Study & Evaluation Scheme

of

Master of Computer Applications

[Applicable w.e.f. Academic Session - 2020-21 till revised]
[As per CBCS guidelines given by UGC]

COLLEGE OF COMPUTING SCIENCES AND INFORMATION TECHNOLOGY

TEERTHANKER MAHAVEER UNIVERSITY
N.H.-24, Delhi Road, Moradabad, Uttar Pradesh-244001
Website: www.tmu.ac.in

		assess the following aspects of learning: Remember, Understand, Apply, Analyze, Evaluate & Create (reference to Bloom's Taxonomy).
	2	Case Study is essential in every question paper (wherever it is being taught as a part of pedagogy) for evaluating higher-order learning. Not all the courses might have case teaching method used as pedagogy.
	3	There shall be continuous evaluation of the student and there will be a provision of fortnight progress report.

Program Structure-MCA

A. Introduction:

The **Master of Computer Application (MCA)** is postgraduate programs or courses which have guidelines and eligibility set out by the All India Council of Technical Education (AICTE). They are typically three-year programs that span six semesters. They are designed to bridge the gap between the studies of computers and its applications. The master's program aims to shape computer professionals with the right moral and ethical values and can prepare students to face the challenges and opportunities in the IT industry of India by building strong foundations.

High-quality technical education is essential for the digital age and using technology is powerful way to enhance changing requirements of the IT industry, corporate, business and society. MCA students should be equipped to work across time zones, languages, and cultures. Employability, innovation, theory to practice connectedness is the central focus of MCA curriculum. The curriculum is designed as such that the students can gain an in-depth mastery of the academic disciplines and applied functional areas necessary to meet the requirements of business enterprises and the industry.

The institute emphasis on the following courses *balanced with core and elective courses:* The curriculum of MCA program emphasizes an intensive education with 106 credits of core/ skill enhancement/ ability enhancement compulsory courses, 16 credits of discipline specific elective courses and 32 credits of lab/ project work. Total 154 credits are allotted for the MCA degree. However, the minimum number of the credits for award of MCA degree will be 148 credits.

The institute offers Master of Computer Applications course, higher level subjects like computer organization, data and file structuring using C, operating system, computer networks, modelling and simulation, visual basic, combinatory and graph theory, computer graphics, system programming and computer based numerical and statistical techniques are generally taught. In the final semester, you will most likely need to specialize in a topic in the form of project work. The course stresses the application of theory and computing principles through project work, case studies, presentations and practical assignments. Some of the popular fields which are generally chosen by students for MCA specialization are application software, hardware technology, systems management, systems development, and management information systems.

Course handouts for students will be provided in every course. A course handout is a thorough teaching plan of a faculty taking up a course. It is a blueprint which will guide the students about the pedagogical tools being used at different stages of the syllabus coverage and more specifically the topic-wise complete plan of discourse, that is, how the faculty members treat each and every topic from the syllabus and what they want the student to do, as an extra effort, for creating an effective learning. It may be a case study, a role-play, a classroom exercise, an assignment- home or field, or anything else which is relevant and which can enhance their learning about that particular concept or topic. Due to limited availability of time, most relevant topics will have this kind of method in course handout.

B. Choice Based Credit System (CBCS)

Syllabus as per CBCS (2019-20)

Choice Based Credit System (CBCS) is a versatile and flexible option for each student to achieve his target number of credits as specified by the UGC and adopted by our University.

S.No.	Type of Course	Credit Hours	Total Credits
MCA : Three-Year (6-Semester) CBCS Programme		
Basic Structure: Distribution of Courses		
1	Core Course (CC)	15 Courses of 4 Credits each (Total Credits 15X4) 02 Courses of 3 Credits each (Total Credits 2X3)	66
2.	Laboratory Course (LC)	08 Courses of 2 Credits each (Total Credits 8X2) 01 Courses of 1 Credit each (Total Credits 1X1)	17
3	Ability-Enhancement Compulsory Course (AECC)	04 Course of 4 Credits each (Total Credits 4X4) 01 Course of 2 Credits each (Total Credits 1X2)	18
4	Skill-Enhancement Course (SEC)	01 Course of 4 Credits each (Total Credits 1X4) 04 Course of 3 Credits each (Total Credits 4X3) 01 Course of 2 Credits each (Total Credits 1X2) 04 Course of 1 Credit each (Total Credits 4X1)	22
5	Program/Discipline Specific Elective Course (DSEC)	04 Courses of 4 Credits each (Total Credits 4X4)	16
6	Project (PROJ)	01 Course of 3 Credits each (Total Credits 1X3) 01 Course of 12 Credits each (Total Credits 1X12)	15
7	Value Added Course (VAC)	05 Courses of 0 Credit each (Total Credits 6X0)	0
	Total Credits		**154**

