



SINHGAD TECHNICAL EDUCATION SOCIETY'S
**SINHGAD INSTITUTE OF BUSINESS
ADMINISTRATION & RESEARCH**



(Approved by AICTE, Recognized by Government of Maharashtra, Affiliated to Savitribai Phule Pune University)

MCA Programme Structure



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VISION

To develop responsible citizens with values and futuristic global perspective emphasising digitalisation, applied research, innovation and sustainable development.

MISSION

To create a center of excellence by imparting quality education through experiential learning, collaborations, incubating inherent talent, encouraging research, entrepreneurial spirit and adoption of technology to excel in the global environment.

SHORT TERM GOALS

- **Digitalisation** - Transforming processes by introducing modern digital infrastructure.
- **Research** - To inculcate research culture among the stakeholders.
- **Industry Academia Collaboration** - To keep pace with the industry expectations and bridge the skill gap.

LONG TERM GOALS

- **Innovation and Incubation** - To nurture ideas and encourage entrepreneurship.
- **Reskilling and Up Skilling** - To enhance knowledge based competencies through extensive development programs.
- **Sustainable Development** - To protect, restore and promote an evolving learning ecosystem.



Savitribai Phule Pune University, Pune
Faculty of Commerce and Management

Master of Computer Application (MCA)

Programme Structure

MCA programme is Two-Year Full-Time Programme affiliated to Savitribai Phule Pune University.

The revised MCA Curriculum 2020 builds on the implementation of the Choice Based Credit System (CBCS) and Grading System initiated in the AY 2015. The curriculum takes the MCA programme to the next level in terms of implementing Outcome Based Education along with the Choice Based Credit System (CBCS) and Grading System.

The MCA programme is a combination of:

- a. Three-Credit Courses (75 Marks each): 3 Credits each
- b. Two-Credit Courses (50 Marks each): 2 Credits each
- c. One-Credit Courses (25 Marks each) : 1 Credits each

The session details per credit for each of Lecture-Practical/Project-Tutorial (L-P-T) model are as follows:

1. Every ONE-hour session per week of L amounts to 1 credit per semester
2. Minimum of TWO hours per week of P amounts to 1 credit per semester
3. Minimum of ONE hours per week of T amounts to 1 credit per semester

Open Courses:

Institute has to offer two open courses of 1 credit each per semester to the students from Semester I to Semester III. The motive behind keeping an open course is to make students aware of current/upcoming trends in Information Technology and other domains. Full autonomy is given to the Institute to plan and execute the open courses. Each semester total 2 credits are reserved for open courses.

Evaluation and Assessment:

In total 112 credits represent the workload of a year for MCA program. The final total assessment of the candidate is made in terms of an internal (concurrent) evaluation and an external (university) examination for each course. In total the internal (concurrent) to external (university) marks ratio is maintained 50:50.

For each course, 25 marks will be based on internal evaluation and 50 marks for semester end examination conducted by University.

| Semester - I | | | | | |
|--------------|--------------------------------------|-------------|-----------|------------|------------|
| Sr. No. | Course Title | Course Code | CP | EXT | INT |
| 1 | Java Programming | IT11 | 3 | 50 | 25 |
| 2 | Data Structure and Algorithms | IT12 | 3 | 50 | 25 |
| 3 | Object Oriented Software Engineering | IT13 | 3 | 50 | 25 |
| 4 | Operating System Concepts | IT14 | 3 | 50 | 25 |
| 5 | Network Technologies | IT15 | 3 | 50 | 25 |
| 6 | Open Course 1 | OC11 | 1 | | 25 |
| 7 | Open Course 2 | OC12 | 1 | | 25 |
| | * Practicals | | | | |
| 8 | Practical | IT11L | 5 | 50 | 75 |
| 9 | Mini Project | ITC11 | 5 | 50 | 75 |
| | Soft Skills | | | | |
| 10 | Soft Skills - I | SS11 | 1 | | 25 |
| | | | 28 | 350 | 350 |

| Semester - II | | | | | |
|---------------|--------------------------------|-------------|-----------|------------|------------|
| Sr. No. | Course Title | Course Code | CP | EXT | INT |
| 1 | Python Programming | IT21 | 3 | 50 | 25 |
| 2 | Software Project Management | IT22 | 3 | 50 | 25 |
| 3 | Optimization Techniques | MT21 | 3 | 50 | 25 |
| 4 | Advanced Internet Technologies | IT23 | 3 | 50 | 25 |
| 5 | Advanced DBMS | IT24 | 3 | 50 | 25 |
| 6 | Open Course 3 | OC21 | 1 | | 25 |
| 7 | Open Course 4 | OC22 | 1 | | 25 |
| | * Practicals | | | | |
| 8 | Practical | IT21L | 5 | 50 | 75 |
| 9 | Mini Project | ITC21 | 5 | 50 | 75 |
| | Soft Skills | | | | |
| 10 | Soft Skills - II | SS21 | 1 | | 25 |
| | | | 28 | 350 | 350 |

| Semester - III | | | | | |
|---------------------|---|-------------|----|-----|-----|
| Sr. No. | Course Title | Course Code | CP | EXT | INT |
| 1 | Mobile Application Development | IT31 | 3 | 50 | 25 |
| 2 | Data Warehousing and Data Mining | IT32 | 3 | 50 | 25 |
| 3 | Software Testing and Quality Assurance | IT33 | 3 | 50 | 25 |
| 4 | Knowledge Representation & Artificial Intelligence - ML, DL | IT34 | 3 | 50 | 25 |
| 5 | Cloud Computing | IT35 | 3 | 50 | 25 |
| 6 | Open Course 5 | OC31 | 1 | | 25 |
| 7 | Open Course 6 | OC32 | 1 | | 25 |
| * Practicals | | | | | |
| 8 | Practical | IT31L | 5 | 50 | 75 |
| 9 | Mini Project | ITC31 | 5 | 50 | 75 |
| Soft Skills | | | | | |
| 10 | Soft Skills - III | SS31 | 1 | | 25 |

| Semester - IV | | | | | |
|---------------|--------------|-------------|-----------|------------|------------|
| Sr. No. | Course Title | Course Code | CP | EXT | INT |
| 1 | DevOps | IT41 | 3 | 50 | 25 |
| 2 | PPM and OB | BM41 | 3 | 50 | 25 |
| 3 | Project | ITC41 | 22 | 250 | 300 |
| | | | 28 | 350 | 350 |

| Total Marks | | | | |
|-------------|--------------|------------|-------------|-------------|
| Sr. No. | Semester | Credit | IE | UE |
| 1 | Semester-I | 28 | 350 | 350 |
| 2 | Semester-II | 28 | 350 | 350 |
| 3 | Semester-III | 28 | 350 | 350 |
| 4 | Semester-IV | 28 | 350 | 350 |
| | Total | 112 | 1400 | 1400 |
| | | | | 2800 |



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OUR PATRONS



Prof. M. N. Navale
President
Sinhgad Institutes



Dr. (Mrs.) Sunanda M. Navale
Secretary
Sinhgad Institutes



Ms. Rachana Navale-Ashtekar
Vice President (Admin)
Sinhgad Institutes



Dr. Rohit Navale
Vice President (HR)
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