

| Programme Core | Programme Elective | University Core | University Elective | Total Credits |
|----------------|--------------------|-----------------|---------------------|---------------|
| 60             | 38                 | 70              | 12                  | 180           |

| Course Code               | Course Title                                          | Course Type        | L        | T        | P        | J        | C        |
|---------------------------|-------------------------------------------------------|--------------------|----------|----------|----------|----------|----------|
| <b>PROGRAMME CORE</b>     |                                                       |                    |          |          |          |          |          |
| EEE1001                   | Basic Electrical and Electronics Engineering          | ETL                | 2        | 0        | 2        | 0        | 3        |
| MAT2002                   | Applications of Differential and Difference Equations | ETL                | 3        | 0        | 2        | 0        | 4        |
| MAT3003                   | Complex Variables and Partial Differential Equations  | TH                 | 3        | 1        | 0        | 0        | 4        |
| MAT3005                   | Applied Numerical Methods                             | TH                 | 3        | 1        | 0        | 0        | 4        |
| MEE1001                   | Engineering Drawing                                   | ETL                | 1        | 0        | 4        | 0        | 3        |
| MEE1005                   | Materials Engineering and Technology                  | ETL                | 3        | 0        | 2        | 0        | 4        |
| MEE1014                   | Industrial Engineering and Management                 | TH                 | 3        | 0        | 0        | 0        | 3        |
| MEE1024                   | Operations Research                                   | TH                 | 2        | 2        | 0        | 0        | 3        |
| MEE1031                   | Theory of Metal Casting and Joining                   | ETP                | 3        | 0        | 0        | 4        | 4        |
| MEE1032                   | Mechanics of Solids and Fluids                        | ETL                | 3        | 0        | 2        | 0        | 4        |
| MEE1033                   | Thermodynamics and Heat Transfer                      | ETL                | 2        | 2        | 2        | 0        | 4        |
| MEE1034                   | Statistical Quality Control                           | ETP                | 2        | 0        | 0        | 4        | 3        |
| MEE2001                   | Machine Drawing                                       | ETL                | 1        | 0        | 4        | 0        | 3        |
| MEE2012                   | Manufacturing Automation                              | ETL                | 3        | 0        | 2        | 0        | 4        |
| MEE2031                   | Theory of Metal Cutting and Forming                   | ETL                | 3        | 0        | 2        | 0        | 4        |
| MEE2032                   | Kinematics and Dynamics of Machinery                  | TH                 | 2        | 2        | 0        | 0        | 3        |
| MEE3012                   | Computer Aided Manufacturing                          | ETL                | 2        | 0        | 2        | 0        | 3        |
| <b>Course Code</b>        | <b>Course Title</b>                                   | <b>Course Type</b> | <b>L</b> | <b>T</b> | <b>P</b> | <b>J</b> | <b>C</b> |
| <b>PROGRAMME ELECTIVE</b> |                                                       |                    |          |          |          |          |          |
| EEE2007                   | Electronics and Microcontrollers                      | ETP                | 2        | 0        | 0        | 4        | 3        |
| EEE3001                   | Control Systems                                       | ETL                | 3        | 0        | 2        | 0        | 4        |
| MEE1015                   | Total Quality Management and Reliability              | TH                 | 3        | 0        | 0        | 0        | 3        |
| MEE1016                   | Lean Enterprises and New Manufacturing Technology     | TH                 | 3        | 0        | 0        | 0        | 3        |
| MEE1018                   | Facilities and Process Planning                       | TH                 | 3        | 0        | 0        | 0        | 3        |
| MEE1020                   | Enterprise Resource Planning                          | ETP                | 2        | 0        | 0        | 4        | 3        |
| MEE1027                   | Instrumentation and Control Engineering               | ETL                | 3        | 0        | 2        | 0        | 4        |
| MEE1030                   | Robotics                                              | ETL                | 2        | 0        | 2        | 0        | 3        |
| MEE2008                   | Product Design for Manufacturing                      | ETP                | 2        | 0        | 0        | 4        | 3        |
| MEE2013                   | Modelling and Simulation of Manufacturing Systems     | ETP                | 3        | 0        | 0        | 4        | 4        |
| MEE2015                   | Non Destructive Testing                               | ETL                | 3        | 0        | 2        | 0        | 4        |
