**PG Program [M. Tech.Civil Structural Engineering] Curriculum Structure**

**W.e.f AY 2019-20 and Applicable for batches admitted from AY 2019-20 to 2022-23**

**List of Abbreviations**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Abbreviation | Title | No of courses | Credits | % of Credits |
| PSMC | Program Specific Mathematics Course | 1 | 4 | 5.9% |
| PSBC | Program Specific Bridge Course | 1 | 3 | 4.4% |
| DEC | Department Elective Course | 3 | 9 | 13.2% |
| MLC | Mandatory Learning Course | 2 | 0 | 0% |
| PCC | Program Core Course | 6 | 22 | 32.4% |
| LC | Laboratory Course | 2 | 2 | 2.9% |
| IOC | Interdisciplinary Open Course | 1 | 3 | 4.4% |
| LLC | Liberal Learning Course | 1 | 1 | 1.5% |
| SLC | Self Learning Course | 2 | 6 | 8.8% |
| SBC | Skill Based Course | 2 | 18 | 26.5% |

**M. Tech.Civil Structural Engineering**

**Semester I**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sr.****No.** | **Course****Type** | **Course Code** | **Course Name** | **Teaching Scheme** | **Credits** |
| L | T | P |
| 1. | PSMC | CSE-19001 | Numerical Methods in Structural Engineering | 3 | 1 | -- | 4 |
| 2. | PSBC | CSE-19002 | Advanced Analysis of Structures | 3 | 0 | -- | 3 |
| 3. | DEC | CSE(DE)-19001CSE(DE)-19002 | Advanced Design of RC Structures / Advanced Design of Steel Structures | 3 | -- | -- | 3 |
| 4. | PCC | CSE-19003 | Structural Dynamics | 3 | 1 | -- | 4 |
| 5 | PCC | CSE-19004 | Solid Mechanics | 3 | 1 | -- | 4 |
| 6 | LC | CSE-19005 | Lab -I: NDT and Structural Dynamics | -- | -- | 3 | 2 |
| 7 | LC | CSE-19006 | Lab-II: Computer Aided Design | -- | -- | 3 | 2 |
| **Total Credits** | **22** |

**Semester II**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sr.****No.** | **Course****Type** | Course Code | **Course Name** | **Teaching Scheme** | **Credits** |
| L | T | P |
| 1. | IOC |  |  \*Interdisciplinary Open Course  | 3 | -- | -- | 3 |
| 2. | DEC | CSE(DE)-19003CSE(DE)-19004 | High Rise StructuresBridge Engineering | 3 | -- | -- | 3 |
| 3. | DEC | CSE(DE)-19005CSE(DE)-19006 | Advanced Structural Dynamics Nonlinear Structural Analysis | 3 | -- | -- | 3 |
| 4. | MLC | ML-19011 | Research Methodology and Intellectual Property Rights  | 2 | -- | -- | -- |
| 5 | MLC | ML-19012 | Effective Technical Communication | 1 | -- | -- | -- |
| 6 | LLC | LL-19001 | Liberal Learning Course | -- | -- | -- | 1 |
| 7 | PCC | CSE-19007 | Finite Element Method | 3 | 1 | -- | 4 |
| 8 | PCC | CSE-19008 | Theory of Thin Plates and Shells | 3 | 1 | -- | 4 |
| 9 | LC | CSE-19009 | Mini Project |  |  | 3 | 2 |
| 10 | LC | CSE-19010 |  Lab Practice III Experimental Concrete Technology |  |  | 3 | 2 |
| **Total Credits** |  **22** |

Dept offers **“**MATLAB for Engineers” as IOC for students of other departments.

**Semester-III**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr.****No.** | **Course****Code** | **Course Name** | **Teaching Scheme** | **Credits** |
| L | T | P |
| 1. | SBC (CSE-19011) | Dissertation Phase – I | -- | -- | 18 | 9 |
| 2.  | SLC (CSE-19012) | Massive Open Online Course –I:  | 3 | -- | -- | 3 |
| **Total Credits** |  **12** |

**Semester-IV**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr.****No.** | **Course****Code** | **Course Name** | **Teaching Scheme** | **Credits** |
| L | T | P |
| 1. | SBC (CSE-19013) | Dissertation Phase – II | -- | -- | 18 | 9 |
| 2. | SLC (CSE-19014) | Massive Open Online Course –II:  | 3 | -- | -- | 3 |
| **Total Credits** |  **12** |