimental Stress Analysis                   | 3(2-1-2)5   |
| 6              | PEL                    | TME-466           | Non Conventional Energy Source And Systems     | 3(2-1-2)5   |
| 7              | PEL                    | TME-430           | Composite Materials                            | 3(2-1-2)5   |
| 8              | PEL                    | TME-431           | Mechatronics Systems                           | 3(2-1-2)5   |
| 9              | PEL                    | TME-463           | Computer Aided Design                          | 3(2-1-2)5   |
| 10             | PEL                    | TME-464           | Automobile Engineering                         | 3(2-1-2)5   |
| 11             | PEL                    | TME-467           | Power Plant Engineering                        | 3(2-1-2)5   |
| 12             | PEL                    | TME-468           | Solar Energy Thermal Process                   | 3(2-1-2)5   |
| 13             | PEL                    | TME-469           | Experimental Methods in Thermal Science        | 3(2-1-2)5   |
| 14             | PEL                    | TME-470           | Computational Fluid Dynamics and Heat Transfer | 3(2-1-2)5   |
| 15             | PEL                    | TME-472           | Fatigue, Creep and Fracture                    | 3(2-1-2)5   |
| 16             | PEL                    | TME-474           | Tribology                                      | 3(2-1-2)5   |
| 17             | PEL                    | TME-476           | Design of Refrigeration Systems                | 3(2-1-2)5   |
| 18             | PEL                    | TME-475           | Nano Engineering Materials                     | 3(2-1-2)5   |
| 19             | PEL                    | TME-480           | Product Innovation and Design                  | 3(2-1-2)5   |

## SEMESTER WISE LOAD DISTRIBUTION FOR 2024 BATCH

| Sl. No.                     | Course Category | Course No.          | Course Name                                    | Credit Hrs. (Load Dist.) Contact Hr |
|-----------------------------|-----------------|---------------------|--|-------------------------------------|
| <b><u>I Semester</u></b>    |                 |                     |  |                                     |
| 1                           | ESC             | TIT-121             | Programming for Problem Solving                | 4(3-0-2)5                           |
| 2                           | BSC             | BPM-143             | Calculus & Linear Algebra                      | 4(3-1-0)4                           |
| 3                           | ESC             | TEE-104             | Basic Electrical Engineering                   | 5(3-1-2)6                           |
| 4                           | BSC             | BPC-102             | Chemistry I                                    | 4(3-0-3)6                           |
| 5                           | MC              | TWP-101             | Work Programme                                 | 1(0-0-3)3                           |
| 6                           | MC              | TIC-100             | Induction Programme                            | 2-3 weeks                           |
| 7                           | MC              | TSW-109             | Int. Environmental Engg. & Disaster Management | 3(3-0-0)3                           |
|                             |                 |                     |  | Total Credits: 21                   |
| <b><u>II. Semester</u></b>  |                 |                     |  |                                     |
| 1                           | BSC             | BPM-153             | Calculus ODE & Complex Variables               | 5(4-1-0)5                           |
| 2                           | ESC             | TIP-103             | Workshop Practices                             | 3(1-0-4)5                           |
| 3                           | ESC             | TCE-114             | Engineering Graphics & Design                  | 3(1-0-4)5                           |
| 4                           | BSC             | BHS-186             | English  | 3(2-0-2)4                           |
| 5                           | BSC             | BPP-199             | Mechanics                                      | 5(3-1-2)6                           |
| 6                           | MC              | BHS-188             | Industrial Sociology                           | 3(3-0-0)3                           |
| 7                           | MC              | TME-191             | Practical Training I                           | 2 Weeks                             |
|                             |                 |                     |  | Total Credits: 22                   |
| <b><u>III. Semester</u></b> |                 |                     |  |                                     |
| 1                           | BSC             | BPP-201             | Oscillations, Waves and Optics                 | 4(3-1-0)4                           |
| 2                           | BSC             | BPM-242             | PDE, Probability & Statistics                  | 5(4-1-0)5                           |
| 3                           | ESC             | TEC-227             | Basic Electronics Engineering                  | 4(3-0-2)5                           |
| 4                           | PCC             | TME-201             | Engineering Mechanics                          | 4(3-1-0)4                           |
| 5                           | PCC             | TME-255             | Material Science & Engineering                 | 4(3-0-2)5                           |
| 6                           | MC              | NSS-201/<br>NCC-201 | NSS/NCC  | 0(0-0-4)4                           |
|                             |                 |                     |  | Total Credits: 21                   |
| <b><u>IV. Semester</u></b>  |                 |                     |  |                                     |
| 1                           | PCC             | TME-210             | Fluid Mechanics                                | 4(3-1-2)6                           |
| 2                           | ESC             | TIP-206             | Manufacturing Science-I                        | 4(3-0-3)6                           |
| 3                           | PCC             | TME-224             | Numerical Techniques for Mechanical Engineers  | 3(2-0-2)4                           |
| 4                           | PCC             | TME-216             | Mechanics of Solids                            | 4(3-1-2)6                           |
| 5                           | PCC             | TME-218             | Engineering Thermodynamics                     | 4(3-1-0)4                           |
| 6                           | PCC             | TME-206             | Instrumentation & Control                      | 4(3-0-2)5                           |
| 7                           | PCC             | TME-214             | Machine Drawing                                | 1(0-0-2)2                           |
| 8                           | MC              | TME-291             | Practical Training II                          | 2Weeks                              |
| 9                           | MC              | NSS-202/<br>NCC-202 | NSS/NCC  | 1(0-0-4)4                           |
|                             |                 |                     |  | Total Credits: 25                   |