| MEE2016                   | Rapid Manufacturing Technologies                      | ETP                | 2        | 0        | 0        | 4        | 3        |
| MEE2033                   | Production Planning and Control                       | TH                 | 3        | 0        | 0        | 0        | 3        |
| MEE2034                   | Industrial Economics                                  | TH                 | 3        | 0        | 0        | 0        | 3        |
| MEE2035                   | Logistics and Supply Chain Management                 | TH                 | 3        | 0        | 0        | 0        | 3        |

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|-------------------------------------------------------------------|--------------------------------------------------|-------------|---|---|---|---|----|
| MEE2036                                                           | Industrial Corrosion and Tribology               | ETP         | 3 | 0 | 0 | 4 | 4  |
| MEE2037                                                           | Agile Manufacturing                              | TH          | 3 | 0 | 0 | 0 | 3  |
| MEE3002                                                           | Finite Element Analysis                          | ETL         | 2 | 2 | 2 | 0 | 4  |
| MEE3003                                                           | Engineering Failure Analysis                     | ETP         | 3 | 0 | 0 | 4 | 4  |
| MEE3013                                                           | Laser processing                                 | TH          | 3 | 0 | 0 | 0 | 3  |
| MEE3014                                                           | Engineering Metrology                            | ETL         | 2 | 0 | 2 | 0 | 3  |
| MEE3019                                                           | Advanced Manufacturing Management                | TH          | 3 | 0 | 0 | 0 | 3  |
| MEE4001                                                           | Tool Design                                      | ETP         | 3 | 0 | 0 | 4 | 4  |
| MEE4002                                                           | Advanced Machining Processes                     | ETP         | 2 | 0 | 0 | 4 | 3  |
| MEE4003                                                           | Micro and Nano Machining                         | TH          | 3 | 0 | 0 | 0 | 3  |
| MEE4007                                                           | Design of Transmission Systems                   | ETP         | 2 | 2 | 0 | 4 | 4  |
| Course Code                                                       | Course Title                                     | Course Type | L | T | P | J | C  |
| <b>UNIVERSITY CORE</b>                                            |                                                  |             |   |   |   |   |    |
| CHY1002                                                           | Environmental Sciences                           | TH          | 3 | 0 | 0 | 0 | 3  |
| CHY1701                                                           | Engineering Chemistry                            | ETL         | 3 | 0 | 2 | 0 | 4  |
| CSE1001                                                           | Problem Solving and Programming                  | LO          | 0 | 0 | 6 | 0 | 3  |
| CSE1002                                                           | Problem Solving and Object Oriented Programming  | LO          | 0 | 0 | 6 | 0 | 3  |
| ENG1011                                                           | English for Engineers                            | LO          | 0 | 0 | 4 | 0 | 2  |
| HUM1021                                                           | Ethics and Values                                | TH          | 2 | 0 | 0 | 0 | 2  |
| MAT1011                                                           | Calculus for Engineers                           | ETL         | 3 | 0 | 2 | 0 | 4  |
| MAT2001                                                           | Statistics for Engineers                         | ETL         | 2 | 1 | 2 | 0 | 4  |
| MEE3099                                                           | Industrial Internship                            | PJT         | 0 | 0 | 0 | 0 | 2  |
| MEE3999                                                           | Technical Answers for Real World Problems (TARP) | ETP         | 1 | 0 | 0 | 8 | 3  |
| MEE4098                                                           | Comprehensive Examination                        | PJT         | 0 | 0 | 0 | 0 | 2  |
| MEE4099                                                           | Capstone Project                                 | PJT         | 0 | 0 | 0 | 0 | 20 |
| MGT1022                                                           | Lean Start-up Management                         | ETP         | 1 | 0 | 0 | 4 | 2  |
| PHY1701                                                           | Engineering Physics                              | ETL         | 3 | 0 | 2 | 0 | 4  |
| PHY1999                                                           | Introduction to Innovative Projects              | ETP         | 1 | 0 | 0 | 4 | 2  |
| EXC4097                                                           | Co-Extra Curricular Basket                       | CDB         | 0 | 0 | 0 | 0 | 2  |
| EXC1001 - Service to the Society - ECA                            |                                                  |             |   |   |   |   |    |
