

STUDY & EVALUATION SCHEME
B.TECH: COMPUTER SCIENCE AND ENGINEERING
SPECIALIZATION: DATA SCIENCE AND ARTIFICIAL INTELLIGENCE
I YEAR: I SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	THEORY		PRACTICAL		TOTAL	C
						CIE	ESE	CIE	ESE		
1	UCY1801/ UPH 1801	Chemistry/ Physics	3	1	3	40	60	80	20	200	5.5
2	UMA1003	Mathematics-I	3	1	0	40	60	0	0	100	4
3	UCS1801/ UEE1801	Programming for Problem Solving/Basic Electrical Engineering	3	1	2	40	60	80	20	200	5
4	UME1802/ UME1801	Workshop Practices/ Engineering Graphics and design	1	0	4	0	0	80	20	100	3
5	UEG1801/ UCE1801	English/ Environment Science	2/2	0/0	2/0	40/ 20	60/30	80/0	20/0	200/ 50	3/2
6	UCS1803	Python	3	0	2	40	60	80	20	200	4
TOTAL			15/15	3/3	13/11	200/180	300/270	400/320	100/80	1000/850	24.5/ 23.5

L - Lecture

T - Tutorial

P - Practical

CIE - Continuous Internal Evaluation

ESE-End Semester Exam

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I YEAR: II SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	THEORY		PRACTICAL		TOTAL	C
						CIE	ESE	CIE	ESE		
1	UPH2801/ UCY2801	Physics/ Chemistry	3	1	3	40	60	80	20	200	5.5
2	UMA2003	Mathematics-II	3	1	0	40	60	0	0	100	4
3	UEE2801/U CS2802	Basic Electrical Engineering/Pro gramming for Problem Solving	3	1	2	40	60	80	20	200	5
4	UME2801/ UME2802	Engineering Graphics and design/ Workshop Practices	1	0	4	0	0	80	20	100	3
5	UCE2801/U EG2801	Environment Science/ English	2/2	0/0	2/0	20/ 40	30/ 60	0/80	0/20	50 /200	2/3
6	UCS2806	Java Fundament	3	0	2	40	60	80	20	200	4
TOTAL			15/1 5	3/3	11/13	180/2 00	270/3 00	320/4 00	80/100	850/ 1000	23.5/ 24.5

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II YEAR: III SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
THEORY									
1	UCS3011	Data Structures and Algorithms	3	1	-	40	60	100	4
2	UCS3209	Data Structures and Algorithms Labs	-	-	2	40	60	100	1
3	UCS3012	Software Engineering	3	-	-				3
4	UCS3210	Software Engineering Labs	-	-	2				1
5	UMA3007	Discrete Mathematics	3	1	-				4
6	UEC3001	Digital Electronics	3	-	-				3
7	UEC3201	Digital Electronics Labs	-	-	2	40	60	100	1
8	UEG3005	Effective Technical Communication	3	-		40	60	100	3
9	UCS3804	Data Analytics & Reporting	3	0	0	40	60	200	4
			0	0	2	80	20		
TOTAL			18	2	8	560	440	1000	24

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II YEAR: IV SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
THEORY									
1	UCS4012	Computer Organization and Architecture	3	1	-	40	60	100	4
2	UCS4210	Computer Organization and Architecture Labs	-	-	2	80	20	100	1
3	UCS4013	Operating System	3	1	-	40	60	100	4
4	UCS4211	Operating System Labs	-	-	2	80	20	100	1
5	UCS4014	Formal Language and Automata Theory	3	1	-	40	60	100	4
6	UCS4801	IT Workshop	1	-	2	80	20	100	2
7	UMG4008	Organizational Behavior	3	-	-	40	60	100	3
8	ULA4401	Constitution of India	2	-		Satisfactory/Unsatisfactory			0
9	UCS4602 IV	Industrial Visit-I	-	-	-	Satisfactory/Unsatisfactory			0
10	UCS4807	Predictive Analytics	3	0	2	40	60	100	4
						80	20	100	
TOTAL			18	3	8	520	380	9000	23

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III YEAR: V SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
THEORY									
1	UCS5012	Database Management System	3	1	-	40	60	100	4
2	UCS5208	Database Management System Labs	-	-	2	80	20	100	1
3	UCS5013	Design and Analysis of Algorithms	3	1	-	40	60	100	4
4	UCS5209	Design and Analysis of Algorithms Labs	-	-	2	80	20	100	1
5	UCS5014	Object Oriented Programming	2	1	-	40	60	100	3
6	UCC5210	Object Oriented Programming Labs	-	-	2	80	20	100	1
7	UEC5002	Signal & System	3	-	-	40	60	100	3
8	-	Open Elective-I	3	-	-	40	60	100	3
9	-	Elective-I	3	-	-	40	60	100	3
10	ULA5402	Essence of Indian Traditional Knowledge	2	-	-	Satisfactory/Unsatisfactory			0
11	UAP5403	Industrial Visit-I	-	-	2	Satisfactory/Unsatisfactory			0
12	UCS5805	Data Science	3	0	2	40	60	100	4
						80	20	100	
TOTAL			22	3	10	600	500	1100	27

