

MASTER OF COMPUTER APPLICATIONS (MCA) - COURSE STRUCTURE

(2016 Admission)

Semester I

Course Code	Paper	Marks		Credit
		Internal	External	
CAS2101	Introduction to Computer Science	50	50	3
CAS2102	Programming in C	50	50	4
CAS2103	Computer Organization	50	50	4
CAS2104	System Software	50	50	3
CAS2105	Discrete Structures and Graph Theory	50	50	3
CAS2106	C Programming LAB**	50	50	2
Total				19

Semester II

Course Code	Paper	Marks		Credit
		Internal	External	
CAS2201	Data Base Management Systems	50	50	3
CAS2202	Object Oriented Programming with C++	50	50	3
CAS2203	Operating System	50	50	3
CAS2204	Data Structures and Algorithms	50	50	3
CAS2205	Elective I	50	50	3
CAS2206	C++ and DBMS Programming LAB**	50	50	2
Total				17

Semester III

Course Code	Paper	Marks		Credit
		Internal	External	
CAS2301	Advanced Data Structures and Algorithms	50	50	3
CAS2302	Computer Graphics	50	50	3
CAS2303	Software Engineering	50	50	4
CAS2304	Elective II	50	50	4
CAS2305	Elective III	50	50	3
CAS2306	Data Structures and Graphics LAB**	50	50	2
Total				19

Semester IV

Course Code	Paper	Marks		Credit
		Internal	External	
CAS2401	Networks and Data Communications	50	50	3
CAS2402	Applied Numerical Techniques	50	50	3
CAS2403	Elective IV	50	50	3
CAS2404	Elective V	50	50	3
CAS2405	Mini Project Work	50	50	4
CAS2406	Networking & Network Programming LAB**	50	50	2
Total				18

Semester V

Course Code	Paper	Marks		Credit
		Internal	External	
CAS2501	Simulation and Modelling	50	50	4
CAS2502	Elective VI	50	50	3
CAS2503	Elective VII	50	50	3
CAS2504	Elective VIII	50	50	3
CAS2505	Elective IX	50	50	3
CAS2506	Seminar	100	0	3
Total				19

Semester VI

Course Code	Paper	Marks		Credit
		Internal	External	
CAS2601	Project Work and Viva-Voce	200	200	16
Total				16

List of Electives

<p>Semester II</p> <p>CAS 2211 Number Theory CAS 2212 Number Theory and Cryptography CAS 2213 Applied Probability and Statistics CAS 2214 Web Commerce Technologies CAS 2215 Multimedia System Design CAS 2216 JAVA Programming</p>	<p>Semester III</p> <p>CAS 2311 Digital Electronics CAS 2312 Object Oriented Design *CAS 2314 Advanced JAVA Programming *CAS 2315 Web Enabled JAVA Programming CAS 2316 Operations Research</p>
<p>Semester IV</p> <p>CAS 2411 Advanced JAVA Mobile Programming CAS2412 Visual Programming VB.NET CAS2413 Android Application Programming CAS 2414 Web Application Design using PHP CAS2416 Security in Computing CAS2417 Software Project Management CAS 2418 Cryptography and Network Security CAS 2419 Intelligent Systems CAS 2420 Digital Image Processing</p>	<p>Semester V</p> <p>CAS 2511 Artificial Intelligence CAS 2512 Data Mining CAS 2513 Theory of Computation CAS 2514 Software Quality CAS 2515 Security Measures in the Computing Systems CAS 2516 Software Testing CAS 2517 Steganography & Digital Water Marking CAS 2518 Compiler Design CAS 2519 Business Analytics</p>
<p>* Only one elective from CAS 2314 Advanced JAVA Programming and CAS 2315 Web Enabled JAVA Programming can be selected for the entire course.</p>	

*Syllabus to be approved by the Board of Studies

NOTE:

** Students are expected to do at least 20 programs covering all the units of the prescribed syllabi of the concerned subjects. During the examination one or two programs are expected to be asked from the above topics which can be completed in three hours of time.