| EXC1002 - Youth Red Cross - ECA                                   |                                                  |             |   |   |   |   |    |
| EXC1002 - Red Cross - ECA                                         |                                                  |             |   |   |   |   |    |
| EXC1003 - ABCD-AnyBody Can Dance - ECA                            |                                                  |             |   |   |   |   |    |
| EXC1004 - Entrepreneurs Cell - ECA                                |                                                  |             |   |   |   |   |    |
| EXC1004 - Building Entrepreneurship Competencies and Skills - ECA |                                                  |             |   |   |   |   |    |
| EXC1005 - Energy and Environmental Protection Club - ECA          |                                                  |             |   |   |   |   |    |
| EXC1006 - Music - The Art of Culture - ECA                        |                                                  |             |   |   |   |   |    |
| EXC1007 - Sports for Healthy Life - ECA                           |                                                  |             |   |   |   |   |    |
| EXC1008 - Instrumentation for Engineers - ECA                     |                                                  |             |   |   |   |   |    |

| Course Code | Course Title                                                    | Course Type | L | T | P | J | C |
|-------------|-----------------------------------------------------------------|-------------|---|---|---|---|---|
| EXC1009     | - Debating Skills - ECA                                         |             |   |   |   |   |   |
| EXC1010     | - Mobility Engineering- Land, Air and Sea - ECA                 |             |   |   |   |   |   |
| EXC1011     | - Skills in Competitive Coding - ECA                            |             |   |   |   |   |   |
| EXC1012     | - Basics of Space Sciences - ECA                                |             |   |   |   |   |   |
| EXC1013     | - Roadmap to a Connected World - ECA                            |             |   |   |   |   |   |
| EXC1014     | - Dramatics Club - ECA                                          |             |   |   |   |   |   |
| EXC1014     | - The Art of Acting - ECA                                       |             |   |   |   |   |   |
| EXC1016     | - ASCE - VIT Student Chapter - ECA                              |             |   |   |   |   |   |
| EXC1017     | - Health Club - ECA                                             |             |   |   |   |   |   |
| EXC1017     | - Health and Wellness - ECA                                     |             |   |   |   |   |   |
| EXC1018     | - IETE - Student Chapter - ECA                                  |             |   |   |   |   |   |
| EXC1018     | - Electronics and Telecommunication for Skill Development - ECA |             |   |   |   |   |   |
| EXC1019     | - The Fine Arts Club - ECA                                      |             |   |   |   |   |   |
| EXC1019     | - Basic Art and Craft Techniques - ECA                          |             |   |   |   |   |   |
| EXC1020     | - Skills on Creativity - ECA                                    |             |   |   |   |   |   |
| EXC1021     | - Computer Society of India - ECA                               |             |   |   |   |   |   |
| EXC1021     | - Computer in Society - ECA                                     |             |   |   |   |   |   |
| EXC1023     | - Hindi Literary Association - ECA                              |             |   |   |   |   |   |
| EXC1023     | - Hindi Arts and Literature - ECA                               |             |   |   |   |   |   |
| EXC1025     | - Toastmasters International - VIT Chapter - ECA                |             |   |   |   |   |   |
| EXC1027     | - Power and Energy for Societal Development - ECA               |             |   |   |   |   |   |
| EXC1028     | - VIT Community Radio - ECA                                     |             |   |   |   |   |   |
| EXC1030     | - Make a Difference - ECA                                       |             |   |   |   |   |   |
| EXC1030     | - Child Empowerment and Development - ECA                       |             |   |   |   |   |   |
| EXC1032     | - Fifth Pillar - ECA                                            |             |   |   |   |   |   |
| EXC1032     | - Building Blocks of Democracy - ECA                            |             |   |   |   |   |   |
| EXC1033     | - Robotics for Engineers - ECA                                  |             |   |   |   |   |   |
| EXC1034     | - Techloop - ECA                                                |             |   |   |   |   |   |
| EXC1035     | - Association for Computing Machinery - ECA                     |             |   |   |   |   |   |
| EXC1035     | - Computing in Science and Engineering - ECA                    |             |   |   |   |   |   |
| EXC1049     | - Innovation for Engineering Applications - ECA                 |             |   |   |   |   |   |
| EXC1054     | - The Art and Skills of Photography - ECA                       |             |   |   |   |   |   |
| EXC1061     | - Skill Development in Manufacturing - ECA                      |             |   |   |   |   |   |