| <b><u>V. Semester</u></b>    |      |                     |                                    |                   |
|------------------------------|------|---------------------|------------------------------------|-------------------|
| 1                            | PCC  | TME-325             | Heat Transfer                      | 4(3-1-2)6         |
| 2                            | PCC  | TME-319             | Internal Combustion Engines        | 4(3-1-2)6         |
| 3                            | PCC  | TME-322             | Kinematics of Machines             | 3(2-1-2)6         |
| 4                            | ESC  | TIP-308             | Manufacturing Technology           | 4(3-0-2)5         |
| 5                            | PEL  | TME-                | Elective I/MOOC course-1           | 3(2-1-2)5         |
| 6                            | OEL  |                     | Open Elective I/MOOC course-2      | 3(3-0-0)3         |
| 7                            | MC   | NSS-301/<br>NCC-301 | NSS/NCC                            | 0(0-0-4)4         |
|                              |      |                     |                                    | Total Credits: 21 |
| <b><u>VI. Semester</u></b>   |      |                     |                                    |                   |
| 1                            | PCC  | TME-323             | Theory of Machines                 | 4(3-0-2)5         |
| 2                            | PCC  | TME-318             | Design of Machine Elements         | 4(3-1-2)6         |
| 3                            | PCC  | TME-303             | Refrigeration and Air Conditioning | 4(3-1-2)6         |
| 4                            | ESC  | TIP-359             | Managerial Economics               | 3(3-0-0)3         |
| 5                            | PEL  | TME-                | Elective II/MOOC course-1          | 3(2-1-2)5         |
| 6                            | OEL  |                     | Open Elective II/MOOC course-2     | 3(3-0-0)3         |
| 7                            | MC   | NSS-302/<br>NCC-302 | NSS/ NCC                           | 1(0-0-4)4         |
| 8                            | PT   | TME-391             | Practical Training III             | 4Weeks            |
|                              |      |                     |                                    | Total Credits: 22 |
| <b><u>VII. Semester</u></b>  |      |                     |                                    |                   |
| 1                            | PCC  | TME-424             | Fluid Machinery & Systems          | 4(3-1-2)6         |
| 2                            | PCC  | TME-416             | Advanced Solid Mechanics           | 4(3-1-0)4         |
| 3                            | PEL  | TME-                | Elective III                       | 3(2-1-2)5         |
| 4                            | PEL  | TME-                | Elective IV                        | 3(2-1-2)5         |
| 5                            | OEL  |                     | Open Elective III                  | 3(3-0-0)3         |
| 6                            | Proj | TME-495 A           | Project I                          | 4(0-0-8)          |
|                              |      |                     |                                    | Total Credits: 21 |
| <b><u>VIII. Semester</u></b> |      |                     |                                    |                   |
| 1                            | PEL  | TME-                | Elective V                         | 3(2-1-2)5         |
| 2                            | PEL  | TME-                | Elective VI                        | 3(2-1-2)5         |
| 3                            | OEL  |                     | Open Elective IV                   | 3(3-0-0)3         |
| 4                            | Proj | TME- 495 B          | Project II                         | 8(0-0-16)         |
|                              |      |                     |                                    | Total Credits: 17 |

**Total Credits Degree Programme: 170**

*Note:*

1. A student can opt to offer at the most 02 MOOC courses in third year of his/her B. Tech. degree program; one in lieu of Program Elective and the other in lieu of Open Elective.
2. Those students who have not taken Hindi at High School or Equivalent level will also require to register the course BHS-173 Elementary Hindi 2(2-1-0)
3. Students can register either in NSS or NCC.
4. Semester wise interchange in the course curriculum may be done as per the availability of the experts and lab facilities.

