



Bharatiya Vidya Bhavan's

Sardar Patel Institute of Technology

(Empowered Autonomous Institute Affiliated to University of Mumbai)

[Knowledge is Nectar]

[Department of Computer Science and Engineering (Master of Computer Applications)]

Bharatiya Vidya Bhavan's
Sardar Patel Institute of Technology
(Autonomous Institute Affiliated to University of Mumbai)

Master Of Computer Applications

Effective from Academic Year 2026-2027

Batch 2026 - 2028

Board of Studies Approval : 07/07/2026

Academic Council Approval :

Sd/-

Dr. Dhananjay Kalbande
HOD, CSE-MCA

Sd/-

Dr. Reena Sonkusare
Dean Academics

Sd/-

Dr. B.N. Chaudhari
Principal



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MCA PROGRAM AT SPIT: 2026 ITERATION

Salient Features

- 80 Credits Education Model for Computer/IT Graduates and Non-Computer/IT Graduates.
- A strong program core of 6 courses, 3 baskets of Thread Electives, 8 Program Electives, 9 skilled-based courses to ensure breadth and depth in a chosen domain of studies.
- Credit-based 6-Month Industry Internship.
- One year Major Project.
- Summer Term for Interview Preparation.
- Aggressive model of “Learning by Doing”.
- Open courses like Finance, Law, Psychology, and Economics are offered to have a multidisciplinary approach in learning.
- Provision to earn credits against Open Electives through MOOC Courses.
- Provision to earn credits through bridge courses for Non-Computer / IT Graduates.

This curriculum aims at the development of an all-rounded personality. It follows a holistic approach of education, ensures mathematics foundation and program core, develops expertise in domain verticals through sequel of electives and HSSE courses.



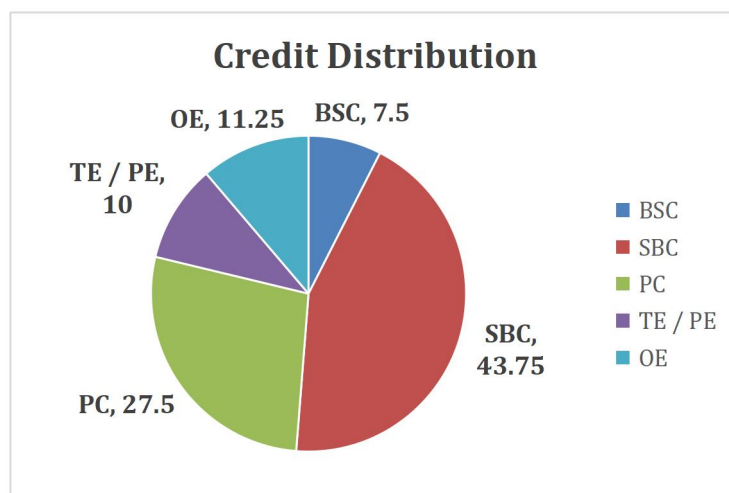
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Nomenclature of the Courses		
Groups	Abbreviation	Course Category
Basic Science Courses	BSC	Basic Science Course
Skill based Courses	SBC	Skilled Based Course
Program Related Courses (PRC)	PC	Program Core
	TE	Thread Elective
	PE	Program Elective
Humanities, Social Science and Management Courses	MLC	Mandatory Learning Course
	OE	Open Elective

Abbreviations			
L	Lecture Hour	SE	Self Engagement in Hours
T	Tutorial Hour	TE	Total Engagement in Hours
P	Laboratory Hour	C	Credit Assigned

S.P.I.T. Credit Structure						
Course Category	Sem I	Sem II	Sem III	Sem IV	Total	%
BSC	3	3	-	-	6	7.5
SBC	5	8	6	16	35	43.75
PC	12	6	4	-	22	27.5
TE / PE	-	4	4	-	8	10
OE	-	-	6	3	9	11.25
Total	20	21	20	19	80	100





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Sem I (For Computer/IT Graduates)									
No	Type	Code	Course	L	T	P	SE	TE	C
1	BSC	MA501	Linear Algebra	2	1	0	5	8	3
2	PC	MC501	Data Structures	3	0	2	4	9	4
3	PC	MC502	Database Management System	3	0	2	5	10	4
4	PC	MC503	Software Engineering	3	0	2	5	10	4
5	SBC	MC504	Web Technology Lab	0	1	4	4	9	3
6	SBC	AS501	Writing Skills	1	0	2	2	5	2
			TOTAL	12	2	12	25	51	20

Sem I (For Non-Computer/IT Graduates)									
No	Type	Code	Course	L	T	P	SE	TE	C
1	BSC	MA502	Linear Algebra & Discrete Mathematics	4	0	0	5	9	4
2	PC	MC501	Data Structures	3	0	2	4	9	4
3	PC	MC502	Database Management System	3	0	2	5	10	4
4	PC	MC503	Software Engineering	3	0	2	5	10	4
5	SBC	MC504	Web Technology Lab	0	1	4	4	9	3
6	PC*	MC505	Problem Solving using OOPs Lab	0	0	2	2	4	1
7	SBC	AS501	Writing Skills	1	0	2	2	5	2
			TOTAL	14	1	14	27	56	22



