

Schedule for 2310335 (ปี 3, 47 คน)			
BASIC PHYSICAL BIOCHEMISTRY (2 credits)			
First semester (2024)			
Time: MON 11.00-12.00; WED 9.00 - 10.00		Co-ordinator: Thanyada	
Room: 521 SCI10			
Topic	Hrs.	Date	Instructor
Thermodynamics of biochemical reactions (heat, work, enthalpy, the first law of thermodynamics, entropy, the second and the third laws of thermodynamics, the Gibbs energy, energy distribution in molecular assemblies, biochemical equilibria)	5	5, 7, 14, 19, 21Aug	Thanyada
Transport phenomena of biomolecules (random walk, Fick's law, protein molecular weights and charge, size & shape of macromolecules, lateral diffusion, ion and small protein transport through a membrane)	4	26, 28Aug, 2, 4Sep	Veerasak
Electronic properties of biomolecules (bioelectrochemistry, electronic properties of biomolecules in aqueous solution)	2	9, 11Sep	Veerasak
Hydrodynamics (sedimentation I)	2	16, 18Sep	Kittikhun (ตามเดิม)
Mid-term examination: สอบ 23 - 27 Sep 2024; 26 ก.ย. 2567 เวลา 8:30-10:30 น.			
Hydrodynamics (osmotic pressure, viscosity)	4	30Sep, 2 (นัดเพิ่มเติม), 7, 9Oct	Kittikhun (ตามเดิม)
Enzyme kinetics (first-order and second-order rate law, Arrhenius plot, Michaelis-Menten mechanism, thermal motion of molecules, biophysical methods for studying enzyme catalysis)	5	16, 21, 28, 30Oct, 4Nov	Alisa
Quantum and molecular mechanics (basis principle for quantum mechanics and molecular mechanics, weak forces interaction, protein folding, surface phenomena)	5	6, 11, 13, 18, 20Nov	Thanyada
Final-term examination: สอบ 25 Nov - 9 Dec 2024; 26 พ.ย. 2567 เวลา 8:30-10:30 น.			