

Integral University
STUDY & EVALUATION SCHEME
B.Tech. (DS & AI) 1st Sem

Sl.No.	Course Category	Subject Code	Name of Subject	Periods				Evaluation Scheme				Subject Total
				L	T	P	C	Sessional (CA)			End Sem Exam (ESE)	
								CT	TA	Total		
1	BS	CH-101	Chemistry	3	1	0	4	25	15	40	60	100
2	ES	ES-101	Environmental Studies	2	1	0	4	25	15	40	60	100
3	BS	MT-112	Mathematics – II	3	1	0	4	25	15	40	60	100
4	ESA	ME-101	Basic Mechanical Engineering	3	1	0	4	25	15	40	60	100
5	DC	CS-101	Computer Programming	3	1	0	4	25	15	40	60	100
6	BS	CH-102	Chem Lab	0	0	2	1	30	30	60	40	100
7	ESA	ME-102	ME Lab	0	0	2	1	30	30	60	40	100
8	DC	CS-102	Computer Prog. Lab	0	0	2	1	30	30	60	40	100
9	DC	CS-125	Digital Workforce Skills	0	0	2	1	30	30	60	40	100
				14	5	8	24	245	195	440	460	900

L – Lecture **T** – Tutorial **P** – Practical **C** – Credits **CT** – Class Test **TA** – Teacher Assessment

Sessional Total (CA) = Class Test + Teacher Assessment

Subject Total = Sessional Total (CA) + End Semester Examination (ESE)

BS – Basic Sciences **DC** – Departmental Core

HM – Humanities **OE** – Open Elective

DE – Departmental Elective **ESA** – Engineering Sciences & Arts (Foundation Course & Engineering Courses)

Integral University
STUDY & EVALUATION SCHEME
B.Tech. (DS & AI) 2nd Sem

Sl.No.	Course Category	Subject Code	Name of Subject	Periods				Evaluation Scheme				Subject Total
				L	T	P	C	Sessional (CA)			End Sem Exam (ESE)	
								CT	TA	Total		
1	BS	CH-101	Chemistry	3	1	0	4	25	15	40	60	100
2	ES	ES-101	Environmental Studies	2	1	0	4	25	15	40	60	100
3	BS	MT-112	Mathematics – II	3	1	0	4	25	15	40	60	100
4	ESA	ME-101	Basic Mechanical Engineering	3	1	0	4	25	15	40	60	100
5	ESA	EC-101	Basic Electronics	3	1	0	4	25	15	40	60	100
6	BS	CH-102	Chem Lab	0	0	2	1	30	30	60	40	100
7	ESA	ME-102	ME Lab	0	0	2	1	30	30	60	40	100
8	ESA	ME-103	Eng Graphics lab	0	0	2	1	30	30	60	40	100
9	DC	CS-126	Changing Business with Data Insight (Watson Analytics)	0	0	2	1	30	30	60	40	100
				14	5	8	24	245	195	440	460	900

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Sessional Total (CA) = Class Test + Teacher Assessment

Subject Total = Sessional Total (CA) + End Semester Examination (ESE)

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Integral University
STUDY & EVALUATION SCHEME
B.Tech. (DS & AI) 3rd Sem

Sl.No.	Course Category	Subject Code	Name of Subject	Periods				Evaluation Scheme				Subject Total
				L	T	P	C	Sessional (CA)			End Sem Exam (ESE)	
								CT	TA	Total		
1	DC	CS-204	Data Structure using C	3	1	0	4	25	15	40	60	100
2	DC	CS-205	Object Oriented Programming & C++	3	1	0	4	25	15	40	60	100
3	DC		Data Analytics Using Python	2	1	0	2	25	15	40	60	100
4	BS	MT-206	Mathematical Analysis	3	1	0	4	25	15	40	60	100
5	ESA	EC-209	Digital Electronics	3	1	0	4	25	15	40	60	100
6	DC	CS-260	Data Science Fundamentals (DE-1)	3	1	0	4	25	15	40	60	100
7	ESA	ES-202	Disaster management	2	1	0	3	25	15	40	60	100
8	DC	CS-208	Data structures Lab	0	0	2	1	30	30	60	40	100
9	DC	CS-210	OOP Lab	0	0	2	1	30	30	60	40	100
10	HM	BM226	Human Values and Professional Ethics	0	0	0	0	-	-	-	50	50
				19	7	4	27	235	165	400	500	900

L – Lecture T – Tutorial P – Practical C – Credits CT – Class Test TA – Teacher Assessment

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Subject Total = Sessional Total (CA) + End Semester Examination (ESE)

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Integral University
STUDY & EVALUATION SCHEME
B.Tech. (DS & AI) 4th Sem

Sl.No.	Course Category	Subject Code	Name of Subject	Periods				Evaluation Scheme				Subject Total
				L	T	P	C	Sessional (CA)			End Sem Exam (ESE)	
								CT	TA	Total		
1	DC	CS-211	Software Engineering	3	1	0	4	25	15	40	60	100
2	DC	CS-261	Cloud Application Development	3	1	0	4	25	15	40	60	100
3	DC	CS-213	Computer Organization	3	1	0	4	25	15	40	60	100
4	ESA	CS-203	Cyber Law & Information Security	2	1	0	3	25	15	40	60	100
5	DE	CS-214/ CS-215	Departmental Elective 2 Advance Computer Programming / Core Java	3	1	0	4	25	15	40	60	100
6	DC	CS-262	Data Base Management	3	1	0	4	25	15	40	60	100
7	DE	CS-218/ CS-219	Departmental Elective 3 Advance Computer Prog Lab / Core Java Lab	0	0	2	1	30	30	60	40	100
8	DC	CS-263	DBM Lab	0	0	2	1	30	30	60	40	100
9	DC	CS-216	CO Lab	0	0	2	1	30	30	60	40	100
10	DC	CS-217	SE Lab	0	0	2	1	30	30	60	40	100
				17	6	8	27	270	210	480	520	1000