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Sem II (For Computer/IT Graduates)									
No	Type	Code	Course	L	T	P	SE	TE	C
1	BSC	MA503	Probability and Statistics	3	0	0	4	7	3
2	PC	MC507	Design and Analysis of Algorithms	3	0	2	3	8	4
3	PE	MC5XX-I	Thread Elective-I /Program Elective-I	3	0	2	4	9	4
4	SBC	MC509	Mobile Programming Lab	0	0	4	4	8	2
5	PC	MC506	Advanced Java Programming Lab	0	0	4	3	7	2
6	SBC	MC508	Process Automation Lab	0	1	2	4	7	2
7	SBC	AS502	Communication & Presentation Skills	1	0	2	2	5	2
8	SBC	MC601	Major Project Stage I	0	0	4	0	4	2
			TOTAL	10	1	20	24	55	21

Sem II (For Non Computer/IT Graduates)									
No	Type	Code	Course	L	T	P	SE	TE	C
1	BSC	MA503	Probability and Statistics	3	0	0	4	7	3
2	PC*	MC510	Operating System	2	0	0	4	6	2
3	PC	MC507	Design and Analysis of Algorithms	3	0	2	3	8	4
4	PE	MC5XX-I	Thread Elective-I /Program Elective-I	3	0	2	4	9	4
5	SBC	MC509	Mobile Programming Lab	0	0	4	4	8	2
6	PC	MC506	Advanced Java Programming Lab	0	0	4	3	7	2
7	SBC	MC508	Process Automation Lab	0	1	2	4	7	2
8	SBC	AS502	Communication & Presentation Skills	1	0	2	2	5	2
9	SBC	MC601	Major Project Stage I	0	0	4	0	4	2
			TOTAL	12	1	20	28	61	23



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SUMMER TERM					
No	Type	Code	Course	TE	C
1	MLC	AS601	Constitution of India	5	NC
2	MLC	AS602	Interview Preparation Skills	30	NC
			TOTAL	35	-

Sem III (For Computer/IT Graduates)									
No	Type	Code	Course	L	T	P	SE	TE	C
1	OE*	OEXXX	Open Elective-I	3	0	0	5	8	3
2	OE*	OEXXX	Open Elective-II	3	0	0	5	8	3
3	PE	MC5XX-II	Thread Elective-II /Program Elective-II	3	0	2	4	9	4
4	PC	MC511	User Interaction Design	3	0	2	4	9	4
5	SBC	MC602	Major Project Stage II	0	1	8	8	17	5
6	SBC	AS603	Selling and Negotiation Skills	1	0	0	3	4	1
			TOTAL	13	1	12	29	55	20

Sem III (For Non-Computer/IT Graduates)									
No	Type	Code	Course	L	T	P	SE	TE	C
1	PC*	MC527	Computer Networks	2	0	2	3	7	3
2	OE*	OEXXX	Open Elective-I	3	0	0	5	8	3
3	PE	MC5XX-II	Thread Elective-II /Program Elective-II	3	0	2	4	9	4
4	PC	MC511	User Interaction Design	3	0	2	4	9	4
5	SBC	MC602	Major Project Stage II	0	1	8	8	17	5
6	SBC	AS603	Selling and Negotiation Skills	1	0	0	3	4	1
			TOTAL	12	1	14	27	56	20



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Sem IV (For Computer/IT Graduates)									
No	Type	Code	Course	L	T	P	SE	TE	C
1	OE*	OEXXX	Open Elective-III	3	0	0	5	8	3
2	SBC	MC610	6-Month Industry Internship/Research internship at SPIT or Other Institute / Internship with Startup at TBI	0	0	0	0	45	16
TOTAL				3	0	0	5	53	19

Sem IV (For Non-Computer/IT Graduates)									
No	Type	Code	Course	L	T	P	SE	TE	C
1	OE*	OEXXX	Open Elective-II	3	0	0	5	8	3
2	SBC	MC610	6-Month Industry Internship/Research internship at SPIT or Other Institute / Internship with Startup at TBI	0	0	0	0	45	12
TOTAL				3	0	0	5	53	15

* indicates MOOC Courses

THREAD ELECTIVES

Sr. No.	Thread	Thread Elective I	Thread Elective II
1	Data Science	Machine Learning (MC512)	Deep Learning (MC513)
2	Design	Design Thinking(MC514)	Total Experience Design (MC515)
3	Security	Network and Information Security(MC516)	Cyber Security and Forensics (MC517)
Any new thread approved by BoS			



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PROGRAM ELECTIVES / MOOC	
MC518	DevOps
MC519	Explainable Artificial Intelligence
MC520	Cloud Computing
MC521	Soft Computing
MC522	Block Chain Technology
MC523	Data Warehousing and Mining
MC524	Ethical Hacking
MC525	Software Testing and Quality Assurance
	Any other Course approved by the Dean Academics and Principal

OPEN ELECTIVES / MOOC	
OEHXX	Management Principles
OEHXX	IPR and Patents
OEHXX	Law for Engineers
OEHXX	Economics
OEHXX	Foreign Language
OEHXX	Psychology
OEHXX	Organizational Behavior
OEHXX	Leadership, Innovation and Entrepreneurship
OEHXX	Project Management
OEHXX	Finance for Engineers
OEHXX	Research Methodology
OEHXX	Any course approved by Dean Academics and Principal

Semester	Computer-IT Graduates	Non Computer-IT Graduates
I	20	22
II	21	23
III	20	20
IV	19	15
Total Credits	80	80