| EXC1068     | - Discussion through Media - ECA                                |             |   |   |   |   |   |
| EXC1069     | - Fep-Si - ECA                                                  |             |   |   |   |   |   |
| EXC1070     | - Working to Engineer a Better World - ECA                      |             |   |   |   |   |   |
| EXC1071     | - Culinary Crusade - ECA                                        |             |   |   |   |   |   |
| EXC1072     | - VIT Film Society - ECA                                        |             |   |   |   |   |   |
| EXC1072     | - The Art and Skills of Film Making - ECA                       |             |   |   |   |   |   |
| EXC1075     | - The Institution of Engineers (India) - ECA                    |             |   |   |   |   |   |
| EXC1075     | - ENGINEERING SKILLSET - ECA                                    |             |   |   |   |   |   |
| EXC1076     | - Tamil Arts and Literature - ECA                               |             |   |   |   |   |   |
| EXC1077     | - National Cadet Corps (NCC) - ECA                              |             |   |   |   |   |   |

| Course Code | Course Title                                          | Course Type | L | T | P | J | C |
|-------------|-------------------------------------------------------|-------------|---|---|---|---|---|
| EXC1078     | VIT Spartans - ECA                                    |             |   |   |   |   |   |
| EXC1078     | Learning with Spartans - ECA                          |             |   |   |   |   |   |
| EXC1079     | Anokha - ECA                                          |             |   |   |   |   |   |
| EXC1079     | Inception of Change - ECA                             |             |   |   |   |   |   |
| EXC1080     | American Society of Mechanical Engineers - ECA        |             |   |   |   |   |   |
| EXC1081     | Open Source Development for Google Applications - ECA |             |   |   |   |   |   |
| EXC1082     | Telugu Literary Association - ECA                     |             |   |   |   |   |   |
| EXC1083     | Mozilla Firefox - ECA                                 |             |   |   |   |   |   |
| EXC1083     | Open Source User Interface - ECA                      |             |   |   |   |   |   |
| EXC1084     | Apple Developers Group - ECA                          |             |   |   |   |   |   |
| EXC1084     | IOS Platform - ECA                                    |             |   |   |   |   |   |
| EXC1085     | Technology And Gaming Club (TAG) - ECA                |             |   |   |   |   |   |
| EXC1087     | Engineering in Medicine and Biology - ECA             |             |   |   |   |   |   |
| EXC1088     | Energy for Societal Development - ECA                 |             |   |   |   |   |   |
| EXC1090     | Economic Development and Commercial Sciences - ECA    |             |   |   |   |   |   |
| EXC1095     | Skills in Financial Investment - ECA                  |             |   |   |   |   |   |
| EXC1097     | Practical Fundamentals of Chemical Engineering - ECA  |             |   |   |   |   |   |
| EXC1100     | Experiential Learning of Energy Engineers - ECA       |             |   |   |   |   |   |
| EXC1101     | Mathsomania - ECA                                     |             |   |   |   |   |   |
| EXC1102     | Art of Research and Publication - ECA                 |             |   |   |   |   |   |
| EXC1107     | Skills on Chemical Engineering - ECA                  |             |   |   |   |   |   |
| EXC1110     | Engineering for Industrial Applications - ECA         |             |   |   |   |   |   |
| EXC1111     | TechEd - ECA                                          |             |   |   |   |   |   |
| EXC1114     | Communication in Technology and Networking - ECA      |             |   |   |   |   |   |
| EXC1120     | Creativity Club - ECA                                 |             |   |   |   |   |   |
| EXC1121     | Social Entrepreneurship - ECA                         |             |   |   |   |   |   |
| EXC1124     | Humanitarian Service - ECA                            |             |   |   |   |   |   |
| EXC1127     | Debating on Internal Issues - ECA                     |             |   |   |   |   |   |
| EXC1129     | Uddeshya - ECA                                        |             |   |   |   |   |   |
| EXC1129     | Peer Educator Training Programme - ECA                |             |   |   |   |   |   |
| EXC1132     | The way of Living - ECA                               |             |   |   |   |   |   |
| EXC1134     | Child Care and Education - ECA                        |             |   |   |   |   |   |
| EXC1135     | Kannada Arts and Literature - ECA                     |             |   |   |   |   |   |
| EXC1157     | Trekking Club - ECA                                   |             |   |   |   |   |   |
| EXC4097     | Co/Extra Curricular - ECA                             |             |   |   |   |   |   |
| FLC4097     | Foreign Language Course Basket                        | CDB         | 0 | 0 | 0 | 0 | 2 |
| ESP1001     | ESPAÑOL FUNDAMENTAL - TH                              |             |   |   |   |   |   |
| ESP2001     | ESPAÑOL INTERMEDIO - ETL                              |             |   |   |   |   |   |
| FRE1001     | Francais quotidien - TH                               |             |   |   |   |   |   |
| FRE2001     | Francais progressif - ETL                             |             |   |   |   |   |   |
