

Schedule for 2310380

BIOCHEMISTRY FOR BIOENGINEERINGS (3 credits)

First semester (2023)

Time: Mon 9.00-10.30, Wed 9.00-10.30		Co-ordinator: Kuakarun	
(*) 2 h 9.00- 11.00			
Room: TBA			
Topic	Hrs.	Date	Instructor
1. Foundations of biochemistry	2	7, 9, 16, 21 Aug	Rath
2. Structure and catalysis			
2.1 Carbohydrates	2		Rath
2.2 Lipids	2		Rath
2.3 Nucleotides and nucleic acids	2	23, 28, 30, Aug, 4, 6(*) Sep	Kittikhun
2.4 Amino acids and proteins	2		Kittikhun
2.5 Enzymes	4		Kittikhun
3. Bioenergetics and Metabolism			
3.1 Overview of bioenergetics and metabolism	2	11, 13, 18, 20 Sep	Pattana
3.2 Carbohydrate metabolism	3		Pattana
3.3 Lipid metabolism	1		Pattana
Mid-term examination: 25 - 29 Sep 2023 [TBA]			
3.3 Lipid metabolism (continue)	1	2, 4 Oct	Pattana
3.4 Metabolism of N-containing compounds	2		Pattana
3.5 Integration of metabolism and metabolic regulation	2	9 Oct(*)	Kuakarun
4. Information pathways		11, 16, 18, 25, 30(*) Oct	
4.1 DNA replication	2		Pawinee
4.2 Transcription	2		Pawinee
4.3 Translation	2		Pawinee
4.4 Gene regulation	2		Pawinee
5. DNA Technology		1, 6, 8, 13, 15, 20 Nov	
5.1 Genetic engineering	4		Kuakarun
5.2 Metabolic engineering	5		Kuakarun
Final-term examination: 27 Nov- 12 Dec 2023; [TBA]			