**Graduation requirement for Diploma Holders admitted to  
2<sup>nd</sup> Year B. Tech. (Mechanical Engineering) - 2025 Batch**

**A. Pre-Professional Courses**

| <b>Sl. No.</b> | <b>Course Category</b> | <b>Course No.</b>   | <b>Course Name</b>              | <b>Credit Hrs. (Load Distribution)<br/>Contact Hrs.</b> |
|----------------|------------------------|---------------------|---------------------------------|---|
| 1.             | BSC                    | BPP-201             | Oscillations, Waves and Optics  | 4(3-1-0)4   |
| 2.             | ESC                    | TEC-227             | Basic Electronics Engineering   | 4(3-0-2)5   |
| 3.             | ESC                    | TME-214             | Machine Drawing                 | 1(0-0-2)2   |
| 4.             | MC                     | NSS-201/<br>NCC-201 | NSS /NCC                        | 0(0-0-4)4   |
| 5.             | MC                     | NSS-202/<br>NCC-202 | NSS/ NCC                        | 1(0-0-4)4   |
| 6.             | MC                     | NSS-301/<br>NCC-301 | NSS / NCC                       | 0(0-0-4)4   |
| 7.             | MC                     | NSS-302/<br>NCC-302 | NSS / NCC                       | 1(0-0-4)4   |
| 8.             | MC                     | TME-291             | Practical Training II           | 2 weeks   |
| 9.             | MC                     | TME-391             | Practical Training III          | 4 weeks   |
| 10.            | ESC                    | BPM-242             | PDE, Probability and Statistics | 5(4-1-0)5   |
| 11.            | ESC                    | TIP-206             | Manufacturing Science-I         | 4(3-0-3)6   |
| 12.            | ESC                    | TIP-308             | Manufacturing Technology        | 4(3-0-2)5   |
| 13.            | ESC                    | TIP-359             | Managerial Economics            | 3(3-0-0)3   |
| 14.            | MC                     | TWP-101             | Work Programme                  | 1(0-0-3)3   |

**B. Professional Core Courses**

| <b>Sl. No.</b> | <b>Course Category</b> | <b>Course No.</b> | <b>Course Name</b>                            | <b>Credit Hrs. (Load Distribution)<br/>Contact Hrs.</b> |
|----------------|------------------------|-------------------|---|---|
| 1.             | PCC                    | TME-201           | Engineering Mechanics                         | 4(3-1-0)4   |
| 2.             | PCC                    | TME-210           | Fluid Mechanics                               | 4(3-1-2)6   |
| 3.             | PCC                    | TME-206           | Instrumentation & Control                     | 4(3-0-2)5   |
| 4.             | PCC                    | TME-216           | Mechanics of Solids                           | 4(3-1-2)6   |
| 5.             | PCC                    | TME-218           | Engineering Thermodynamics                    | 4(3-1-0)4   |
| 6.             | PCC                    | TME-255           | Material Science & Engineering                | 4(3-0-2)5   |
| 7.             | PCC                    | TME-303           | Refrigeration and Air Conditioning            | 4(3-1-2)6   |
| 8.             | PCC                    | TME-318           | Design of Machine Elements                    | 4(3-1-2)6   |
| 9.             | PCC                    | TME-424           | Fluid Machinery & Systems                     | 4(3-1-2)6   |
| 10.            | PCC                    | TME-322           | Kinematics of Machines                        | 3(2-1-2)5   |
| 11.            | PCC                    | TME-323           | Theory of Machines                            | 4(3-0-2)5   |
| 12.            | PCC                    | TME-325           | Heat Transfer                                 | 4(3-1-2)6   |
| 13.            | PCC                    | TME-319           | Internal Combustion Engines                   | 4(3-1-2)6   |
| 14.            | PCC                    | TME-416           | Advanced Solid Mechanics                      | 4(3-1-0)4   |
| 15.            | PCC                    | TME-224           | Numerical Techniques for Mechanical Engineers | 3(2-0-2)4   |
| 16.            | Project                | TME-495 A         | Project I                                     | 4(0-0-8)  |
| 17.            | Project                | TME-495 B         | Project II                                    | 8(0-0-16)   |