The following is the course module designed for the MCA programme:

Core Course (CC): Core courses will provide a holistic approach to computer science/ application education, giving students an overview of the IT industries, a basis to build and specialize upon.

Laboratory Course (LC): Laboratory courses will provide more practical-based knowledge. Laboratory courses will also provide knowledge to develop application as well as system software's.

Ability Enhancement Compulsory Course (AECC): As per the guidelines of Choice Based Credit System (CBCS) for all Universities, including the private Universities, the Ability Enhancement Compulsory Course (AECC) is a course designed to develop the ability of students in communication (especially English) and other related courses where they might find it difficult to communicate at a higher level in their prospective job at a later stage due to lack of practice and exposure in the language, etc. Students are motivated to learn the theories, fundamentals and tools of communication which can help them develop and sustain in the corporate environment and culture.

Skill Enhancement Course: This course may be chosen from a pool of courses designed to provide skill-based knowledge. We offer theory and lab based SEC.

Value Added Course (VAC): A value added audit course is a non-credit course which is basically meant to enhance general ability of students in areas like soft skills, quantitative aptitude and reasoning ability - required for the overall development of a student and at the same time crucial for industry/corporate

Course handouts for students will be provided in every course. A course handout is a thorough teaching plan of a faculty taking up a course. It is a blueprint which will guide the students about the pedagogical tools being used at different stages of the syllabus coverage and more specifically the topic-wise complete plan of discourse, that is, how the faculty members treat each and every topic from the syllabus and what they want the student to do, as an extra effort, for creating an effective learning. It may be a case study, a role-play, a classroom exercise, an assignment, or anything else which is relevant and which can enhance their learning about that particular concept or topic. Due to limited availability of time, most relevant topics will have this kind of method in course handout.

S.No.	Type of Course	Credit Hours	Total Credits
	MCA : Two-Year (4-Semester) CBCS Programme		
	Basic Structure: Distribution of Courses		
1	Core Course (CC)	10 Courses of 4 Credits each (Total Credits 10X4) 01 Course of 3 Credits each (Total Credits 1X3) 01 Course of 2 Credits each (Total Credits 1X2)	45
2.	Laboratory Course (LC)	06 Courses of 2 Credits each (Total Credits 6X2) 01 Course of 1 Credits each (Total Credits 1X1)	13
3	Ability-Enhancement Compulsory Course (AECC)	01 Course of 4 Credits each (Total Credits 1X4)	04
4	Skill-Enhancement Course (SEC)	01 Course of 4 Credits each (Total Credits 1X4) 01 Course of 2 Credits each (Total Credits 1X2) 01 Course of 1 Credits each (Total Credits 1X1)	07
5	Program/Discipline Specific Elective Course (DSEC)	04 Courses of 4 Credits each (Total Credits 4X4)	16
6	Project (PROJ)	01 Course of 6 Credits each (Total Credits1X6) 01 Course of 14 Credits each (Total Credits1X14)	20
7	Value Added Course (VAC)	04 Courses of 0 Credits each (Total Credits 6X0)	0
8	Bridge Course (BC)	03 Courses of 0 Credits each (Total Credits 3X0)	0
	Total Credits		**105**

Contact hours include work related to Lecture, Tutorial and Practical (LTP), where our institution will have flexibility to decide course wise requirements.

B. Choice Based Credit System (CBCS)

Choice Based Credit System (CBCS) is a versatile and flexible option for each student to achieve his target number of credits as specified by the UGC and adopted by our University.

The following is the course module designed for the MCA program:

Core Course (CC): Core courses will provide a holistic approach to computer science/ applications education, giving students an overview of the IT industries, a basis to build and specialize upon.