

MCA

(Master of Computer Application)

Syllabus

2026-2028



SCHOOL OF
ENGINEERING & TECHNOLOGY
SUSHANT UNIVERSITY

Department of Computer Applications

School of Engineering & Technology, Sushant University

Gurugram Sector 55, 122003

www.sushantuniversity.edu.in

MCA

Syllabus (1st Year_1st & 2nd Semester)

| Semester-I | | | | | |
|--------------|--|---|---|---|-----------|
| Course Code | Title | L | T | P | Credits |
| SE551 | Research Methodology | 3 | 0 | 0 | 3 |
| CA511 | Advance Data Structures | 3 | 0 | 2 | 4 |
| CA501 | Mathematical Foundation of Computer Scie | 3 | 0 | 0 | 3 |
| | Department Elective-1 | 2 | 0 | 2 | 3 |
| CA503 | Internet and Web Designing-I | 2 | 0 | 2 | 3 |
| Total | | | | | 16 |

| Semester-II | | | | | |
|--------------|--|---|---|---|-----------|
| Course Code | Title | L | T | P | Credits |
| CA505 | Analysis of Design and Algorithms | 3 | 0 | 2 | 4 |
| CA504 | Digital Design and Computer Architecture | 4 | 0 | 0 | 4 |
| CA506 | Advanced Java | 3 | 0 | 2 | 4 |
| | Department Elective-2 | 2 | 0 | 2 | 3 |
| CA508 | Internet and Web Designing-II | 3 | 0 | 2 | 4 |
| Total | | | | | 19 |

MCA

Syllabus (2nd Year_3rd & 4th Semester)

| Semester-III | | | | | |
|--------------|---------------------------------------|---|---|---|-----------|
| Course Code | Title | L | T | P | Credits |
| CA603 | Department Elective-3 | 2 | 0 | 2 | 3 |
| CA605 | Department Elective-4 | 2 | 0 | 2 | 3 |
| CA601 | Advanced Database Management Systems | 3 | 0 | 2 | 4 |
| CA681 | Seminar on Summer Training/Internship | 0 | 2 | 0 | 2 |
| CA691 | Minor Project | 0 | 0 | 8 | 4 |
| CA607 | Department Elective-5 | 2 | 0 | 2 | 3 |
| Total | | | | | 19 |

| Semester-IV | | | | | |
|--------------|-----------------------|---|---|----|-----------|
| Course Code | Title | L | T | P | Credits |
| | Department Elective-6 | 2 | 0 | 2 | 3 |
| | Department Elective-7 | 2 | 0 | 2 | 3 |
| CA682 | Study Seminar | 0 | 3 | 0 | 3 |
| CA692 | Major Project | | | 14 | 7 |
| | Department Elective-8 | 2 | 0 | 2 | 3 |
| Total | | | | | 19 |

Total no. of credit – 73

L = Lecture

T = Tutorial

P = Practical

H = Hours

C = Credits

MCA

Electives List

| Course | Course Title | L | T | P | Hours | Credits |
|-----------------------|--|---|---|---|-------|---------|
| Department Elective-1 | Cloud Computing | 2 | 0 | 2 | 4 | 3 |
| Department Elective-2 | Joy of Computing With Python | 2 | 0 | 2 | 4 | 3 |
| | Social Media Security | 3 | 0 | 0 | 3 | 3 |
| Department Elective-3 | Cloud Security | 2 | 0 | 2 | 4 | 3 |
| Department Elective-4 | Firewall Managemet | 2 | 0 | 2 | 4 | 3 |
| Department Elective-5 | Artificial Intelligence and Machine Learning | 2 | 0 | 2 | 4 | 3 |
| Department Elective-6 | Embedded System with IoT | 2 | 0 | 2 | 4 | 3 |
| | IoT Threats and Safe Guards | 3 | 0 | 0 | 3 | 3 |
| Department Elective-7 | Application Layer Security | 3 | 0 | 0 | 4 | 3 |
| | Cryptography and Cyber Threat Mitigation | 2 | 0 | 2 | 4 | 3 |
| Department Elective-8 | Deep Learning | 2 | 0 | 2 | 4 | 3 |
| | Machine learning and Pattern Recognition | 2 | 0 | 2 | 4 | 3 |

SET, SUSHANT