

DAYANANDA SAGAR UNIVERSITY

Shavige Malleshwara Hills, Kumaraswamy Layout,
Bengaluru - 560011, Karnataka.

SCHOOL OF ENGINEERING



SCHEME & SYLLABUS
FOR
MASTER OF TECHNOLOGY (M.Tech) – 2019
COMPUTER SCIENCE & ENGINEERING
SPECIALIZATION
COMPUTER SCIENCE & ENGINEERING
(With Effect from 2019-20)

SEMESTER I

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	$\frac{CR}{AU}$	SCHEME OF TEACHING					SCHEME OF EVALUATION	
					L	T	P	S/P	C	CIA	END EXAM
1	202	19CSE5101	ADVANCED ALGORITHMS	CR	03	01	-	-	04	50	50
2	202	19CSE5102	ADVANCED OPERATING SYSTEM	CR	03	-	-	-	03	50	50
3	202	19CSE5103	ADVANCED DBMS	CR	03	-	-	-	03	50	50
4	202	19CSEXXXX	DEPARTMENT ELECTIVE - I	CR	03	-	02	-	04	50	50
5	202	19CSEXXXX	DEPARTMENT ELECTIVE - II	CR	03	-	02	-	04	50	50
6	202	19CSE5171	ADVANCED OS LAB	CR	-	-	04	-	02	50	50
7	202	19CSE5172	ADVANCED DBMS LAB	CR	-	-	04	-	02	50	50
GRAND TOTAL = 700					15	01	12	-	22	350	350

SEMESTER II

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	$\frac{CR}{AU}$	SCHEME OF TEACHING					SCHEME OF EVALUATION	
					L	T	P	S/P	C	CIA	END EXAM
1	202	19CSE5201	HIGH PERFORMANCE COMPUTING	CR	03	-	-	-	03	50	50
2	202	19CSE5202	ADVANCED COMPUTER NETWORKS	CR	03	-	-	-	03	50	50
3	202	19CSE5203	FORMAL METHODS IN SOFTWARE ENGINEERING	CR	03	01	-	-	04	50	50
4	202	19CSEXXXX	DEPARTMENT ELECTIVE - III	CR	03	-	02	-	04	50	50
5	202	19CSEXXXX	DEPARTMENT ELECTIVE - IV	CR	03	-	02	-	04	50	50
6	202	19CSE5271	HPC LAB	CR	-	-	04	-	02	50	50
7	202	19CSE5272	COMPUTER NETWORKS LAB	CR	-	-	04	-	02	50	50
GRAND TOTAL = 700					15	01	12	-	22	350	350

CR – CREDIT, AU – AUDIT, L – LECTURE, T – TUTORIAL, P – PRACTICAL, S/P – SEMINAR/PROJECT, C – NO. OF CREDITS,
CIA – CONTINUOUS INTERNAL ASSESSMENT

SEMESTER III

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	$\frac{CR}{AU}$	SCHEME OF TEACHING					SCHEME OF EVALUATION	
					L	T	P	S/P	C	CIA	END EXAM
1	202	19CSE5XXX	DEPARTMENT ELECTIVE – V	CR	03	-	02	-	04	50	50
2	202	19MOE53XX	OPEN ELECTIVE	CR	03	-	-	-	03	50	50
3	202	19CSE5381	DISSERTATION	CR	-	-	06	-	03	50	50
GRAND TOTAL = 300					06	-	08	-	10	150	150

SEMESTER IV

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	$\frac{CR}{AU}$	SCHEME OF TEACHING					SCHEME OF EVALUATION	
					L	T	P	S/P	C	CIA	END EXAM
1	202	19CSE5XXX	DEPARTMENT ELECTIVE – VI	CR	03	-	02	-	04	50	50
2	202	19CSE5481	DISSERTATION	CR	-	-	12	-	06	150	150
GRAND TOTAL = 400					03	-	14	-	10	200	200

CR – CREDIT, AU – AUDIT, L – LECTURE, T – TUTORIAL, P – PRACTICAL, S/P – SEMINAR/PROJECT, C – NO. OF CREDITS,
CIA – CONTINUOUS INTERNAL ASSESSMENT