**C. Professional Elective Courses**

| <b>Sl. No.</b> | <b>Course Category</b> | <b>Course No.</b> | <b>Course Name</b>           | <b>Credit Hrs. (Load Distribution)<br/>Contact Hrs.</b> |
|----------------|------------------------|-------------------|------------------------------|---|
| 1              | PEL                    | TME-457           | Gas Dynamic & Jet Propulsion | 3(2-1-2)5   |

|    |     |         |  |           |
|----|-----|---------|--|-----------|
| 2  | PEL | TME-458 | Finite Element Analysis                        | 3(2-1-2)5 |
| 3  | PEL | TME-444 | Mechanical Vibrations                          | 3(2-1-2)5 |
| 4  | PEL | TME-459 | Advance Machine Design                         | 3(2-1-2)5 |
| 5  | PEL | TME-465 | Experimental Stress Analysis                   | 3(2-1-2)5 |
| 6  | PEL | TME-466 | Non Conventional Energy Source And Systems     | 3(2-1-2)5 |
| 7  | PEL | TME-430 | Composite Materials                            | 3(2-1-2)5 |
| 8  | PEL | TME-431 | Mechatronics Systems                           | 3(2-1-2)5 |
| 9  | PEL | TME-463 | Computer Aided Design                          | 3(2-1-2)5 |
| 10 | PEL | TME-464 | Automobile Engineering                         | 3(2-1-2)5 |
| 11 | PEL | TME-467 | Power Plant Engineering                        | 3(2-1-2)5 |
| 12 | PEL | TME-468 | Solar Energy Thermal Process                   | 3(2-1-2)5 |
| 13 | PEL | TME-469 | Experimental Methods in Thermal Science        | 3(2-1-2)5 |
| 14 | PEL | TME-470 | Computational Fluid Dynamics and Heat Transfer | 3(2-1-2)5 |
| 15 | PEL | TME-472 | Fatigue, Creep and Fracture                    | 3(2-1-2)5 |
| 16 | PEL | TME-474 | Tribology                                      | 3(2-1-2)5 |
| 17 | PEL | TME-476 | Design of Refrigeration Systems                | 3(2-1-2)5 |
| 18 | PEL | TME-475 | Nano Engineering Materials                     | 3(2-1-2)5 |
| 19 | PEL | TME-480 | Product Innovation and Design                  | 3(2-1-2)5 |

All other courses of 400 series of any other department of College of Technology subject to the fulfilment of Pre-requisite of the course.

**SEMESTERWISE COURSE DISTRIBUTION**  
**for Diploma Holders admitted to 2<sup>nd</sup> Year**  
**B. Tech. (Mechanical Engineering) - 2025 Batch**