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III YEAR: VI SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
THEORY									
1	UCS6006	Compiler Design	3	1	-	40	60	100	4
2	UCS6205	Compiler Design Labs	-	-	2	80	20	100	1
3	UCS6007	Computer Networks	3	1	-	40	60	100	4
4	UCS6206	Computer Networks Labs	-	-	2	80	20	100	1
5	UBS6010	Biology	2	-	-	70	30	100	2
6	-	Elective-II	3	-	-	40	60	100	3
7	-	Elective-III	3	-	-	40	60	100	3
8	USS6402	Soft-Skill and Interpersonal Communication	2	-	-	100	-	100	2
9	UCS6702 PJ	Project-I	-	-	4	100	-	100	1
10	UCS6703SM	Seminar	-	-	2	100	-	100	1
11	UAP6403	Aptitude and Reasoning and online Test	-	-	2	Satisfactory/Unsatisfactory			0
12	UCS6805	Artificial Intelligence Analyst	1	0	3	40	60	100	2.5
						80	20	100	
TOTAL			17	2	15	810	390	1200	24.5

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IV YEAR: VII SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
THEORY									
1	-	Elective-IV	3	-	-	40	60	100	3
2	-	Elective-V	3	-	-	40	60	100	3
3	-	Open Elective-II	3	-	-	40	60	100	3
4	UCS7702 PJ	Project-II	-	-	10	100	-	100	5
5	UCS7601 ST	Summer Training	-	-	2	100	-	100	1
6	UCS7802	Deep Learning	1	-	3	40	60	100	2.5
						80	20	100	
TOTAL			10	0	15	440	260	700	17.5

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IV YEAR: VIII SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
THEORY									
1	-	Elective-VI	3	-	-	40	60	100	3
2	-	Open Elective-III	3	-	-	40	60	100	3
3	UCS8702 PJ	Project-III	-	-	12	80	20	100	6
TOTAL			6	0	12	160	140	300	12

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LIST OF ELECTIVES

ELECTIVE-I			
S. N.	SUBJECT CODE	SUBJECT	SEMESTER
1	UCS5107	Ecommerce	V
2	UCS5108	Graph Theory	V
3	UCS5109	Management Information System	V
4	UCS5110	Computer Graphics	V
ELECTIVE-II			
1	UCS6107	MOOC: Operations Research	VI
2	UCS6108	Computer Based Numerical and Statistical Techniques	VI
3	UCS6109	Geographical Information System	VI
4	UCS6110	Artificial Intelligence	VI
ELECTIVE-III			
1	UCS6111	Digital Image Processing	VI
2	UCS6112	Information Security and Cyber Law	VI
3	UCS6113	Cryptography and Network Security	VI
4	UCS6114	MOOC: Cloud Computing	VI
5	UCS6115	Machine Learning	VI
ELECTIVE-IV			
1	UCS7101	Mobile Application Development	VII
2	UCS7102	Parallel Algorithm	VII
3	UCS7103	Microprocessor	VII
4	UCS7104	MOOC: Real Time System	VII
5	UCS7105	Distributed System	VII
ELECTIVE-V			
1	UCS7106	Data Mining and Data Warehousing	VII
2	UCS7107	MOOC: Soft Computing	VII
3	UCS7108	Semantic Web and Web Service	VII
4	UCS7109	Data Compression	VII
5	UCS7110	Mobile Computing	VII
6	UCS7111	Pattern Recognition	VII

ELECTIVE-VI

1	UCS8101	Embedded System	VIII
2	UCS8102	Neural Networks	VIII
3	UCS8103	Simulation and Modeling	VIII
4	UCS8104	MOOC: Big Data Computing	VIII
5	UCS8102	Information storage Management	VIII

LIST OF OPEN ELECTIVES**OPEN ELECTIVE-I**

S. N.	SUBJECT CODE	SUBJECT	Department Offered	SEMESTER
1	UMG5301	Principles of Management	MGMT	V
2	UEM5301	Economics	MGMT	V

OPEN ELECTIVE-II

1	UEC7301	Satellite Communication	EC	VII
2	UME7301	Total Quality Management	ME	VII
3	UCS7301	MOOC: Block chain Arthecture	CS	VII

OPEN ELECTIVE-III

1	UCS8301	Green Computing	CS	VIII
2	UMG8301	Digital Marketing	CS	VIII
3	UME8305	Six Sigma	ME	VIII
4	UEC8301	Mobile Communication and Network	EC	VIII
5	UEE8301	Fuzzy Systems and Its application	EE	VIII