DEPARTMENTAL ELECTIVES FOR BIG DATA STREAM

I/II/III/IV

SL	COURSE CODES	COURSE TITLE
1	19CSE5031	DISTRIBUTED COMPUTING
2	19CSE5032	LINUX KERNEL PROGRAMMING
3	19CSE5033	MULTI-CORE ARCHITECTURES
4	19CSE5034	DATA SCIENCE
5	19CSE5035	WEB TECHNOLOGIES
6	19CSE5036	IMAGE PROCESSING
7	19CSE5037	INFORMATION RETRIEVAL TECHNIQUES
8	19CSE5038	DATA MINING
9	19CSE5039	MOBILE COMPUTING
10	19CSE5040	STORAGE SYSTEMS
11	19CSE5041	PROBABILITY & STATISTICS FOR ANALYTICS
12	19CSE5042	VIRTUALIZATION & CLOUD COMPUTING
13	19CSE5043	PARALLEL PROGRAMMING
14	19CSE5044	ONLINE COMPUTATION & COMPETITIVE ANALYSIS
15	19CSE5045	DATA ANALYTICS & VISUALIZATION
16	19CSE5046	MODELING & SIMULATION

V/VI

SL	COURSE CODES	COURSE TITLE
1	19CSE5071	MEDICAL IMAGE PROCESSING
2	19CSE5072	AGILE SOFTWARE DEVELOPMENT
3	19CSE5073	BUSINESS INTELLIGENCE TECHNOLOGY
4	19CSE5074	NATURAL LANGUAGE PROCESSING
5	19CSE5075	PRODUCT DEVELOPMENT & MANAGEMENT
6	19CSE5076	SOFTWARE PROJECT MANAGEMENT
7	19CSE5077	MACHINE LEARNING
8	19CSE5078	COMPUTER VISION

DEPARTMENTAL ELECTIVES FOR IOT STREAM

I/II/III/IV

SL	COURSE CODES	COURSE TITLE
1	19CSE5031	DISTRIBUTED COMPUTING
2	19CSE5032	LINUX KERNEL PROGRAMMING
3	19CSE5033	MULTI-CORE ARCHITECTURES
4	19CSE5034	DATA SCIENCE
5	19CSE5035	WEB TECHNOLOGIES
6	19CSE5038	DATA MINING
7	19CSE5039	MOBILE COMPUTING
8	19CSE5042	VIRTUALIZATION & CLOUD COMPUTING
9	19CSE5043	PARALLEL PROGRAMMING
10	19CSE5044	ONLINE COMPUTATION & COMPETITIVE ANALYSIS
11	19CSE5045	DATA ANALYTICS & VISUALIZATION
12	19CSE5046	MODELING & SIMULATION
13	19CSE5047	SOFTWARE APPLICATIONS FOR ENERGY DOMAIN
14	19CSE5048	WEARABLE DEVICE TECHNOLOGIES
15	19CSE5049	INTERNET OF THINGS
16	19CSE5050	WIRELESS SENSOR NETWORKS
17	19CSE5051	REAL TIME SYSTEMS
18	19CSE5052	NETWORK SECURITY

V/VI

SL	COURSE CODES	COURSE TITLE
1	19CSE5072	AGILE SOFTWARE DEVELOPMENT
2	19CSE5075	PRODUCT DEVELOPMENT & MANAGEMENT
3	19CSE5079	SOFTWARE APPLICATIONS FOR SMART VEHICLES
4	19CSE5080	SOFTWARE APPLICATIONS FOR SMART CITIES & BUILDING

OPEN ELECTIVES

SL	COURSE CODE	COURSE TITLE	OFFERING DEPARTMENT
1	19MOE5301	DIGITAL MARKETING	COMPUTER SCIENCE & ENGINEERING
2	19MOE5302	PRODUCT LIFE CYCLE MANAGEMENT	MECHANICAL ENGINEERING
3	19MOE5303	PROJECT MANAGEMENT	ELECTRONICS & COMMUNICATION ENGINEERING