**PROGRAMME STRUCTURE**

**M.TECH BIOINFORMATICS**

| **Sem-I** | | | | |
|---|---|---|---|---|
| **Course Name** | **L** | **T** | **P** | **C** |
| Algorithmic Application in Bioinformatics | 3 | 0 | 1 | 4 |
| Computational Structural Biology | 3 | 0 | 1 | 4 |
| Statistical Programming using R | 3 | 0 | 1 | 4 |
| Protein Engineering and Design | 3 | 0 | 0 | 3 |
| Multi-omics Technology | 3 | 0 | 0 | 3 |
| **Elective-1**<br>Machine Learning for Bioinformatics Clinical Pharmacogenomics<br>Computational Immunoinformatics | 3 | 0 | 0 | 3 |
| **Total Credit** | | | | **21** |
| **Sem-II** | | | | |
| Systems & Network Biology | 3 | 0 | 0 | 3 |
| Advancements in Next Generation Sequencing | 3 | 0 | 1 | 4 |
| Computer-Aided Drug Discovery | 3 | 0 | 1 | 4 |
| Statistical Programming using Python | 3 | 0 | 1 | 4 |
| Bio-Inspired Computational Intelligence | 3 | 0 | 0 | 3 |
| **Elective-2**<br>Medical Image Processing<br>Deep Learning<br>GenAI for Biology | 3 | 0 | 0 | 3 |
| Regulatory Affairs and Bioethics | 2 | 0 | 0 | 2 |
| **Total Credit** | | | | **23** |
| **Sem-III** | | | | |
| MOOCs-1 (Domain-specific online course) | 2 | 0 | 0 | 2 |
| Research Project-I | 0 | 0 | 12 | 12 |
| **Total Credit** | | | | **14** |
| **Sem-IV** | | | | |
| Research Project II | 0 | 0 | 14 | 14 |
| **Total Credit** | | | | **14** |

**Total credits = 72**