

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

Programme: B. Tech. (Chemical Engineering)

Semester	Name of the courses	Credits	Core/ Elective
First			
1	Applied Physics	3	Core
2	Engineering Graphics	3	Core
3	Engineering Graphics Lab	1.5	Core
4	Environmental Studies	3	Core
5	Calculus and Differential Equations	4	Core
6	Inorganic Chemistry	3	Core
7	Inorganic Chemistry Lab	1.5	Core
8	Communication Skills	3	Core
	Semester Total Credits:	22	
Second			
1	Introduction to Computation and Programming	4	Core
2	Introduction to Computation and Programming Lab	1.5	Core
3	Linear Algebra	4	Core
4	User Centered Design	4.5	Core
5	Physical Chemistry	3	Core
6	Physical Chemistry lab	1.5	Core
	Semester Total Credits:	18.5	
Third			
1	Economics	3	Core
2	Vector and Complex Analysis	4	Core
3	Thermodynamics – I	3	Core
4	Power Plants and Mechanical Operations	4	Core
5	Stoichiometry and Process Calculations	3	Core
6	Organic Chemistry	3	Core
7	Organic Chemistry Lab	1.5	Core
	Semester Total Credits:	21.5	
Fourth			
1	Fluid Mechanics	3	Core
2	Fluid Mechanics Lab	1.5	Core
3	Chemical Process Technology	3	Core
4	Heat Transfer	4	Core
5	Mass Transfer Operations - I	3	Core
6	Chemical Engineering Lab - I	1.5	Core
7	Thermodynamics – II	3	Core
8	Ethics	3	Core

	Semester Total Credits:	22	
Fifth			
1	Heat Transfer Lab	1.5	Core
2	Mass Transfer Operations - II	3	Core
3	Chemical Engineering Lab - II	1.5	Core
4	Chemical Reaction Engineering	3	Core
5	Elective - I	3	Elective
6	Introduction to Materials Science and Engineering	3	Core
7	HASS Elective - I	3	HASS Elective
	Semester Total Credits:	18	
Sixth			
1	Instrumentation and Process Control	3	Core
2	Process Equipment and Design	3	Core
3	Chemical Engineering Lab - III	1.5	Core
4	Elective - II	3	Elective
5	Elective - III	3	Elective
6	HASS Elective - II	3	HASS Elective
	Semester Total Credits:	16.5	
Seventh			
1	Process Design and Economics	3	Core
2	Process Simulation	3	Core
3	Elective - IV	3	Elective
4	Elective - V	3	Elective
	Note: BTech: Any of two courses can be selected as Elective courses		
	Process Synthesis and Integration	3	Elective
	Optimization Methods	3	Elective
	Polymer Science and Engineering	3	Elective
	Catalysis and Catalytic Processes	3	Elective
	Industrial Pollution Control	3	Elective
	Biochemical Engineering	3	Elective
5	HASS Elective - II	3	
	Note: Any one of AU level courses can be selected as HASS Elective courses		
	BTech Project Part -1 (BTP - 1)	3	
Eighth			
	B.Tech Project Part - 1 (BTP - 1)	3	
	B.Tech Project Part - 2 (BTP - 2)	12	

	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	3	Elective
--	--	---	----------