

Schedule for 2310332

BIOMOLECULES & INFORMATION PATHWAYS (3 credits)

First semester (2020)

Time: MO 9.00 - 11.00 Room: 521

TH 9.00 - 10.00 Room: 521

Co-ordinator: Anchalee

Topic	Hrs.	Date	Instructor
1. Weak forces	2	10-Aug-20	Thanyada
2. Carbohydrates	3	13, 17 Aug	Suchart
2.1 Monosaccharides and disaccharides 2.2 Polysaccharides 2.3 Glycoconjugates 2.4 Carbohydrate as Information molecules: The sugar code			
3. Lipid	3	20, 24 Aug	Suchart
3.1 Storage lipids 3.2 Structural lipids in membranes 3.3 Lipids as signals, cofactors and pigments 3.4 Working with lipids			
4. The structure of protein	3	27, 31 Aug	Suchart
4.1 Primary structure 4.2 Secondary structure 4.3 Tertiary and quaternary structure 4.4 Protein denaturation and folding			
5. Protein function	3	3, 7 Sep	Suchart
5.1 Reversible binding of a protein to a ligand 5.2 Complementary interactions between proteins and ligands 5.3 Protein interactions modulated by chemical energy			
6. Enzymes			
6.1 The basics of enzymes	0.5	10 Sep (0.5h)	Pawinee
6.2 How enzymes work	0.5	10 Sep (0.5h)	Pawinee
6.3 Enzyme kinetics as an approach to understanding mechanism	2	14-Sep	Pawinee
3.4 Examples of enzyme mechanisms	1	17-Sep	Pawinee
6.5 Regulatory enzymes	2	21-Sep	Pawinee
6.6 Enzyme applications	1	24-Sep	Pawinee
Mid-term examination:			
7. Nucleic acids and information pathways			

7.1	Nucleic acids	2	12-Oct	Anchalee
7.2	Gene and chromosomes	2	15, 19 Oct (1 h)	Anchalee
7.3	DNA metabolism (replication)	2	19 (1 h), 22 Oct	Anchalee
7.4	RNA metabolism (transcription)	2	26-Oct	Anchalee
7.5	Protein metabolism (translation)	2	29 Oct, 2 Nov (1 h)	Anchalee
7.6	Regulation of gene expression	4	2 (1h), 5, 9 Nov	Anchalee
7.7	DNA technology	3	12, 16 Nov	Kunlaya
7.8	Protein technology	3	19, 23 Nov	Kunlaya
Final examination:				