

**School of Engineering and Applied Science,
Ahmedabad University**

Programme: B. Tech. (ICT) and Dual Degree - MTech (ICT)

Semester	Name of the courses	Credits	Core/ Elective
First			
1	Calculus and Differential Equations	4	Core
2	Electronic System Design	3	Core
3	Communication Skills	3	Core
4	User Centered Design	4.5	Core
5	Introduction to Computer Programming	3	Core
6	Introduction to Computer Programming Lab	1.5	Core
	Semester Total Credits:	19	
Second			
1	Digital Design	3	Core
2	Digital Design Lab	1.5	Core
3	Object Oriented Programming	3	Core
4	Object Oriented Programming Lab	1.5	Core
5	Environmental Studies	3	Core
6	Electromagnetic Theory	4	Core
7	Discrete Mathematics	4	Core
	Semester Total Credits:	20	
Third			
1	Data Structures and Algorithms	3	Core
2	Data Structures and Algorithms Lab	1.5	Core
3	Ethics	3	Core
4	Linear Algebra	4	Core
5	Computer Organisation	3	Core
6	Computer Organisation Lab	1.5	Core
7	Signals and Systems	4	Core
	Semester Total Credits:	20	
Fourth			
1	Analog and Digital Communications	3	Core
2	Analog and Digital Communications Lab	1.5	Core
3	Database Management Systems	3	Core
4	Database Management Systems Lab	1.5	Core
5	Embedded System Design	3	Core
6	Embedded System Design Lab	1.5	Core
7	Probability and Random Processes	4	Core
8	Economics	3	Core
	Semester Total Credits:	20.5	
Fifth			

1	Computer Networks	3	Core
2	Computer Networks Lab	1.5	Core
3	Operating Systems	3	Core
4	Operating Systems Lab	1.5	Core
5	Wireless Communications	3	Core
6	Wireless Communications Lab	1.5	Core
7	Elective - I	3	Elective
	Note: BTech student should enroll in any one of the electives and dual degree (iMTech) student should enroll in any of the two elective courses		
8	HASS Elective - I	3	HASS Elective
	Note: Student should enroll in any one of the AU Level HASS Elective courses		
	The student opting for Dual Degree : 1. Should have completed one additional elective in each of semester V, VI and VII; and 2. should submit written application latest by the end of semester VII to the office of Dean, SEAS and get required approval.		
	Semester Total Credits:	19.5	
	Dual Degree Semester Total Credits:	22.5	
Sixth			
1	Digital Signal Processing	3	Core
2	Digital Signal Processing Lab	1.5	Core
3	Software Engineering	3	Core
4	Elective - II	3	Elective
5	Elective - III	3	Elective
	Note: BTech student: should register in any two of elective courses iMTech student: Will take any three elective courses		
6	HASS Elective - II	3	HASS Elective
	Note: Any one of following courses can be selected as HASS Elective courses		
	Semester Total Credits:	16.5	
	Dual Degree Semester Total Credits:	19.5	
Seventh			
1	Elective - IV	3	Elective
2	Elective - V	3	Elective
3	Elective - VI	3	Elective
4	Elective - VII	3	Elective

	Note: BTech: Any of four courses can be selected as Elective courses iMTech: Any of five courses should be selected as Elective courses		
5	HASS Elective - III	3	HASS Elective
	Note: Any one of the courses can be selected as HASS Elective courses		
	B.Tech Project Part - 1 (BTP - 1) * Students doing on campus BTech project can only register for BTP - 1. The student may drop one of the electives, but has to complete it in semester VIII	3	BTech Project
	The student opting for Dual Degree : 1. Should have completed one additional elective in each of semester V, VI and VII; and 2. should submit written application latest by the end of semester VII to the office of Dean, SEAS and get required approval.		
	Semester Total Credits (Min 15 / Max 18 (with BTP-1)):		
	Dual Degree Semester Total Credits: (With courses only)	18.5	
Eight			
1	B.Tech Project Part - 1 (BTP - 1) If student has not completed BTP - 1 in semester VII can register	3	BTech Project
2	B.Tech Project Part - 2 (BTP - 2)	12	BTech Project
3	Technical Electives * BTech: Any student doing on campus who could not register for one of the elective courses in Semester VII can register for an Elective course iMTech: should register for Five courses	3	Elective
4	HASS Elective * Note: iMTech: Any one of the courses can be selected as HASS Elective courses	3	HASS Elective
	The student who registered for four electives, one HASS elective and BTP - 1 in seventh semester will register for only BTP - 2 in semester VIII	3	

	Semester Total Credits (15 / 12 (completed BTP-1)):		
	Dual Degree Semester Total Credits: (With courses only)	18	
Ninth	Dual degree BTech and MTech program (iMTech)		
1	Technical Elective*	3	Elective
	iMTech: student who could not complete one of the electives in semester VII or VIII can register for one elective course.		
2	iMTech Thesis - 1	18	Thesis
	Semester Total Credits (18 / 21*):	18	
Tenth	Dual degree BTech and MTech program		
1	Technical Elective*	3	Elective
	iMTech: student who could not complete one of the electives in semester VII, VIII or IX can register for one elective course.		
2	iMTech Thesis - 2	18	Thesis
	Semester Total Credits (18 / 21*):	18	