| GER1001     | Grundstufe Deutsch - TH                               |             |   |   |   |   |   |
| GER2001     | Mittelstufe Deutsch - ETL                             |             |   |   |   |   |   |
| GRE1001     | Modern Greek - TH                                     |             |   |   |   |   |   |

| Course Code                                                             | Course Title                 | Course Type | L | T | P | J | C |
|-------------------------------------------------------------------------|------------------------------|-------------|---|---|---|---|---|
| JAP1001 - Japanese for Beginners - TH                                   |                              |             |   |   |   |   |   |
| RUS1001 - Russian for Beginners - TH                                    |                              |             |   |   |   |   |   |
| STS4097                                                                 | Soft Skills B.Tech. / B.Des. | CDB         | 0 | 0 | 0 | 0 | 6 |
| STS1001 - Introduction to Soft Skills - SS                              |                              |             |   |   |   |   |   |
| STS1002 - Introduction to Business Communication - SS                   |                              |             |   |   |   |   |   |
| STS1101 - Fundamentals of Aptitude - SS                                 |                              |             |   |   |   |   |   |
| STS1102 - Arithmetic Problem Solving - SS                               |                              |             |   |   |   |   |   |
| STS1201 - Introduction to Problem Solving - SS                          |                              |             |   |   |   |   |   |
| STS1202 - Introduction to Quantitative, Logical and Verbal Ability - SS |                              |             |   |   |   |   |   |
| STS2001 - Reasoning Skill Enhancement - SS                              |                              |             |   |   |   |   |   |
| STS2002 - Introduction to Etiquette - SS                                |                              |             |   |   |   |   |   |
| STS2101 - Getting Started to Skill Enhancement - SS                     |                              |             |   |   |   |   |   |
| STS2102 - Enhancing Problem Solving Skills - SS                         |                              |             |   |   |   |   |   |
| STS2201 - Numerical Ability and Cognitive Intelligence - SS             |                              |             |   |   |   |   |   |
| STS2202 - Advanced Aptitude and Reasoning Skills - SS                   |                              |             |   |   |   |   |   |
| STS3001 - Preparedness for External Opportunities - SS                  |                              |             |   |   |   |   |   |
| STS3004 - Data Structures and Algorithms - SS                           |                              |             |   |   |   |   |   |
| STS3005 - Code Mithra - SS                                              |                              |             |   |   |   |   |   |
| STS3006 - Preparedness for External Opportunities - SS                  |                              |             |   |   |   |   |   |
| STS3007 - Preparedness for Career Opportunities - SS                    |                              |             |   |   |   |   |   |
| STS3101 - Introduction to Programming Skills - SS                       |                              |             |   |   |   |   |   |
| STS3104 - Enhancing Programming Ability - SS                            |                              |             |   |   |   |   |   |
| STS3105 - Computational Thinking - SS                                   |                              |             |   |   |   |   |   |
| STS3201 - Programming Skills for Employment - SS                        |                              |             |   |   |   |   |   |
| STS3204 - JAVA Programming and Software Engineering Fundamentals - SS   |                              |             |   |   |   |   |   |
| STS3205 - Advanced JAVA Programming - SS                                |                              |             |   |   |   |   |   |
| STS3301 - JAVA for Beginners - SS                                       |                              |             |   |   |   |   |   |
| STS3401 - Foundation to Programming Skills - SS                         |                              |             |   |   |   |   |   |
| STS5002 - Preparing for Industry - SS                                   |                              |             |   |   |   |   |   |
| Course Code                                                             | Course Title                 | Course Type | L | T | P | J | C |
| <b>BRIDGE COURSE</b>                                                    |                              |             |   |   |   |   |   |
| ENG1002                                                                 | Effective English            | LO          | 0 | 0 | 4 | 0 | 2 |
| ENG1702                                                                 | Effective English            | LO          | 0 | 0 | 4 | 0 | 2 |
| Course Code                                                             | Course Title                 | Course Type | L | T | P | J | C |
| <b>NON CREDIT COURSE</b>                                                |                              |             |   |   |   |   |   |