

COURSE SCHEDULE
SCID506 Concept of Molecular Biosciences Credit 2(2-0-4)
Aug 9-Sep 23, 2024
Faculty of Science, Mahidol University

Period	DATE	TIME	TOPIC	Room	LECTURER
Unit I Chemical principles in biological science					
	F 9 Aug	0900-1000	Course Orientation (Mandatory-everyone must attend.)	R503	Jirundon
1		1000-1100	pH, pKa, and ionization	R503	Jirundon/ Danaya
2		1100-1200	Bonding, force, interaction, and stereochemistry of molecules	R503	Danaya/ Jirundon
	M 12 Aug		Self-study (H.M. Queen Sirikit's Birthday)		
3	W 14 Aug	0900-1000	Bonding, force, interaction, and stereochemistry of molecules	R503	Danaya/ Jirundon
4,5		1000-1200	Protein structure and function	R503	Danaya/ Jirundon
		1300-1500	Questions & Answers for Unit I	R503	Jirundon & Danaya
Unit II Biomolecules					
6,7	F 16 Aug	0900-1100	Thermodynamics and biological oxidation	R503	Kittisak/ Ruchanok
	M 19 Aug	0900-1200	EXAM I (Unit I) 50 point	MDL3	
8,9	W 21 Aug	0900-1000	Oxidative Phosphorylation	R503	Kittisak/ Ruchanok
		1000-1100	Photophosphorylation, light & life	R503	Kittisak/ Ruchanok
		1100-1200	Special topic for Unit II: Mitochondrial Carrier Proteins and Disease	R503	<u>Laran</u>
10	F 23 Aug	0900-1000	Lipid and biomembrane	R503	Jirundon/ Danaya
11		1000-1100	Carbohydrate and glycobiology	R503	Sakonwan/ Danaya
		1100-1230	Questions & Answers for Unit II	R503	Kittisak
Unit III Chemical and energy metabolism					
12,13	M 26 Aug	0900-1100	Enzyme kinetics and catalysis	R503	Ruchanok/ Kittisak
		1100-1230	Questions & Answers for Unit III	R503	Sakonwan & Jirundon
14,15	W 28 Aug	0900-1100	Metabolism of carbohydrate	R503	Sarawut/ Laran
16,17	F 30 Aug	0900-1100	Metabolism of lipids	R503	Sarawut/ Laran
		1100-1200	Questions & Answers for Unit III	R503	Ruchanok
	M 2 Sep	0900-1200	EXAM II (Unit II) 60 point	MDL3	
18,19	W 4 Sep	0900-1100	Metabolism of nucleic acid and amino acid	R503	Laran/ Jamorn
		1100-1200	Questions & Answers for Unit III	R503	Laran
Unit IV Gene and genetic regulation					
	F 6 Sep	0900-1000	Special topic for Unit III: Cell Metabolism & regulation	R503	Sarawut
		1000-1100	Questions and Answers for Unit III	R503	Sarawut
20,21	M 9 Sep	0900-1100	Gene expression and control I	R503	Kornkamon/ Mikhail
22,23	W 11 Sep	0900-1100	Gene expression and control II	R503	Kornkamon/ Mikhail
		1100-1200	Questions & Answers for Unit IV	R503	Kornkamon
24,25	F 13 Sep	0900-1100	DNA replication, repair and recombination	R503	Danaya/ Waraporn
	M 16 Sep	0900-1200	EXAM III (Unit III) 80 point	MDL3	
26	W 18 Sep	0900-1000	DNA replication, repair and recombination	R503	Danaya/ Waraporn
		1000-1100	Questions & Answers for Unit IV	R503	Danaya
		1100-1200	Special topic for Unit IV: Genes, genomes and biological function	R503	Mikhail
	F 20 Sep		Self-study		
	M 23 Sep	0900-1200	EXAM IV (Unit IV) 70 point	MDL3	
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