

Lesson Plan
 Name of the Assistant/ Associate Professor: MR. JASVINDER
 Class and Section: B.Sc. III year
 Subject: Physics (Nuclear Physics.)

Week	Date	Topics
January 2020	1 05-10	Nuclear mass and binding energy, Systematics nuclear binding energy nuclear stability
		Nuclear size, spin parity statistics
	12-17	magnetic dipole moment quadrupole moment. Determination of mass by
	19-24	Bain-Bridge and Jordan mass spectrograph. Determination of charge
February 2020	2 27-31	by Mosely law Determination of size of nuclei by Rutherford Back
	02-07	Interaction of heavy charged particle alpha disintegration and its theory
	09-14	Energy loss of heavy charged particles, energetics of alpha-decay Range
	3 16-21	and straggling of alpha particle. Introduction of light charged particle.
March	23-28	Origin of continuous beta spectrum types of beta decay and energetics
	02-07	of beta decay, Energy loss of beta particles, Range of electrons,
	09-14	absorption of beta particles.
	4 16-21	Interaction of gamma ray Nature of gamma rays Energetics of gamma
	23-28	rays passage of gamma radiation through matter electron positron
	30-31	annihilation. Absorption of gamma rays and its applications.
April	5 01-04	Nuclear reactions, Elastic scattering
		Inelastic scattering, Nuclear disintegration photoneuclear reaction. Radiative

(Bali)

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Week	Date	Topics
1	06 - 11	Capture, Direct reaction, heavy ion reactions and spallation
	13 - 18	Reactions conservation laws. Q-value and reaction threshold
	20 - 25	Nuclear Reactors General aspects of Reactor design, nuclear fission and fusion reactors
2	27 - 30	Linear accelerators Tandem accelerators, Cyclotron Betatron
	01 - 06	Ionization chamber proportional counter, G.M. Counter detailed study, scintillation counter and semiconductor detector.
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