

PHYSICAL CHEMISTRY (BS-ADP 8thSemester)

Module Code:	Chem-449
Module title:	Nuclear Chemistry
Name of Scheme:	BS-ADP 8thSemester
Department:	School of Chemistry
Faculty:	Science
Module Type:	Compulsory
Module Rating:	2 credits

OBJECTIVES

The course is designed to strengthen fundamental knowledge of students for understanding of processes based on nuclear chemistry.

SYLLABUS OUTLINES

Composition of the nucleus, natural and artificial radioactivity, rate of radioactive disintegration, radioactive equilibrium, transformation of elements cyclotron and linear accelerators; nuclear processes; nuclear fission, atomic bomb, nuclear reactor, nuclear fusion, hydrogen bomb, steller energy, radiation hazards, use of tracers in chemistry.

RECOMMENDED BOOKS

1. Physical Chemistry by Kundu, N and Jain, S.K.S. Chand and Company Ltd. 1984.
2. Physical chemistry by Atkins, P.W. 5th Ed., W.H.Freeman and Company, New York, 1994.
3. Physical Chemistry by Alberty, R.A. and Silbey. R.J., John Wiley, New York, 1995.
4. Physical chemistry by Engel, T. and Ried, P., 1st Ed., Pearson Education, Inc. 2006.
5. Bhatti, H. N. and Farooqi, Z. H., Modern Physical Chemistry, Revised ed., Caravan Book House, (2014).