Parent	Sub	Course Code	Level	Course Title	Abb	L	T	P	S	I	C	CH	PRE-REQ	S/NS	MOOCS	EVAL
R24 Course Structure - B.Tech CSE AIML Program																
Semester - 1																
FC	BSC	24PHY101	100	Engineering Physics	EPY											
FC	BSC	24CHE201	100	Environmental Chemistry & Engineering Biology*	ECB	3	0	0	0	0	3	3				
FC	ESC	24CSE102	100	Problem Solving an	PCP	3	0	0	0	0	3	3				
FC	BSC	24MAT103	100	Calculus	CAL	2	1	0	0	0	3	3				
UC	AEC	24ENG104	100	English for Skill Enl	ESE	2	0	0	0	0	2	2				
FC	ESC	24EEE105	200	Elements of Electr	EEE	3	0	0	0	0	3	3				
UC	AEC	24ENGL106	100	Oral Communicatic	CS1	0	0	2	0	0	1	2				
FC	BSC	24PHYL107	100	Engineering Physics Lab[Eng Physics Comb]	EPL											
PC	SDD	24CSEL109	100	Fundamentals of V	WEB	0	0	4	0	0	2	4				
FC	ESC	24CSEL108	100	Problem Solving and	PCL	0	0	4	0	0	2	4				
FC	ESC	24CSEL207	100	IT Workshop	ITW	0	0	2	0	0	1	2				
UC	AUC	24MC110	100	Induction Program	IDP	1	0	0	0	0	0	1				
Total for Sem -1						14	1	12	0	0	20	27				
Semester - 2																
FC	BSC	24PHY101	100	Engineering Physics	EPY											ET
FC	BSC	24CHE201	100	Environmental Chemistry & Engineering Biology*	ECB	3	0	0	0	0	3	3				ET
FC	BSC	24MAT202	100	Discrete Mathema	DMS	3	1	0	0	0	4	4				ET
FC	ESC	24CSE203	100	Computer Organiz	COA	3	0	0	0	0	3	3				ET
FC	ESC	24CSEJ204	100	Data Structures th	DCP	2	0	4	0	0	4	6	PCP			ETP2
UC	ESC	24CSEL205	100	Programming thro	PPY	0	0	4	2	0	3	6				EPS
UC	AEC	24ENGL206	100	Oral Communicatic	CS2	0	0	2	2	0	2	4				EPS
FC	BSC	24PHYL107	100	Engineering Physics Lab[Engg Physics Comb]	EPL											EP
PC	SDD	24CSEL109	100	Fundamentals of V	WEB	0	0	4	0	0	2	4				EPP
UC	HAS	24HASL207	100	Sustainability thro	SDT	0	0	0	2	0	1	2				
Total for Sem -2						11	1	14	6	0	22	32				
FC	RPI	24AMLI222	100	Social Internship	SIP	0	0	0	0	3	1	0				
Semester - 3																
FC	BSC	24MAT301	200	Linear Algebra	LAG	3	1	0	0	0	4	4				
PC	SDD	24CSEJ302	200	Automata and Con	ACD	3	0	2	0	0	4	5				
PC	SDD	24CSEJ303	200	Object Oriented Pr	OOP	2	0	4	0	0	4	6				
PC	SDD	24CSEJ304	200	Operating Systems	OPS	3	0	2	0	0	4	5				
PC	SDD	24CSEJ305	200	Design and Analys	DAA	3	0	2	0	0	4	5	DCP			
UC	SEC	24SEC306	100	Soft Skills 1 -Reaso	SS1	0	0	0	2	0	1	2				
UC	SEC	24SEC307	200	Competitive Progr	COP	0	0	0	2	0	1	2				
FC	AUC	24MC30X	100	Sports Bucket/Health and Wellness Bu		0	0	0	2	0	0	2		ü		
UC	HAS	24HASL308	100	Customer Discove	CUD	0	0	0	2	0	1	2	SDT			
Total for Sem -3						14	1	10	8	0	23	33				
Semester - 4																
FC	BSC	24MAT401	200	Probability and Sta	PST	3	1	0	0	0	4	4				
PC	SDD	24AMLJ402	200	Artificial Intelligen	AIL	3	0	2	0	0	4	5				
PC	SDD	24AMLJ403	200	Machine Learning	MLN	3	0	2	0	0	4	5	LAG			

