### Rate processes - Video course

### COURSE OUTLINE

- Rate Laws and Effect of Temperature on Reaction Rates
- Theories of Reaction Rates
- Fast Reactions;
- Reactions in Solutions
- Ultrafast processes Reaction Dynamics

### COURSE DETAIL

SI No.	Topic/s	Hours
1	Reaction Rates and Rate Laws	2
2	Effect of Temperature on Reaction Rate	2
3	Complex Reactions	3
4	Theories of Reaction Rates	4
5	Kinetics of Some specific Reactions	5
6	Kinetics of Catalyzed Reactions	4
7	Fast Reactions	4
8	Reactions in Solutions	4
9	Ultrafast processes	4
10	Reaction Dynamics	8

#### **References:**

- 1. Chemical Kinetics and Reaction Dynamics by Paul L. Houston
- 2. Chemical Kinetics and Dynamics by Jeffrey I. Steinfeld, Joseph S. Francisco, William L. Hase
- 3. Principles of Chemical Kinetics by James E. House
- 4. Molecular Reaction Dynamics by Raphael D. Levine



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## Chemistry and Biochemistry

### **Pre-requisites:**

Introductory Physical Chemistry

### **Coordinators:**

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