ORGANIC CHEMISTRY (BS-ADP 8th Semester)

Module Code:	**Chem-463**
Module title:	**Reaction Mechanism-IV**
Name of Scheme:	**BS-ADP 8th Semester**
Department:	**School of Chemistry**
Faculty:	**Science**
Module Type:	**Compulsory**
Module Rating:	**2 Credits**

OBJECTIVES:

To grasp ideas about the mechanisms, basic rules and principles working behind different types of pericyclic reactions. Introduction, method of generation, reactions and applications of reactive intermediates.

SYLLABUS OUTLINES:

1. Reactive Intermediates

Carbenes, nitrenes, and benzynes, structure and evidence for formation, general reactions and synthetic applications.

2. Pericyclic reactions

Introduction, Wood-ward-Hoffmann rules and molecular orbital theory; cycloaddition, electrocyclic and sigmatropic rearrangement and group transfer reactions.

RECOMMENDED BOOKS:

1. Organic Chemistry, Vol. I (6th Ed.) and II (5th Ed.) by I.L. Finar, Pearson Education (Singapore) Pvt. Ltd. 2008.
2. March's Advance Organic Chemistry: Reactions, Mechanisms and Structures. (6th Ed.) by M.B. Smith and J. March, Wiley, 2007.
3. A Text-Book of Organic Chemistry by M. Younas, ILMI, Pakistan.
4. Organic Chemistry, (5th Ed.) by S.H. Pine, McGraw Hill, New York, USA, 1987.
5. Organic Chemistry, (6th Ed.) by Francis A. Carey, McGraw Hill, USA, 2005.
6. Organic Chemistry, (6th Ed.) by R.T. Morrison, R.N. Boyd and R.K. Boyd, Benjamin Cummings, 1992.
7. Electrocyclic Reactions, by F.L. Ansari, R. Qureshi, M.L. Qureshi, Wiley-VCH, 1999.
8. Reactive Intermediates in Organic Chemistry, by N.S. Isaac, John Wiley and Sons, 1974.
9. Organic Chemistry, by Jonathan Clayden, Nick Greeves and Stuart Warren, Oxford University Press, 2000.