

PROFESSOR'S NAME	Prof. Suman Kalyan Samanta		
DEPARTMENT	Chemistry		
INSTITUTE	IIT Kharagpur		
COURSE OUTLINE	<p>Understanding the underlying factors for the comparison of the strengths of organic acids and bases. Studying in-depth mechanism of various electrophilic and nucleophilic substitution reactions on aromatic systems as well as C=C bonds. Various synthetic routes for heteroaromatic compounds. Mechanistic study of various elimination reactions and their comparison will be discussed. Elimination vs. substitution reactions will be described with the help of many examples. Problem solving: Each category will be discussed with several examples.</p>		
COURSE DETAILS			
S. No	Module ID/ Lecture ID	Lecture Title/Topic	Duration
1	S12-Mod1	Strengths of organic acids and bases	0:35:05
2	S12-Mod2	Strength of bases, Electrophilic substitutions	1:08:00
3	S12-Mod3	Halogenation, Sulfonation, F-C Alkylation, Acylation	0:48:28
4	S12-Mod4	Electrophilic attach on Ph-Y, Electronic effect of Y, Kin vs. thermo, Ipso	1:02:00
5	S12-Mod5	Electrophilic Substitution of Phenols, amines, naphthalenes	0:53:36
6	S12-Mod6A	Aromatic Nucleophilic Substitution, Aryne Intermediate	0:49:04
7	S12-Mod6B	Synthesis of Heterocyclic compounds	0:25:29
8	S12-Mod7	Electrophilic addition to C=C via halonium & carbocation intermediate	1:01:08
9	S12-Mod8	Hydration, Hydroboration, Conjugated diene, Hydroxylation, Ozonolysis	1:10:22

10	S12-Mod9A	Elimination Reactions	0:50:13
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11	S12-Mod9B	Elimination Reactions (countd..)	0:32:25
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References if Any: