

Sardar Vallabhbhai National Institute of Technology (SVNIT) Surat

Department of Mathematics

Bachelor of Technology in Mathematics and Computing (MaC)

| Sr. No. | Subject | Code | Scheme L-T-P | Credits (Min.) | Notional hours of Learning (Approx.) |
|---|---|------------------|----------------|----------------|--------------------------------------|
| Fifth Semester (3rd year of B.Tech. MaC) | | | | | |
| 1 | Ordinary Differential Equations and computations | MA305 | 3-0-2 | 4 | 85 |
| 2 | Foundation of Data Science | MA307 | 3-1-0 | 4 | 70 |
| 3 | Machine Learning | MA/CS/AI3XX | 3-0-2 | 4 | 85 |
| 4 | Elective-III** | MA3AA | 3-1-0 3-0-2 | 4 | 70/85 |
| 5 | Elective-IV (Specialization#1) | MA/CS/AI3BB | 3-X-X | 4 | 70/85 |
| | | | Total | 20 | 380-410 |
| Sixth Semester (3rd year of B.Tech. MaC) | | | | | |
| 1 | Optimization Techniques and Computing | MA306 | 3-0-2 | 4 | 85 |
| 2 | Partial Differential Equation and Computing | MA308 | 3-0-2 | 4 | 85 |
| 3 | Fundamentals Artificial Intelligence | MA/CS/AI3XX | 3-1-0 | 4 | 70 |
| 4 | Elective-V** | MA/CS/AI3CC | 3-1-0 3-2-0 | 4 | 70/85 |
| 5 | Elective-VI (Specialization#2) | MA/CS/AIXDD | 3-X-X | 4 | 70/85 |
| | | | Total | 20 | 380-410 |
| 6 | Mini Project-II/ Vocational Training / Professional Experience (Optional) (mandatory for exit) | MAV06 / MAP06 | 0-0-10 | 5 | 200 (20 x 10) |

Subject Code:##nXX; ##: Department Identity, n: Year, XX: Subject Sequence number XX: last digit 0 (subject offered in both ODD and EVEN semesters, XX: 01 to 30 – last digit ODD and EVEN for ODD and EVEN semesters (Mandatory Core), XX: 31 to 50 (Optional Core), XX: 51 to 99 (Elective), Subjects list for Minor and Honor (M/H#1-4), Subjects list for Specialization track (#1-4)EG: Engineering Subject, SC: Science Subject (offered combinedly by departments) (SVNIT Surat)