

LS 535A Metabolic systems & Cellular regulation		2 Credits
Name of the Faculty: Dr. Sneh Lata Panwar*; Dr. Vikas Yadav		
Sr.No.	Topic	Faculty Name/ Contact Hours
1	Interplay of cellular compartments in regulating metabolic pathways	SLP/4
2	Metabolism of proliferative cells: Cancer metabolism	VY/4
3	Hormonal signalling and metabolism, hormone detection assays, Defective hormonal signalling in metabolic disorders	SLP/4
4	Tissue- specific metabolism	VY/5
5	Body Mass Index (BMI) and lipostat theory, leptins and food intake, obesity, hypothalamic regulation of food intake and energy expenditure, orexigenic and anorexigenic neurons, adiponectin and AMPK signalling in muscle and fat	VY/3
6	Hormone-mediated signal metabolism: Regulation of calcium homeostasis and muscle physiology, role of phosphoinositide pathway	SLP/5
7	Metabolic intermediates as signalling molecules	VY/3
8	Nuclear receptors in genetic and epigenetic regulation of metabolism and metabolic diseases	SLP/3 VY/3
9	Constituents of gut metabolism and its relevance in human biology	SLP/4
10	Advanced approaches for targeting metabolic pathways in various infectious and non-infectious diseases	SLP/2
11	Methods to analyze metabolic pathways	SLP/3

Suggested readings:

1. Lehninger Principles of Biochemistry; David L Nelson, Micheal M Cox
2. Biochemistry Voet & Voet
3. Biochemistry by Lubert Stryer
4. Fundamentals of Biochemistry by Charlotte Pratt
5. Textbook of Biochemistry by Edward S West & Wilbert R Todd