

**DIRECTORATE OF DISTANCE EDUCATION
PROGRAM PROJECT REPORT (PPR)
Master of Computer Application M.C.A.**

In

Open, Distance and Online Mode

To be offered from academic session

2022-23 onwards



Centre for Distance and Online Education

Devi Ahilya Vishwavidyalaya

Indore

Programme Mission and Objective

Background

Devi Ahilya Vishwavidyalaya (DAVV), formerly University of Indore, is a premier University in Central India, has completed 54th years of establishment, educational commitment and services. It is the First State University of Madhya Pradesh which has been accredited with "A+" grade by NAAC. It was established in 1964, by an Act of Legislature of Madhya Pradesh. The University jurisdiction spans across several districts which are in the urban as well as rural areas. The University is recognized for its innovative and professional programs which attract high employment ratio. University serves more than 3 lack students through its teaching departments affiliated colleges and centers. It has been offering several UG and PG Programs in Computer Science since last 30 years. The high demand ratio for the Computer Science is visible in term of high application to admission ratio. Moreover, Indore being a commercial city, host several large business due to IT hub of the central India offers employment opportunity to computer science professionals.

Mission:

Develop the Quality Professional in the field of Computer Science and Application.

Objectives:

1. Imparting fundamental knowledge of computer application discipline to the learners.
2. Demonstrate the ability to adapt to technological changes and innovations in the discipline.
3. Providing comprehensive insight into functional areas of computer science and applications.
4. To educated and prepare diverse group of men and women as per requirement of software industries.
5. Analyze, design, implement and evaluate computerized solutions to real life problems, using appropriate computing methods.
6. To bridge the gap between industry and academia by framing curricula and syllabi based on industrial and societal needs.
7. Identify, explain and apply fundamental structured programming techniques.
8. Develop computer programs using functional programming and object-oriented programming paradigms.
9. Apply techniques of software validation and reliability analysis to the development of computer programs.
10. Acquire the knowledge, skills, experience, and values to become lifelong learners able to obtain



Relevance of the Programme with HEI'S Mission and Goals

DAVV's Mission is to "Educate and empower the learners to realize their potential through righteous blending of knowledge, skills, and values for serving the society." To achieve this Mission, DAVV has laid out several objectives out of which following are specifically relevant to proposed MCA program :-

- Facilitating learner centric multidisciplinary course curriculum, pedagogy and resources through technology enabled joyful and diverse learning environment.
- Providing demand driven educational programs for enhancing skills and employability
- Addressing issues and priorities for empowering local community with a global perspective

The proposed MCA program offers a bouquet of courses that are meant to equip the graduates with professional competencies that make them "industry ready" thus generating higher employment in the region. It also encompassed the university's effort of making education available and affordable to all.

Nature of Prospective Target Group of Learners

The Program is designed to target all those graduates who are deprived of formal college education in conventional mode due to any reason and aspire to become a Quality Professional in the field of computer science and application.

The MCA course aim for the development of knowledge modules having the right content to take care of the aspirations of academic community and to address to the personalized and industrial needs of the learners under low level of disposable income, rural dwellers, women, unskilled men, minorities, disabled, etc. It will be open to all persons residing in any part of India and abroad irrespective of race, creed or class subject to the fulfilment of minimum qualifications prescribed for admission.

Therefore, prospective student for MCA (ODL and OL Mode) is a person who has completed his /her graduation in science discipline.

Appropriateness of Programme to be Conducted in Open, Distance and Online Mode to Acquire Specific Skills and Competence

The MCA program in Open, Distance and Online Mode deals with the learning outcomes aim at developing analytical/ programming skills and competencies consistent with the requirement of business and industry especially in software development and computer applications. To fulfill these needs, DDE-DAVV as a HEI for distance learning, plays important role by providing flexible and cost effective education to enhance their productivity skills while continuing.

This program aims at enabling the learning to acquire formal education at his/her own pace from his/her location and become employable. learners who have been working in business, industry, institutions and self-employed who don't find time to attend regular classes, find our MCA program quite useful. Our SLM is self explanatory.