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Integral University
STUDY & EVALUATION SCHEME
B.Tech. (DS & AI) 5th Sem

Sl.No.	Course Category	Subject Code	Name of Subject	Periods				Evaluation Scheme				Subject Total
				L	T	P	C	Sessional (CA)			End Sem Exam (ESE)	
								CT	TA	Total		
1	DE	CS391	Hadoop Fundamentals (DE-4)	3	1	0	4	25	15	40	60	100
2	DC	CS-301	Design and Analysis of Algorithm	3	1	0	4	25	15	40	60	100
3	DC	CS-303	Principles of Operating System	3	1	0	4	25	15	40	60	100
4	DC	CS-304	Theory of Automata and formal Languages	3	1	0	4	25	15	40	60	100
5	DE	CS392	Data Scientist (DE-5)	3	1	0	4	25	15	40	60	100
6	DC	CS-305	Computer Networks	3	1	0	4	25	15	40	60	100
7	DC	CS-306	CN Lab	0	0	2	1	30	30	60	40	100
8	DC	CS-302	DAA Lab	0	0	2	1	30	30	60	40	100
9	DC	CS-393	Hadoop fundamentals Lab (DE 6)	0	0	2	1	30	30	60	40	100
				18	6	6	27	240	180	420	480	900

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Sessional Total (CA) = Class Test + Teacher Assessment

Subject Total = Sessional Total (CA) + End Semester Examination (ESE)

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Integral University
STUDY & EVALUATION SCHEME
B.Tech. (DS & AI) 6th Sem

Sl.No.	Course Category	Subject Code	Name of Subject	Periods				Evaluation Scheme			Subject Total	
				L	T	P	C	Sessional (CA)		End Sem Exam (ESE)		
								CT	TA			Total
1	DE	CS-313	Microprocessor and its Application	3	1	0	4	25	15	40	60	100
2	DC	CS-315	Compiler Design	3	1	0	4	25	15	40	60	100
3	DC	CS-394	Artificial Intelligence Analyst	3	1	0	4	25	15	40	60	100
4	DC	CS-332/ CS-333	Departmental Elective - 7 Visual Programming and Techniques / Graph Theory	3	1	0	4	25	15	40	60	100
5	DE	CS-395	Scala Programming for Data Science (DE-8)	3	1	0	4	25	15	40	60	100
6	DC		Open Elective - 1	3	1	0	4	25	15	40	60	100
7	DC	CS-314	Microprocessor Lab	0	0	2	1	30	30	60	40	100
8	DC	CS-316	CD Lab	0	0	2	1	30	30	60	40	100
9	DC	CS-396	AI Analyst Lab	0	0	2	1	30	30	60	40	100
				18	6	6	27	240	180	420	480	900

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Integral University
STUDY & EVALUATION SCHEME
B.Tech. (DS & AI) 7th Sem

Sl.No.	Course Category	Subject Code	Name of Subject	Periods				Evaluation Scheme				Subject Total
				L	T	P	C	Sessional (CA)			End Sem Exam (ESE)	
								CT	TA	Total		
1	DE	CS-485	Blockchain (DE-9)	3	1	0	4	25	15	40	60	100
2	DC	CS-409	Computer Architecture	3	1	0	4	25	15	40	60	100
3	DC	CS-410	Distributed Systems	3	1	0	4	25	15	40	60	100
4	DC	CS-486	Spark Programming for Data Science (DE-10)	3	1	0	4	25	15	40	60	100
5	DC	CS-412	Cryptography and Network Security	3	1	0	4	25	15	40	60	100
6	DE	CS-411	DS Lab	0	0	2	1	30	30	60	40	100
7	DC	CS-413	Crypto Lab	0	0	2	1	30	30	60	40	100
8	DC	CS-421	Minor Project	0	0	2	1	30	30	60	40	100
9	DC	CS-300	Industrial Training	0	0	0	0	0	0	100	0	100
				15	5	4	23	215	165	480	420	900

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Integral University
STUDY & EVALUATION SCHEME
B.Tech. (DS & AI) 8th Sem

Sl.No.	Course Category	Subject Code	Name of Subject	Periods				Evaluation Scheme				Subject Total
				L	T	P	C	Sessional (CA)			End Sem Exam (ESE)	
								CT	TA	Total		
1	DC	CS-451	Seminar	0	0	0	3	0	100	100	0	100
2	DC	CS-499	B.Tech Project	0	0	0	12	0	180	180	120	300
3	DC	CS-422	Comprehensive Viva	0	0	0	2	0	100	100	0	100
4	OE		Open Elective 2	3	1	0	4	25	15	40	60	100
				3	1	0	21	25	395	420	180	600

L – Lecture T – Tutorial P – Practical C – Credits CT – Class Test TA – Teacher Assessment

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Sem	Credits	marks
1st Sem	24	900
2nd Sem	24	900
3rd Sem	27	900
4th Sem	27	1000
5th Sem	27	900
6th Sem	27	900
7th Sem	23	900
8th Sem	21	600
Total credits	200	7000