

**LIST OF COURSES TO BE OFFERED IN THE FIRST YEAR,
SECOND YEAR, THIRD YEAR
INTEGRATED M.Sc. (CA&IT) (*)**

M.Sc. (CA&IT) – SEMESTER SYSTEM STRUCTURE

SEMESTER – I

COURSE NO.	COURSE TYPE	Course / Subject	CREDITS
KS_C_EC-111	ELECTIVE	FROM THE LIST BELOW	2
KS_C_FC-112	FOUNDATION	FROM THE LIST BELOW	2
KS_C_CC-113	CORE	FUNDAMENTALS OF PROGRAMMING	3
KS_C_CC-114	CORE	FUNDAMENTALS OF COMPUTER ORGANIZATION	3
KS_C_CC-115	CORE	MATHEMATICAL CONCEPTS	3
KS_C_CC-116	CORE	COMMUNICATION SKILLS	3
KS_C_CC-117	CORE	DATABASE MANAGEMENT SYSTEMS CONCEPTS	3
KS_C_CC-118	CORE	IMPLEMENTATION OF C (PRACTICAL ON CC-113)	3
KS_C_CC-119	CORE	IMPLEMENTATION OF OFFICE APPLICATIONS(PRACTICAL)	3
		TOTAL CREDITS	25
ELECTIVE COURSE		FOUNDATION COURSE	
<ul style="list-style-type: none"> • LEARNING FROM WORLD LEADERS • HEALTH EDUCATION • MUSIC • FUNDAMENTALS OF MANAGEMENT 		<ul style="list-style-type: none"> • ORAL AND WRITTEN COMMUNICATION • INDIAN CULTURE AND CIVILIZATION • ELEMENTARY NUMBER THEORY • FINANCIAL ACCOUNTING AND MANAGEMENT 	

SEMESTER – II

COURSE NO.	COURSE TYPE	Course / Subject	CREDITS
KS_C_EC-121	ELECTIVE	FROM THE LIST BELOW	2
KS_C_FC-122	FOUNDATION	FROM THE LIST BELOW	2
KS_C_CC-123	CORE	MATRIX ALGEBRA AND GRAPH THEORY	3
KS_C_CC-124	CORE	DATABASE MANAGEMENT SYSTEMS USING SQL /PLSQL	3
KS_C_CC-125	CORE	COMMERCIAL COMMUNICATION	3
KS_C_CC-126	CORE	ADVANCE C PROGRAMMING	3
KS_C_CC-127	CORE	IMPLEMENTATION OF SQL/PLSQL (PRACTICAL ON CC-124)	3
KS_C_CC-128	CORE	IMPLEMENTATION OF C PROGRAMMING (PRACTICAL ON CC-126)	3
KS_C_CC-129	CORE	MULTIMEDIA (PRACTICAL)	3
		TOTAL CREDITS	25
ELECTIVE COURSE		FOUNDATION COURSE	
<ul style="list-style-type: none"> • ENVIRONMENT AL STUDIES 		<ul style="list-style-type: none"> • GEOGRAPHY • TAXATION LAWS • PERSONALITY DEVELOPMENT 	

SEMESTER – III

COURSE NO.	COURSE TYPE	Course / Subject	CREDITS
KS_C_EC-231	ELECTIVE	FROM THE LIST BELOW	2
KS_C_FC-232	FOUNDATION	FROM THE LIST BELOW	2
KS_C_CC-233	CORE	COMPUTER ORIENTED STATISTICAL METHODS	3
KS_C_CC-234	CORE	CONCEPTS OF OPERATING SYSTEM	3
KS_C_CC-235	CORE	OBJECT ORIENTED PROGRAMMING WITH C++	3
KS_C_CC-236	CORE	DATA STRUCTURES	3
KS_C_CC-237	CORE	DISCRETE MATHEMATICS	3
KS_C_CC-238	CORE	IMPLEMENTATION OF C++ (PRACTICAL ON CC-235)	3
KS_C_CC-239	CORE	IMPLEMENTATION OF DATA STRUCTURE (PRACTICAL ON CC-236)	3
		TOTAL CREDITS	25
ELECTIVE COURSE		FOUNDATION COURSE	
<ul style="list-style-type: none"> • FUNDAMENTALS OF ECONOMICS • DISASTER MANAGEMENT 		<ul style="list-style-type: none"> • SOFT SKILL DEVELOPMENT • ADVANCED NUMBER THEORY(*) 	

- Offered to only those students who take Elementary Number Theory in SEM-I.

