

**NATIONAL INSTITUTE OF TECHNOLOGY NAGALAND
CHUMUKEDIMA, DIMAPUR – 797 103**

**M.Tech. Degree Programme
Curriculum**

Regulations 2014

Master of Technology in Computer Science and Engineering

Overall Course Structure

Category	Total No. of Courses	Credits	Percentage
Core Courses	11	35	49
Project and Comprehensive Viva-Voce	3	19	26
Electives	6	18	25
TOTAL	21	72	100

Course Credits - Semester Wise

PG Course	I	II	III	IV	TOTAL
Computer Science and Engineering	22	21	17	12	72

Semester I

Course Code	Course Title	L	T	P	C
MA103	Mathematical Concepts of Computer Science	3	1	0	4
CP101	Advanced Data Structures and Algorithms	3	0	0	3
CP102	Multi-Core Architecture	3	0	0	3
CP103	Recent Trends in Programming Paradigms	3	0	0	3
CP104	Design and Management of Computer Networks	3	1	0	4
CP9XX	Elective - I	3	0	0	3
CP105	Algorithms and Programming Laboratory	0	0	3	2
TOTAL		18	2	3	22

Semester II

Course Code	Course Title	L	T	P	C
CP151	Object Oriented Systems Design	3	1	0	4
CP152	Advanced Operating Systems	3	0	0	3
CP153	Advances in Database Technology	3	0	0	3
CP9XX	Elective - II	3	0	0	3
CP9XX	Elective - III	3	0	0	3
CP9XX	Elective - IV	3	0	0	3
CP154	Software Systems Laboratory	0	0	3	2
TOTAL		18	1	3	21

Semester III

Course Code	Course Title	L	T	P	C
CP201	Security in Computing	3	1	0	4
CP9XX	Elective - V	3	0	0	3
CP9XX	Elective - VI	3	0	0	3
CP202	Comprehensive Viva-Voce	0	0	2	1
CP203	Project Phase I	0	0	12	6
TOTAL		9	1	14	17

Semester IV

Course Code	Course Title	L	T	P	C
CP251	Project Phase II	0	0	24	12
TOTAL		0	0	24	12

ODD SEMESTER ELECTIVES

Course Code	Course Title	L	T	P	C
CP901	Unix Internals	3	0	0	3
CP902	Wireless and Sensor Networks	3	0	0	3
CP903	Distributed Computing	3	0	0	3
CP904	Browser Engineering	3	0	0	3
CP905	Open Source Systems	3	0	0	3
CP906	Big Data Analytics	3	0	0	3
CP907	Advanced Digital Communication Techniques	3	0	0	3
CP908	Service Oriented Architecture	3	0	0	3
CP909	Software Reliability	3	0	0	3
CP910	Human Computer Interaction	3	0	0	3
CP911	Data Mining Techniques	3	0	0	3
CP912	XML and Web Services	3	0	0	3
CP913	Social Network Analysis	3	0	0	3
CP914	Artificial Intelligence	3	0	0	3
CP915	Advanced Linux System Programming	3	0	0	3

EVEN SEMESTER ELECTIVES

Course Code	Course Title	L	T	P	C
CP951	Performance Evaluation of Computer and Network Systems	3	0	0	3
CP952	Soft Computing	3	0	0	3
CP953	Machine Learning Techniques	3	0	0	3
CP954	Network Protocols	3	0	0	3
CP955	Design and Analysis of Parallel Algorithms	3	0	0	3
CP956	Bio-Informatics	3	0	0	3
CP957	Real Time Systems	3	0	0	3
CP958	Formal Models of Software Systems	3	0	0	3
CP959	Graph Theory and Network Algorithms	3	0	0	3
CP960	Programming Tools and Techniques	3	0	0	3
CP961	Fault Tolerant Computing	3	0	0	3
CP962	Cloud Computing	3	0	0	3
CP963	Virtualization Techniques	3	0	0	3
CP964	Cryptography & Network Security	3	0	0	3