| Sl. No.                     | Course Category | Course No.          | Course Name                                   | Credit Hrs.<br>(Load Dist.)<br>Contact Hr |
|-----------------------------|-----------------|---------------------|---|---|
| <b><u>I. Semester</u></b>   |                 |                     |   |   |
| 1                           | BSC             | BPP-201             | Oscillations, Waves and Optics                | 4(3-1-0)4                                 |
| 2                           | BSC             | BPM-242             | PDE, Probability & Statistics                 | 5(4-1-0)5                                 |
| 3                           | ESC             | TEC-227             | Basic Electronics Engineering                 | 4(3-0-2)5                                 |
| 4                           | PCC             | TME-201             | Engineering Mechanics                         | 4(3-1-0)4                                 |
| 5                           | PCC             | TME-255             | Material Science & Engineering                | 4(3-0-2)5                                 |
| 6                           | MC              | NSS-201/<br>NCC-201 | NSS/NCC                                       | 0(0-0-4)4                                 |
| 7                           | MC              | TWP-101             | Work programme                                | 1(0-0-3)3                                 |
|                             |                 |                     |   | Total Credits: 22                         |
| <b><u>II. Semester</u></b>  |                 |                     |   |   |
| 1                           | PCC             | TME-210             | Fluid Mechanics                               | 4(3-1-2)6                                 |
| 2                           | ESC             | TIP-206             | Manufacturing Science-I                       | 4(3-0-3)6                                 |
| 3                           | PCC             | TME-224             | Numerical Techniques for Mechanical Engineers | 3(2-0-2)4                                 |
| 4                           | PCC             | TME-216             | Mechanics of Solids                           | 4(3-1-2)6                                 |
| 5                           | PCC             | TME-218             | Engineering Thermodynamics                    | 4(3-1-0)4                                 |
| 6                           | PCC             | TME-206             | Instrumentation & Control                     | 4(3-0-2)5                                 |
| 7                           | PCC             | TME-214             | Machine Drawing                               | 1(0-0-2)2                                 |
| 8                           | MC              | TME-291             | Practical Training II                         | 2Weeks                                    |
| 9                           | MC              | NSS-202/<br>NCC-202 | NSS/NCC                                       | 1(0-0-4)4                                 |
|                             |                 |                     |   | Total Credits: 25                         |
| <b><u>III. Semester</u></b> |                 |                     |   |   |
| 1                           | PCC             | TME- 325            | Heat Transfer                                 | 4(3-1-2)6                                 |
| 2                           | PCC             | TME-319             | Internal Combustion Engines                   | 4(3-1-2)6                                 |
| 3                           | PCC             | TME-322             | Kinematics of Machines                        | 3(2-1-2)5                                 |
| 4                           | ESC             | TIP-308             | Manufacturing Technology                      | 4(3-0-2)5                                 |
| 5                           | PEL             | TME-                | Elective I                                    | 3(2-1-2)5                                 |
| 6                           | OEL             |                     | Open Elective I                               | 3(3-0-0)3                                 |
| 7                           | MC              | NSS-301/<br>NCC-301 | NSS/NCC                                       | 0(0-0-4)4                                 |
|                             |                 |                     |   | Total Credits: 21                         |
| <b><u>IV. Semester</u></b>  |                 |                     |   |   |
| 1                           | PCC             | TME-323             | Theory of Machines                            | 4(3-0-2)5                                 |
| 2                           | PCC             | TME-318             | Design of Machine Elements                    | 4(3-1-2)6                                 |
| 3                           | PCC             | TME-303             | Refrigeration and Air Conditioning            | 4(3-1-2)6                                 |
| 4                           | ESC             | TIP-359             | Managerial Economics                          | 3(3-0-0)3                                 |
| 5                           | PEL             | TME-                | Elective II                                   | 3(2-1-2)5                                 |
| 6                           | OEL             |                     | Open Elective II                              | 3(3-0-0)3                                 |
| 7                           | MC              | NSS-302/<br>NCC-302 | NSS/ NCC                                      | 1(0-0-4)4                                 |
| 8                           | PT              | TME-391             | Practical Training III                        | 4Weeks                                    |
|                             |                 |                     |   | Total Credits: 22                         |

| <b>V. Semester</b>  |      |            |                           |                   |
|---------------------|------|------------|---------------------------|-------------------|
| 1                   | PCC  | TME-424    | Fluid Machinery & Systems | 4(3-1-2)6         |
| 2                   | PCC  | TME-416    | Advanced Solid Mechanics  | 4(3-1-0)4         |
| 3                   | PEL  | TME-       | Elective III              | 3(2-1-2)5         |
| 4                   | PEL  | TME-       | Elective IV               | 3(2-1-2)5         |
| 5                   | OEL  |            | Open Elective III         | 3(3-0-0)3         |
| 6                   | Proj | TME-495 A  | Project I                 | 4(0-0-8)          |
|                     |      |            |                           | Total Credits: 21 |
| <b>VI. Semester</b> |      |            |                           |                   |
| 1                   | PEL  | TME-       | Elective V                | 3(2-1-2)5         |
| 2                   | PEL  | TME-       | Elective VI               | 3(2-1-2)5         |
| 3                   | OEL  |            | Open Elective IV          | 3(3-0-0)3         |
| 4                   | Proj | TME- 495 B | Project II                | 8(0-0-16)         |
|                     |      |            |                           | Total Credits: 17 |

**Total Credits Degree Programme: 128**

*Note:*

1. A student can opt to offer at the most 02 MOOC courses in third year of his/her B. Tech. degree program; one in lieu of Program Elective and the other in lieu of Open Elective.
2. Those students who have not taken Hindi at High School or Equivalent level will also require to register the course BHS-173 Elementary Hindi 2(2-1-0)
3. Students can register either in NSS or NCC.
4. Semester wise interchange in the course curriculum may be done as per the availability of the experts and lab facilities.