SEMESTER – IV

COURSE NO.	COURSE TYPE	Course / Subject	CREDITS
KS_C_EC-241	ELECTIVE	FROM THE LIST BELOW	2
KS_C_FC-242	FOUNDATION	FROM THE LIST BELOW	2
KS_C_CC-243	CORE	COMPUTER ORIENTED NUMERICAL METHODS	3
KS_C_CC-244	CORE	OPEN SOURCE TECHNOLOGY	3
KS_C_CC-245	CORE	SYSTEM ANALYSIS , DESIGN AND MODELING	3
KS_C_CC-246	CORE	CLIENT SERVER ARCHITECTURE	3
KS_C_CC-247	CORE	IMPLEMENTATION OF OPEN SOURCE TECHNOLOGY (PRACTICAL ON CC-244)	3
KS_C_CC-248	CORE	WEB TECHNOLOGY (PRACTICAL) javascript / vb script/xml	3
KS_C_CC-249	CORE	IMPLEMENTATION OF CLIENT SERVER ARCHITECTURE (PRACTICAL ON CC-246)	3
		TOTAL CREDITS	25
ELECTIVE COURSE		FOUNDATION COURSE	
<ul style="list-style-type: none"> • HERITAGE AND CULTURE OF GUJARAT • INTRODUCTION TO HUMANITIES 		<ul style="list-style-type: none"> • BUSINESS COMMUNICATION • THEORY OF COMPUTING 	

SEMESTER – V

COURSE NO.	COURSE TYPE	Course / Subject	CREDITS
KS_C_SE-351	SUBJECT ELECTIVE	FROM THE LIST BELOW	3
KS_C_FC-352	FOUNDATION	FROM THE LIST BELOW	2
KS_C_CC-353	CORE	SOFTWARE ENGINEERING	3
KS_C_CC-354	CORE	COMPUTER GRAPHICS	3
KS_C_CC-355	CORE	CORE JAVA	3
KS_C_CC-356	CORE	IMPLEMENTATION OF COMPUTER GRAPHICS (PRACTICAL ON KS_C_FC-354)	3
KS_C_CC-357	CORE	IMPLEMENTATION OF CORE JAVA(PRACTICAL ON KS_C_CC-355)	3
KS_C_CC-358	CORE	SOFTWARE PROJECT DEVELOPMENT-I	5
		TOTAL CREDITS	25
SUBJECT ELECTIVE COURSE		FOUNDATION COURSE	
<ul style="list-style-type: none"> • CYBER LAW AND INTELLECTUAL PROPERTY 		<ul style="list-style-type: none"> • TECHNICAL COMMUNICATION • REPORT WRITING 	

SEMESTER – VI

COURSE NO.	COURSE TYPE	Course / Subject	CREDITS
KS_C_SE-361	SUBJECT ELECTIVE	FROM THE LIST BELOW	3
KS_C_FC-362	FOUNDATION	FROM THE LIST BELOW	2
KS_C_CC-363	CORE	DATA COMMUNICATION AND NETWORKING	3
KS_C_CC-364	CORE	SYSTEM SOFTWARE	3
KS_C_CC-365	CORE	E-COMMERCE AND E-GOVERNANCE	3
KS_C_CC-366	CORE	IMPLEMENTATION OF DATA COMMUNICATION AND NETWORKING (PRACTICAL ON CC-363)	3
KS_C_CC-367	CORE	IMPLEMENTATION OF SYSTEM SOFTWARE (PRACTICAL ON CC -364)	3
KS_C_CC-368	CORE	SOFTWARE DEVELOPMENT	5
		TOTAL CREDITS	25
SUBJECT ELECTIVE COURSE		FOUNDATION COURSE	
<ul style="list-style-type: none"> • ADVANCED JAVA • ADVANCED WEB TECHNOLOGY • ASP.NET 		<ul style="list-style-type: none"> • RESEARCH METHODOLOGY 	

