

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

PROGRAMME CODE: PS6A

PROGRAMME TITLE: MASTER OF COMPUTER APPLICATION (M.C.A.) (6Years)

OBJECTIVES:

The broad objectives of the M.C.A. programme are as follows:

The MCA (6 years) is the only Program of its kind in India. The students undergo rigorous training, which moulds them into highly competent and focused professionals. In a period of five and a half years a student studies a total of 57 subjects. The course structure is designed keeping in mind the overall development of the students. The students have to maintain a high standard of academic performance throughout the course. The classroom learning is complemented by practical experiences in the industry. The course includes compulsory project development at graduation and post graduation level.

ELIGIBILITY:

A candidate should have passed 10+2 with physics and mathematics with minimum 50% marks from any recognized state /central education board of equivalent.

AGE LIMIT: As per the directives of Government of Madhya Pradesh, there is no upper age limit for admission to various programmes.

ADMISSION PROCEDURE:

The admissions will be done as per merit in the entrance test conducted by the university.

SEATS: 90 (reservation as per state Govt. rules).

DURATION: Twelve Semesters (Six Years).

FEE STRUCTURE (2020-26):

Semester	Academic Fee	Development & Maintenance Fee	Students' Services Fee		Examination Fee	Total (Rs.)	
			Boys	Girls		Boys	Girls
First	21000	19500	3300	3111	2500	46300	46111
Second	21000	19500	2911	2722	2500	45911	45722
Third	21000	19500	3300	3111	2500	46300	46111
Fourth	21000	19500	2911	2722	2500	45911	45722

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Fifth	21000	19500	3300	3111	2500	46300	46111
Sixth	21000	19500	2911	2722	2500	45911	45722
Seventh	21000	19500	3300	3111	2500	46300	46111
Eighth	21000	19500	2911	2722	2500	45911	45722
Ninth	21000	19500	3300	3111	2500	46300	46111
Tenth	21000	19500	2911	2722	2500	45911	45722

- Caution money (Refundable) of Rs. 4000/- will be charged additionally in the first semester.
- Alumni Fee of Rs. 500/- will be charged extra in the first semester.
- If a student repeats a paper(s) in a semester, an additional fee of Rs.500/- per paper shall be payable.
- For NRI/ FN/ PIO Candidates, a fee of US\$ 3500 Per Annum shall be payable on yearly basis. They will have to pay a refundable deposit of US\$ 500 once at the time of admission.
- Hostel Fee and Central Library Fee will be extra.

PROGRAMME STRUCTURE (2020-26):

First Semester:

Code	Title	Credits (L T P)
CORE COURSES		
PS6A -101	Mathematics – I	4 (3-1-0)
PS6A -103	Physics – I	4 (3-1-0)
PS6A -105	Fundamentals of programming using C	4 (3-1-0)
PS6A -107	English & Communication Skills	4 (3-1-0)
PS6A -109	Computer Fundamentals	4 (3-1-0)
PS6A -111	C Programming Lab	2 (0-0-4)
PS6A -113	Computer Fundamental Lab	2 (0-0-4)
PS6A -151	Comprehensive Viva	4

Second Semester:

Code	Title	Credits (L T P)
CORE COURSES		
PS6A -102	Mathematics – II	4 (3-1-0)
PS6A -104	Chemistry & Environmental Science	4 (3-1-0)
PS6A -106	Basic Electronics	4 (3-1-0)
PS6A -108	Object Oriented Programming Using C++	4 (3-1-0)
PS6A -110	French	4 (3-1-0)
PS6A -112	Basic Electronics Lab	2 (0-0-4)
PS6A -114	Object Oriented Programming Lab	2 (0-0-4)
PS6A -152	Comprehensive Viva	4

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Third Semester:

Code	Title	Credits (L T P)
CORE COURSES		
PS6A -201	Probability and Statistics	4 (3-1-0)
PS6A -203	Financial Accounting	4 (3-1-0)
PS6A -205	Digital Electronics	4 (3-1-0)
PS6A -207	Data Structure and Algorithms	4 (3-1-0)
PS6A -209	Digital Computer Organization	4 (3-1-0)
PS6A -211	Digital Electronics Lab	2 (0-0-4)
PS6A -213	Data Structure and Algorithms Lab using C++	2 (0-0-4)
PS6A -251	Comprehensive Viva	4

Fourth Semester:

Code	Title	Credits (L T P)
CORE COURSES		
PS6A -202	Data & Computer Communication	4 (3-1-0)
PS6A -204	Discrete Mathematics	4 (3-1-0)
PS6A -206	Microprocessor and Assembly Language Programming	4 (3-1-0)
PS6A -208	Data Base Management Systems	4 (3-1-0)
PS6A -210	Mini Project	4
PS6A -212	Data Base Management System Lab	2 (0-0-4)
PS6A -214	Microprocessor Assembly Language Programming Lab	2 (0-0-4)
PS6A -252	Comprehensive Viva	4

Fifth Semester:

Code	Title	Credits (L T P)
CORE COURSES		
PS6A -301	Internet and Web Programming	4 (3-1-0)
PS6A -303	System Programming	4 (3-1-0)
PS6A -305	JAVA Programming	4 (3-1-0)
PS6A -307	Computer oriented Numerical Methods	4 (3-1-0)
PS6A -309	Organization Behavior	4 (3-1-0)
PS6A -311	Internet and Web Programming Lab	2 (0-0-4)
PS6A -313	JAVA Programming Lab	2 (0-0-4)
PS6A -351	Comprehensive Viva	4

Sixth Semester:

Code	Title	Credits (L T P)
CORE COURSES		
PS6A -302	Computer Graphics	4 (3-1-0)

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PS6A -304	Human Computer Interface	4 (3-1-0)
PS6A -306	Unix And Shell Programming	4 (3-1-0)
PS6A -308	System Analysis & Design	4 (3-1-0)
PS6A -310	Project	4
PS6A -312	Unix And Shell Programming Lab	2 (0-0-4)
PS6A -314	Computer Graphics Lab	2 (0-0-4)
PS6A -352	Comprehensive Viva	4

Seventh Semester:

Code	Title	Credits (L T P)
CORE COURSES		
PS6A -401	Design & Analysis of Algorithms	4 (3-1-0)
PS6A -403	Computer Architecture	4 (3-1-0)
PS6A -405	Advance Java	4 (3-1-0)
PS6A -407	Operating System	4 (3-1-0)
PS6A -409	Analog Electronics	4 (3-1-0)
PS6A -411	Advance Java Lab	2 (0-0-4)
PS6A -413	Design & Analysis of Algorithm Lab	2 (0-0-4)
PS6A -451	Comprehensive Viva	4

Eighth Semester:

Code	Title	Credits (L T P)
CORE COURSES		
PS6A -402	Computer Networks	4 (3-1-0)
PS6A -404	Theory of Computation	4 (3-1-0)
PS6A -406	Advance Database Management Systems	4 (3-1-0)
PS6A -408	Software Engineering	4 (3-1-0)
PS6A -410	Optimization Techniques	4 (3-1-0)
PS6A -412	Computer Network Lab	2 (0-0-4)
PS6A -414	Advance Database Lab	2 (0-0-4)
PS6A -452	Comprehensive Viva	4

Ninth Semester:

Code	Title	Credits (L T P)
CORE COURSES		
PS6A -501	Object Oriented Analysis and Design	4 (3-1-0)
PS6A -503	Compiler Design	4 (3-1-0)
PS6A -505	Network and Information Security	4 (3-1-0)
PS6A -507	Artificial Intelligence	4 (3-1-0)
PS6A -509	Bioinformatics	4 (3-1-0)
PS6A -511	Project	2 (0-0-4)
PS6A -513	Artificial Intelligence Lab	2 (0-0-4)
PS6A -551	Comprehensive Viva	4

