Master of Computer Applications (MCA).

The objectives of the Master of Computer Applications (MCA) at the faculty of Humanities and Social Sciences of Tribhuvan University is to prepare human resource for productive careers in the field of software development, IT Entrepreneur and academic institutions by providing an outstanding environment for teaching, research and development in the core and emerging trends of the discipline.

Credit & Duration of Program

Master of Computer Applications (MCA) is 63 credit program. The program is practical as well as theoretical in nature class load is as specified in the course structure section. The duration of the program is two years. Each year is divided into two semesters. Semester duration is of 16 weeks of working days for teaching learning excluding examinations and other activities.

Medium of Instruction and Examination

The medium of instruction and examination in the Master of Computer Applications (MCA) program shall be English.

Entry Requirement

The entry requirement for students in Master of Computer Applications (MCA) is:

Bachelor of Computer Applications (BCA) completed with minimum B- grade or second division in equivalent degree from recognized institution.

Besides this academic requirement, an entrance will be conducted for all applicants by the Dean's Office, Faculty of Humanities and Social Sciences (FOHSS).

Admission Procedure

An Entrance exam shall be conducted once a year by Dean's Office, FOHSS. Eligible successful candidates shall be admitted on merit basis.

Academic Schedule

The academic session of the program consists of two semesters per year. The fall semester begins in September and the spring semester begins in February. Dean's Office, FOHSS will publish academic calendar.

Students Evaluation

The students' academic performance during a semester is evaluated using the system of continuous assessment (Internal & External Assessment).

The concern institution/department conducts the minimum of two internal assessments (MidTerm & Pre-final Examination) during the session and it will be evaluated by subject teacher.

University conducts the external assessment (Final Examination) at the end of semester.

Final practical examination shall be conducted by concerned institution/department.

Dean's Office, FOHSS will not conduct final examinations for elective courses and in courses which are offered as intensive courses conducted by reputed national/international scholar.

Master of Computer Applications(MCA) Course Structure

1st Year / I Semester					
SN	Course Code	Course Name	Total Credit Hrs.	Theory Hrs.	Practical Hrs.
1	MCA501	Discrete Structure	3	3	2
2	MCA502	Advanced Operating System	3	3	2
3	MCA503	Advanced Database Management System	3	3	2
4	MCA504	Programming Logic & Techniques using Python	3	3	2
5	MCA505	Research Methodology in Computer Applications	3	3	2
6	MCA506	Technical Writing	1	-	2
Total Credits			16		
1st Year / II Semester					
SN	Course Code	Course Name	Total Credit Hrs.	Theory Hrs.	Practical Hrs.
1	MCA551	Algorithm Analysis & Design	3	3	2
2	MCA552	Object Oriented Software Engineering	3	3	2
3	MCA553	Internet & Web Programming	3	3	2
4	MCA554	Project I	3	-	6
5	MCA555	Academic Writing – I	1	-	2
6		Elective I	3		
Total Credits			16		
Elective Courses					
1	MCA556	Digital Humanity	3	3	1
2	MCA557	Digital Marketing	3	3	2
3	MCA558	Knowledge Management	3	3	2
4	MCA559	E-Governance	3	3	2

2nd Year / III Semester					
SN	Course Code	Course Name	Total Credit Hrs.	Theory Hrs.	Practical Hrs.
1	MCA601	Cryptography and Network Security	3	3	2
2	MCA602	Data Mining & Data Warehousing	3	3	2
3	MCA603	Project II	3	-	6
4	MCA604	Academic Writing – II	1	-	2
5		Elective II	3		
6		Elective III	3		
Total Credits			16		
Elective Courses					
1	MCA605	Big Data Management	3	3	2
2	MCA606	Managerial Economics	3	3	1
3	MCA607	Virtualization & Cloud Computing	3	3	2
4	MCA608	Image Processing	3	3	2
5	MCA609	Artificial Intelligence	3	3	2
6	MCA610	Digital Forensics	3	3	2
7	MCA611	GIS & Remote Sensing	3	3	2
8	MCA612	Data Science	3	3	2
2nd Year / IV Semester					
SN	Course Code	Course Name	Total Credit Hrs.	Theory Hrs.	Practical Hrs.
1	MCA651 Dissertation / MCA652 Project III		9	-	15
2		Elective IV	3		
3		Elective V	3		
Total Credits			15		
Elective Courses					
1	MCA653	Machine Learning	3	3	2
2	MCA654	Internet of Things (IoT)	3	3	2
3	MCA655	Information Security Audit	3	3	2
4	MCA656	Natural Language Processing	3	3	2
5	MCA657	IT Infrastructure Management	3	3	2
6	MCA658	Quantum Computing	3	3	2
7	MCA659	Business Intelligence	3	3	2

8	MCA660	UI/UX Design	3	3	2