

Master of Science in Computer Science (M.Sc.)

Course Structure and Scheme of Valuation w.e.f. 2016-17

I SEMESTER

Code	Name of the subject	Periods/week		Max. Marks		Total	Credits
		Theory	Lab	Ext.	Int.		
MSCS 1.1	Discrete Mathematical Structures	4	--	70	30	100	4
MSCS 1.2	Data Structures & File Structures	4	--	70	30	100	4
MSCS 1.3	Computer Organization & Architecture	4	--	70	30	100	4
MSCS 1.4	Object oriented Programming using C++ & JAVA	4	--	70	30	100	4
MSCS 1.5	Advanced Computer Networks	4	--	70	30	100	4
MSCS 1.6	Data & File Structures Lab	--	3	50	50	100	2
MSCS 1.7	Computer Organization Lab	--	3	50	50	100	2
Total		20	6	450	250	700	24

II SEMESTER

Code	Name of the subject	Periods/week		Max. Marks		Total	Credits
		Theory	Lab	Ext.	Int.		
MSCS 2.1	Formal Languages & Automata Theory	4	--	70	30	100	4
MSCS 2.2	Relational Data Base Management Systems	4	--	70	30	100	4
MSCS 2.3	Advanced Operating Systems	4	--	70	30	100	4
MSCS 2.4	Elective I	4	--	70	30	100	4
MSCS 2.5	Elective-II	4	--	70	30	100	4
MSCS 2.6	Advanced JAVA Programming Lab	--	3	50	50	100	2
MSCS 2.7	Relational Data Base Management Systems Lab	--	3	50	50	100	2
Total		20	6	450	250	700	24

Elective I: Design and Analysis of Algorithms/Image Processing/ Embedded Systems

Elective II: Web Technologies/Mobile Computing/Wireless Sensor Networks

III SEMESTER

Code	Name of the subject	Periods/week		Max. Marks		Total	Credits
		Theory	Lab	Ext.	Int.		
MSCS 3.1	Data Warehousing & Mining	4	--	70	30	100	4
MSCS 3.2	Object Oriented Software Engineering	4	--	70	30	100	4
MSCS 3.3	Network Security & Cryptography	4	--	70	30	100	4
MSCS 3.4	Elective III	4	--	70	30	100	4
MSCS 3.5	MOOCS-I		--	--	--	100	2
MSCS 3.6	OOSE Lab	--	3	50	50	100	2
MSCS 3.7	Network Programming Lab	--	3	50	50	100	2
MSCS 3.8	Seminar on Advanced Topics	--	--	--	--	--	3
Total		16	6	450	250	700	25

Elective III: Artificial Intelligence / Operations Research / Cloud computing/Big Data Analytics

MOOCS-I :

Each student should learn any one of the following topics by registering for courses through Online instruction from standard e-learning portals like nptel, coursera, etc. and write the examination conducted as per the university norms.

List of topics for MOOCS-I:

Internet of Things/ R Programming for Data Analytics/ Data Visualization using Tableau/ MongoDB for Developers/ Matlab for Modeling and Simulation/ Python programming/ Mobile Application Development on Android systems

IV SEMESTER

Code	NAME OF THE SUBJECT	MAXIMUM MARKS			CREDITS
		INTERNAL	EXTERNAL	TOTAL	
MSCS 4.1	PROJECT/ THESIS WORK	50	50	100	14
Total Credits (Complete Course)					87

Instructions for Project

- Three Stages In Project adjudication:
 Stage I: Presentation of Concept Note & Problem Approval by Guide
 Stage II: Progress Approval by System Demonstration with results Internal -**50 Marks**
 Stage III: Final Presentation with Documentation & External Viva-Voce - **50 Marks**
- Candidates can do their thesis work within the department or in any industry/research organization in 4th semester. In case of thesis done in an industry/research organization, one advisor (Guide) should be from the department and one advisor (CO-Guide) should be from the industry/research organization.