

LS637-RESEARCH METHODOLOGY-THEORY[2 CREDITS]

SNo.	Topic	Faculty	Contact hours
1.	Research methodology: Strategies, Planning and Analysis	AKM	2
2.	Biochemical calculations: quantitative methods	SLP	2
3.	Basic physicochemical principles in the context of Biology	SSK	2
4.	Bioinformatics	NR	4
5.	Basics of Biostatistics and statistical methods	SKJ	4
6.	Computational biology	NR	2
7.	Fundamental Methods in Molecular Biology	PCR	2
8.	Methods in Genetic Manipulation	RM	2
9.	Fundamental Methods in Cell culture techniques	NM	1
10.	Gene delivery methods	VY	2
11.	Fundamentals of Systems Biology	ACM	1
12.	Basic principles of protein structure determination: modeling, docking etc.	SGN	2
13.	Basic principles of microscopy: theory and application	SS	2
14.	Basics Principles of FACS: theory and applications	NP	1
15.	Research methodologies in cancer biology	RPS	2
16.	Good laboratory practices: Handling of biohazardous substances, disposal of biohazardous waste; Biosafety issues: - Chemical, radiation, recombinant DNA, biological material	AB	1
17.	Regulatory bodies in research: Institutional Ethics Committee, Institutional Biosafety Committee, Animal Ethics Committee, Review Committee on Genetic Manipulation, Genetic Engineering Approval Committee	SKJ	1

(Total contact hours = 32)

Teaching Faculty:-

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