Cat	Sub	Course Code	Level	Course	Abbr	L	T	P	S	R	Credits	Hours	Pre-req	ü	ü
PC	SDD	24CSEJ404	200	Database Manage	DBS	3	0	2	0	0	4	5			
PC	SDC	24CSES405	200	Full Stack Applicati	FSD	0	0	2	2	0	2	4			
UC	SEC	24SEC406	100	Soft Skills 2 -Verba	SS2	0	0	0	2	0	1	2			
UC	AUC	24MC40X	100	Professional Societies /Community Se		0	0	0	2	0	0	2		ü	
UC	HAS	24HASL408	200	Business Model In	BMI	0	0	0	2	0	1	2	CUD		
Total for Sem -4						12	1	8	8	0	20	29			
FC	RPI	24AMLI444	200	Technical Writing	TIP	0	0	0	0	3	1	0			
Semester - 5															
PC	SDD	24CSEJ501	300	Computer Networ	CNW	3	0	2	0	0	4	5			
PC	SDD	24AMLJ502	300	Computer Vision through Open CV	CVO	3	0	2	0	0	4	5	PCP		
PC	SDD	24AMLJ503	300	Natural Language Processing	NLP	3	0	2	0	0	4	5	LAG/PST		
PE	PE 1	Refer PEs		Program Elective 1*		3	0	0	2	0	4	5			
OE	OE 1	Refer OEs	100	Open Elective 1#		3	0	0	0	0	3	3			
UC	SEC	24SEC5X6	200	Soft Skills 3 Bucket			0	0	2	0	1	2			
UC	SEC	24SEC507	200	Code Challenge Ad	CAP	0	0	0	2	0	1	2			
UC	HAS	24HASL50X	200	Foreign Languages Bucket		0	0	2	0	0	1	2			
UC	HAS	24HASL508	300	Investor Readiness	IRV	0	0	0	2	0	1	2	BMI		
Total for Sem -5						15	0	8	8	0	23	31			
Semester - 6															
PC	SDD	24CSEJ601	200	Software Engineer	SEG	3	0	2	0	0	4	5			
PC	SDD	24AMLJ602	400	Neural Networks and Deep Learning	NDL	3	0	2	0	0	4	5	MLN/LAG		
PE	PE 2	Refer PEs		Program Elective 2*		3	0	0	2	0	4	5			
PE	PE 3	Refer PEs		Program Elective 3*		3	0	0	2	0	4	5			
UC	AEC	24ENGL605	200	Communication Skills - III	CS3	0	0	2	2	0	2	4			
PC	SDC	24AMLS606	300	Cloud and Devops	CDE	0	0	2	2	0	2	4	FSD		ü
UC	AUC	24MC607	100	Indian Constitution	INC	2	0	0	0	0	0	2		ü	
UC	HAS	24HASL608	300	Product Launch an	PLM	0	0	0	2	0	1	2	IRV		
Total for Sem -6						14	0	8	10	0	21	32			
FC	RPI	24AMLI666	200	Summer Internship	SUP	0	0	0	0	4	2	0			
Semester - 7															
PC	SDD	24AMLJ701	400	Generative AI	GAI	3	0	2	0	0	4	5	NDL		
PE	PE 4	Refer PEs		Program Elective 4*		3	0	0	2	0	4	5			
OE	OE 2	Refer OEs	100	Open Elective 2#		3	0	0	0	0	3	3			
PC	SDC	24AMLS703	300	Cloud based AI/M	CAM	0	0	2	2	0	2	4	CDE		ü
UC	HAS	24MC704	100	Universal Human V	UHV	2	0	0	0	0	0	2		ü	
UC	HAS	24HASL705	300	Post-Launch Grow	PVM	0	0	0	2	0	1	2	PLM		
FC	RPI	24AMLI777	300	Capstone Project -	IN1	0	0	0	0	5	5	5			
Total for Sem -7						11	0	4	6	5	19	26			
Semester - 8															
OE	OE 3	Refer OEs	100	Open Elective 3#		3	0	0	0	0	3	3			
UC	AUC	24MC802	100	Environmental Stu	EVS	2	0	0	0	0	0	2		ü	
FC	RPI	24AMLI888	400	Capstone Project -	IN2	0	0	0	0	10	10	10			
Total for Sem -8						5	0	0	0	10	13	15			
Total Credits and Contact Hours for B.Tech CSE AIML Program						96	4	64	46	25	165	225			