The program has been designed by renowned industry experts and experienced academicians considering recent advancement in the field. Timely review of program to be done with a view to keep the content upgraded. Practical training will enable learner hands on training in the field. Our counselors are well oriented in terms of counseling of Self Learners, both face-to face and online.



They take great interest in counseling the students. They have been in this profession for the last many years. They have won the admiration and confidence of our learners.

Learners Outcome:

Learner will be able to:

- Identify and develop skills & knowledge required by professionals in different functional areas such as programming, software development, computer applications etc.
- Analyze, design, implement and evaluate computerized solutions to real life problems, using appropriate computing methods
- Apply techniques of software validation and reliability analysis to the development of computer programs.
- Acquire the knowledge, skills, experience, and values to become lifelong learners able to obtain

ELIGIBILITY AND DURATION

Programmes	Eligibility	Credits	Duration	Semester
MCA	BCA / Bachelor Degree in Computer Science Engineering or equivalent Degree OR Passed B.Sc./ B.Com/ B.A. with Mathematics at (10+2) level or at Graduation level.	96	2 Years	4 Semester

Credit system helps in mapping the academic achievement of a learner in a fairly accurate manner. This helps the student to understand the academic effort one has to put in to successfully complete the course. A Student is expected to cumulate a particular number of credits to qualify for the award of a degree.

Instructional Design

The MCA is divided into four semesters (two years). Every semester a learner studies specified courses, which consist of end semester exam (60% weightage) and internal assignments (40% weightage). In the last semester learners are required to undergo project work on computer science and applications.

Duration of the programme : The proposed program will be offered as a 02 years program consisting of 04 Semesters.

Curriculum Design : As per Annexure 1



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Detailed syllabus : The detailed syllabus is made by the expert Committee and is approved by appropriate authority. The syllabus is updated regularly to suit the industry needs.

Faculty and support staff Requirement : Identified as per need.

Instructional delivery mechanisms : As per Ordinance 14 of the University. This Ordinance is passed by the coordination committee at the state level and is applicable for all universities in the state of MP. DAVV has also adopted this ordinance for all programs.

Student support service systems : DAVV has a proper mechanism in place for student support services. For the students of DDE following support services are specially provided.

- Counseling sessions are provided to students to choose the courses of their interest and plan their courses of study for career advancement.
- Personal Contact Programme (PCP) / Doubt Clearing Sessions will be held in each semester as part of student support services. This would help the students to interact with experts in the course and clarify doubts.
- E-Learning portal for distance education students will be a medium for the dissemination of knowledge, skill enrichment, assist in examination preparation, exchange of experience and collaborative participation.
- Facilities and Guidance is provided to students for admission, Online classes and career guidance

Procedure for admissions, curriculum transaction and evaluation:

As per Ordinance 14 of the university (DAVV) and as decided by the university from time to time.

Requirement of the laboratory support and Library Resources:

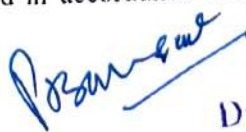
The University has a well-developed computer center which is available for the students of MCA program, other than this; a language lab is also functional in the university.

Cost estimate of the programme and the provisions:

A consolidated fee of Rs. 36,000 per annum will be charged.

Quality Assurance Mechanism:

The University has a well functioning Internal Quality Assurance cell. In addition, ODL has its own quality assurance committee which is formed in accordance with UGC guidelines. The Centre for



Internal Quality Assurance Committee oversees the functioning of Centre for Internal Quality Assurance and approves the reports generated by Centre for Internal Quality Assurance on the effectiveness of quality assurance systems and processes. There is a proper Quality Monitoring Mechanism in place that looks into areas like governance, formulation of Objectives, guiding the programme development and approval processes, programme monitoring and Review etc. There is an appropriate process of Quality Audit in place. Mechanism is being defined for Academic Planning, Validation, Monitoring, Evaluation and Enhancement Plans, monitoring Learner Support Centers, Examination Centers etc. Provisions are made to ensure "Quality Standard" for Learning Materials, audio video material and online and computer based material. The center will strive to maintain quality in the services provided to the learners and undertake self evaluative and reflective exercises for continual quality improvement in all the systems and processes of university. It will also undertake following activities for strengthening the program.

