| 2 year M. Tech. Course Curricula for Structural Engineering | | | | | | | |
|---|---|---|---|---|---|---|---|
| **M. Tech. I semester-(M1)** | | | | | | | |
| S.No. | Subject Code | Subject | Core/Elective | L | T | P | Credits |
| 1 | CE501 | Advanced Structural Analysis | Core | 3 | 0 | 0 | 3 |
| 2 | CE502 | Design of Reinforced Concrete Structures | Core | 3 | 0 | 0 | 3 |
| 3 | CEXXX | Elective I | Elective – I | 3 | 0 | 0 | 3 |
| 4 | CEXXX | Elective II | Elective – II | 3 | 0 | 0 | 3 |
| 5 | CEXXX | Elective III | Elective - III | 3 | 0 | 0 | 3 |
| 6 | HS520 | Research Methodology and IPR | Core | 2 | 0 | 0 | 2 |
| | | **Total** | | **15** | **0** | **4** | **17** |

| 2 year M.Tech. Course Curricula for Structural Engineering | | | | | | | |
|---|---|---|---|---|---|---|---|
| **M.Tech. II semester-(M2)** | | | | | | | |
| S.No. | Subject Code | Subject | Core/Elective | L | T | P | Credits |
| 1 | CE503 | Solid Mechanics in Structural Engineering | Core | 3 | 0 | 0 | 3 |
| 2 | CE504 | Design of Steel Structures | Core | 3 | 0 | 0 | 3 |
| 3 | CE7XX | Elective IV | Elective IV | 3 | 0 | 0 | 3 |
| 4 | CE7XX | Elective V | Elective V | 3 | 0 | 0 | 3 |
| | CE7XX | Elective VI | Elective VI | 3 | 0 | 0 | 3 |
| | CE601 | Concrete Structures Laboratory | Core Lab - I | 0 | 0 | 2 | 1 |
| | CE801 | CAD Laboratory | Elective Lab - I | 0 | 0 | 2 | 1 |
| 5 | CE602 | Minor Project (Based on Specialization) | Core | 0 | 0 | 6 | 3 |
| 6 | | Audit Course | Audit | 2 | 0 | 0 | Qualifying |
| | | **Total** | | **17** | **0** | **10** | **20** |
| | | | | | | | |

| 2 Year M.Tech. Course Curricula for Structural Engineering | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| **M.Tech. III semester-(M3)** | | | | | | | |
| S.No. | Subject Code | Subject | Core/Elective | L | T | P | Credits |
| 1 | | Open Elective | Elective | 3 | 0 | 0 | 3 |
| 2 | CE7XX | Elective VII | Elective VII | 3 | 0 | 0 | 3 |
| 3 | CE603 | Seminar and Term Paper | Core | 0 | 0 | 4 | 2 |
| 4 | CEXXX | Project-Based Learning | Core | 0 | 0 | 8 | 4 |
| 5 | CE604 | Dissertation Part-I | Core | 3 | 0 | 8 | 4 |
| 6 | | Audit Course | Audit | 2 | 0 | 0 | Qualifying |
| | | **Total** | | **11** | **0** | **20** | **16** |

| 2 year M. Tech. Course Curricula for Structural Engineering | | | | | | | |
|---|---|---|---|---|---|---|---|
| **M. Tech. IV semester-(M4)** | | | | | | | |
| S.No. | Subject Code | Subject | Core/Elective | L | T | P | Credits |
| 4 | CE606 | Dissertation Part-II | Core | - | - | 30 | 15 |
| | | **Total** | | | | | **15** |

| List of Electives-I | | |
|---|---|---|
| | 14M14MA213 | Advanced Numerical Techniques |
| | CE701 | Stability of Structures |
| 1 | CE702 | Plastic Analysis of Structures |
| 2 | CE703 | Hydraulic Structures |
| 3 | CE704 | Geo-Environmental Engineering |
| 4 | CE705 | Structural Dynamics |
| 5 | CE706 | Finite Element Methods |
| 6 | CE707 | Earthquake Resistant Design of Structures |
| 7 | CE708 | Design of Bridge Sub-structure |
| 8 | CE709 | Soil Structure Interaction |
| 9 | CE710 | Design of Industrial Structures |
| 10 | CE711 | Recent Advances In Construction Materials |
| 11 | CE712 | Pre-Stressed Concrete Design |
| 12 | CE713 | Composite Materials and Structures |
| 13 | CE714 | Analysis and Design of Tall Buildings |
| 14 | CE715 | Structural Health Monitoring |
| 15 | CE716 | Repair And Retrofitting of Structures |
| 16 | CE717 | Construction Methods And Equipment |
| 17 | CE718 | Structural Vibration Control |
| 18 | CE719 | Formwork for Concrete Structures |
| 19 | CE720 | Advanced Steel Design |
| 20 | CE721 | Wind Engineering |
| 21 | CE722 | Blast Resistant Design of Structures |
| 22 | CE723 | Computer Application in Structural Analysis & Design |
| 23 | CE724 | Masonry Structures |
| 24 | CE725 | Design of Substructures |
| 25 | CE726 | Bridge Engineering |
| 26 | CE727 | Theory of Plates and Shells |
| 27 | CE728 | Design of Fiber Reinforced Composite Structures |
| 28 | | |