

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	15 Aug, 19 Aug (1h)	Thanyada
2. Carbohydrates	3	19 Aug (1h), 22	Suchart
2.1 Monosaccharides and disaccharides 2.2 Polysaccharides 2.3 Glycoconjugates 2.4 Carbohydrate as Information molecules: The sugar code			
3. Lipid	3	26 Aug (1h), 29 Aug, 2 Sep (1h)	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	2 Sep (1h), 5 Sep, 9 Sep (1h)	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	9 Sep (1h), 12 Sep, 16 Sep (1h)	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	16 Sep (0.5h)	Kanoktip
6.2 How enzymes work	0.5	16 Sep (0.5h)	Kanoktip
6.3 Enzyme kinetics as an approach to understanding mechanism	2	19 Sep (1h), 23 Sep (1h)	Kanoktip
3.4 Examples of enzyme mechanisms	1	23-น.ย.	Kanoktip
6.5 Regulatory enzymes	2	26 Sep, 30 Sep (1h)	Kanoktip
6.6 Enzyme applications	1	30-น.ย.	Kanoktip
Mid-term examination:			
7. Nucleic acids and information pathways			
7.1 Nucleic acids	2	17 Oct, 21 Oct (1h)	Anchalee
7.2 Gene and chromosomes	2	21 Oct (1h), 24 Oct	Anchalee
7.3 DNA metabolism (replication)	2	28-น.ย.	Anchalee
7.4 RNA metabolism (transcription)	2	31 Oct, 4 Nov (1h)	Anchalee
7.5 Protein metabolism (translation)	2	4 Nov, 7 Nov	Anchalee
7.6 Regulation of gene expression	4	11 Nov, 14 Nov	Anchalee
7.7 DNA technology	3	18 Nov, 21 Nov	Kunlaya
7.8 Protein technology	3	25 Nov, 28 Nov	Kunlaya
Final examination:			