- Regular faculty development programs
- Feedback analysis for quality improvement
- Annual academic audit
- Standardization of learning resources by periodic revision of program depending upon the changing industry trends.

Expected programme outcomes:

After successful completion of the MCA program, below mentioned outputs are expected.

- Induce the self analyzing capability through critical thinking in order to address real time computing challenges.
- Identify, deep dive analyze, interpret and to formulate complex solutions using to various computing domains, Transform complex computing tasks into solvable parts of problem, investigate, develop solutions and propose integrated solutions using emerging technologies.
- Choose modern computing tools, skills and techniques necessary for software solutions and understand, develop and apply professional ethics and cyber guidelines as suitable to commercial environments.
- One who looking forward to pursue their career in Computer Science and Applications, reduce the gap of employable graduates required by industry by expanding the program to remote areas, and contribute to enhancing gross enrollment ratio in higher education.


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MCA (2022-23)

I Semester:

SubjectCode	Subject Name	L	T	P	C
CS-101	Computer Organization and Architecture	3	1	2	5
CS-102	Mathematical Foundation for Computer Application	2	1	0	4
CS-103	Data Structures using C++	3	1	2	6
CS-104	Operating Systems	3	1	2	5
IC-105	Communication Skills and Report Writing	2	1	0	3
CS-106	Comprehensive Viva	-	-	-	4
Total Credit					27

II Semester:

SubjectCode	Subject Name	L	T	P	C
CS-201	Database Management System	3	1	4	6
CS-202	Software Engineering	3	1	0	4
CS-203	Design and Analysis of Algorithm	3	1	2	5
CS-204	Computer Networks	3	1	0	4
IC-205	Internet and Web Technology	3	1	4	6
CS-206	Comprehensive Viva	-	-	-	4
Total Credit					29



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III Semester:

SubjectCode	Subject Name	L	T	P	C
CS-301	Automata Theory and Compiler Construction	3	1	2	5
CS-302	Cloud Computing	3	1	2	5
CS-303	Artificial Intelligence and Machine Learning	3	1	2	5
CS-304	Information Security	3	1	2	5
CS-305	Internet of Things	3	1	2	5
CS-306	Comprehensive Viva	-	-	-	4
Total Credit					29

IV Semester:

SubjectCode	Subject Name	L	T	P	C
CS-401	Project				12
Total Credit					12


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2 years MCA after graduation

Proposed ordinance for MCA
ORDINANCE NO. 46 (Revised)

1. DEGREE TITLE: MASTER OF COMPUTER APPLICATIONS(MCA)
2. NAME OF FACULTY: FACULTY OF ENGINEERING SCIENCES
3. DURATION OF COURSE: TWO YEARS
4. ELIGIBILITY FOR ADMISSION:
As decided by AICTE/UGC/State Government from time to time
5. ADMISSION PROCEDURE:
As decided by AICTE/UGC/State Government from time to time for admission in 1st year
6. TOTAL SEATS:
As decided by AICTE/UGC/State Government from time to time.
7. FEE STRUCTURE:
As decided by University/State Government from time to time
8. EXAMINATION, CURRICULUM & RELATED REGULATIONS:
As per existing University/State Government/ AICTE regulations
9. ELIGIBILITY FOR DEGREE:
A candidate shall be eligible for degree of MASTER OF COMPUTER APPLICATIONS(MCA) after successful completion of examination as per Ordinance in applicable for UTD of DAVV.
10. ATTENDANCE REQUIREMENT:
A candidate should have at least 75% attendance in Theory and Practical separately. In exceptional cases, it may be relaxed as admissible under applicable Ordinances.
11. GENERAL INSTRUCTIONS & SPECIFIC PROVISION:

In matters not covered in this Ordinance, General Rules of University as applicable in semi-ster examination shall apply. In other matters, EXECUTIVE COUNCIL of university shall be competent to take decision

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11/08/2020

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11.8.2020

RSB
11.8.2020

Moharow

Pranveer

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