CREDITS DISTRIBUTION and SU vs AICTE vs UGC

Category	Abbr	Sub Category	Abbr	Credits	Courses	Total	Cat vs Credits %			SU vs AICTE vs UGC			
		Ability Enhancemen	AEC	7	4		**Cat**	**Credits**	**%**	**Cat**	**SU**	**AICTE**	**UGC**
		Skill Enhancement	SEC	5	5		UC	19	12	HAS	19	10	8

University Core	UC	Audit Courses	AUC	0	5			FC	61	38	BSC	23	16	SEC	9
		Humanities and So	HAS	7	8	19		PC	56	35	ESC	19	8	HAS	9
Faculty Core	FC	Basic Sciences	BSC	23	7			PE	16	10	PC	56	71		
		Engineering Scienc	ESC	19	7			OE	9	6	PE	16	16	BSC+ESC+PC+PE (Major +Minor)	112
		Research, Project a	RPI	19	5	61					OE	9	6		
Program Core	PC	Standard Courses	SDD	50	15						RPI	19	38	RPI	16
		Skill Development	SDC	6	3	56					AUC	-	-	AUC+OE	6
Program Electives	PE	BIO/DSC/BKC/CYS/	PE 1	4	1							161	165		160
		BIO/DSC/BKC/CYS/	PE 2	4	1										
		BIO/DSC/BKC/CYS/	PE 3	4	1							HAS = AEC + SEC +HAS			
		BIO/DSC/BKC/CYS/	PE 4	4	1	16									
Open Electives	OE	BT/CE/MECH/EE/I	OE 1	3	1										
		BT/CE/MECH/EE/I	OE 2	3	1		AICTE	https://www.aicte-india.org/sites/default/files/Model_Curriculum/Updated-AICTE%20-%20UG%20CSE.pdf							
		BT/CE/MECH/EE/I	OE 3	3	1	9									
Total Credits for B.Tech CSE AIML				66	161		UGC	https://www.ugc.gov.in/e-book/FYUGP/mobile/index.html							

1.**University Core**: Fundamental courses mandated by the university to provide a broad and essential foundation across disciplines.
2.**Faculty Core**: Core courses specific to a faculty, aimed at building foundational knowledge in the respective academic domain.
3.**Program Core**: Mandatory courses tailored to a specific program, focusing on essential knowledge and skills within the field of study.
4.**Professional Electives**: Specialized elective courses offering advanced knowledge and skills related to the professional domain.
5.**Open Electives**: Flexible elective courses chosen by students from a wide range of disciplines to explore diverse interests.
6.**Ability Enhancement Courses**: Courses designed to improve essential communication, reasoning, and analytical skills, enhancing overall academic and professional competency.
7.**Skill Enhancement Courses**: Practical-focused courses aimed at building technical, vocational, and soft skills relevant to employability and career growth.
8.**Audit Courses**: Mamdatory non-credit courses undertaken voluntarily for knowledge enhancement without impacting grades or GPA.
9.**Liberal Arts**: Courses in humanities, social sciences, and creative arts, promoting critical thinking, design thinking, innovation and holistic education.
10.**Basic Sciences**: Foundational science courses that provide the basic principles and theories essential for advanced learning.
11.**Engineering Sciences**: Core engineering courses covering fundamental concepts and applications across various technical disciplines.
12.**Research, Project and Internship**: Academic initiatives combining research, project work, and internships to foster practical problem-solving skills.
13.**Skill Development**: Industry-aligned courses that enhance professional, technical, and employability skills in students.

Note:	PE*	*May opt from any one/multiple segment(s)/general PEs from the offered list of courses by the Dept/School*
	OE#	*May opt from any one/multiple categories Oes from the offered list of courses by the Dept/School*

ABB.	PRE-REQ	Pre-Requisite
	S/NS	Satisfactory/Not Satisfactory
	MOOCS	Courses/Global Certifications approved by BoS
	EVAL	Evaluation Pattern for Courses