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Tenth Semester:

Code	Title	Credits (L T P)
CORE COURSES		
PS6A -502	Data Mining and Warehousing	4 (3-1-0)
PS6A -504	Parallel Processing and Distributed Computing	4 (3-1-0)
PS6A -506	Enterprise computing Technique	4 (3-1-0)
PS6A -508	Managerial Economics	4 (3-1-0)
PS6A -510	Enterprises Computing Technique Lab	2 (0-0-4)
ELECTIVE COURSES-DISCIPLINE CENTRIC (Any One)		
PS6A -522	Multimedia Computing	4 (3-1-0)
PS6A -524	Software Testing & Quality Assurance	4 (3-1-0)
PS6A -526	Principal of Programming Language	4 (3-1-0)
PS6A -552	Comprehensive Viva	4

Eleventh Semester:

Code	Title	Credits (L T P)
CORE COURSES		
PS6A -601	Wireless and Mobile Computing	4 (3-1-0)
PS6A -603	Enterprise Resources Planning	4 (3-1-0)
PS6A -605	Research Methodology & Practices	6 (3-1-0)
PS6A -607	Wireless and Mobile Computing Lab	2 (0-0-4)
ELECTIVE COURSES-DISCIPLINE CENTRIC (Any One)		
PS6A -621	Cloud Computing	4 (3-1-0)
PS6A -623	Design Patterns	4 (3-1-0)
PS6A -625	Image Processing	4 (3-1-0)
PS6A -651	Comprehensive Viva	4

Twelfth Semester:

Code	Title	Credits (L T P)
CORE COURSES		
PS6A -602	Project	24

Note: The above programme structure can be modified as per requirement from time to time in accordance with University Ordinance No. 14.

PROGRAMME OUTCOMES:

- A project is also included in the curriculum for the post graduate degree to supplement detailed studies in advanced topics such as Simulation and Modelling, Advanced Database Management and Information Technology Project Management.

- Experimental Learning is learning by Experience. Philosophy is the cornerstone approach of IIPS. The fundamental tools and functional knowledge is developed through a carefully coordinated sequence of study in the first three years of the MCA programme.
- The next three years emphasize on refining this journey with practical exposure. The MCA curriculum includes project work that requires students to confront the actual challenges and dynamics faced by real companies making crucial decisions. Knowledge acquired in the classroom is bolstered with techniques of the workplace.
- Entrepreneurial Mindset Being able to think out of the box is essential in today's marketplace. In the MCA program, students also learn how to manage change and solve problems beyond the limitations of traditional paradigms. Equipped with this entrepreneurial tool kit, MCA professionals can organize and manage new ventures or provide added value to their employers.
- The major thrust is on giving the students a sound background in three components namely, computing, business functioning and mathematics fields, relevant to information technology. A strong laboratory component as a part of the curriculum, along with theory enables the students to learn concepts of Data base management system, Programming languages, computer network, Data structure, Artificial intelligence, System programming, Computer architecture etc.
- Advanced knowledge in Enterprises resource planning, Enterprises computing technique, network security, Compiler design, Soft-computing, Bioinformatics, Managerial economics, Cloud computing, design Pattern etc.
- Ability for higher education and research in the areas of Students has ability to do research in different area of computer science such as VLSI, Mobile computing, Artificial intelligence, Computer networks etc.

PROGRAMME SPECIFIC OUTCOMES:

The Programme Educational Objectives of MCA programme are:

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- The MCA program prepares students to take up positions as system analysts, systems designers, Programmers and managers in any field related to information technology.
- The program, therefore, aims at imparting comprehensive knowledge with equal emphasis on theory and practice.
- The MCA students are encouraged to spend a full semester (Twelfth Semester) working in the industry in the institute giving them insight into the workings of the IT world.
- Prepare Students who will contribute to society as broadly educated, expressive, ethical and responsible citizens with proven expertise
- Prepare Students who will thrive to pursue life-long learning to fulfill their goals