**LIST OF COURSES TO BE OFFERED IN THE FOURTH YEAR,
FIFTH YEAR
INTEGRATED M.Sc. (CA&IT) (*)**

SEMESTER - VII

COURSE NO.	COURSE TYPE	Course / Subject	CREDITS
KS_C_SE-471	SUBJECT ELECTIVE	FROM THE LIST BELOW	3
KS_C_FC-472	FOUNDATION	FROM THE LIST BELOW	2
KS_C_CC-473	CORE	OPERATIONS RESEARCH	3
KS_C_CC-474	CORE	ARTIFICIAL INTELLIGENCE	3
KS_C_CC-475	CORE	ADVANCED NETWORKING	3
KS_C_CC-476	CORE	SOFTWARE PROJECT MANAGEMENT & TESTING	3
KS_C_CC-477	CORE	ENTERPRISE RESOURCE PLANNING	3
KS_C_CC-478	CORE	PROJECT DEVELOPMENT ON KS_C_CC-474	5
		TOTAL CREDITS	25
SUBJECT ELECTIVE COURSE ADVANCED DATABASE SYSTEMS PARALLEL PROCESSING EMBEDDED SYSTEMS		FOUNDATION COURSE CORPORATE COMMUNICATION & BUSINESS ENGLISH ENTERPREUNERSHIP SKILLS	

SEMESTER – VIII

COURSE NO.	COURSE TYPE	Course / Subject	CREDITS
KS_C_SE-481	SUBJECT ELECTIVE	FROM THE LIST BELOW	3
KS_C_FC-482	FOUNDATION	FROM THE LIST BELOW	2
KS_C_CC-483	CORE	QUANTITATIVE TECHNIQUES	3
KS_C_CC-484	CORE	MOBILE COMPUTING	3
KS_C_CC-485	CORE	SOFT COMPUTING	3
KS_C_CC-486	CORE	MANAGEMENT INFORMATION SYSTEM	3
KS_C_CC-487	CORE	DATA WAREHOUSING & DATA MINING	3
KS_C_CC-488	CORE	DISSERTATION	5
		TOTAL CREDITS	25
SUBJECT ELECTIVE COURSE INFORMATION SECURITY CLOUD COMPUTING COMPILER CONSTRUCTION		FOUNDATION COURSE MASS COMMUNICATION YOGA & MEDITATION	

SEMESTER – IX

COURSE NO.	COURSE TYPE	Course / Subject	CREDITS
KS_C_SE-591	SUBJECT ELECTIVE	FROM THE LIST BELOW	3
KS_C_FC-592	FOUNDATION	FROM THE LIST BELOW	2
KS_C_CC-593	CORE	GEOGRAPHICAL INFORMATION SYSTEM	3
KS_C_CC-594	CORE	CRYPTOGRAPHY	3
KS_C_CC-595	CORE	INTERNET APPLICATIONS	3
KS_C_CC-596	CORE	DISTRIBUTED OPERATING SYSTEM	3
KS_C_CC-597	CORE	DATA COMPRESSION	3
KS_C_CC-598	CORE	PRACTICAL	5
		TOTAL CREDITS	25

SUBJECT ELECTIVE COURSE IMAGE PROCESSING NETWORK SECURITY BIOINFORMATICS	FOUNDATION COURSE NETWORK ADMINISTRATION GREEN COMPUTING
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SEMESTER – X

COURSE NO.	COURSE TYPE	Course / Subject	CREDITS
KS_C_SE-5101	CORE	GRAND PROJECT (6 MONTHS)	25