

## Schedule for 2310335 (ปี 2, 39 คน)

## BASIC PHYSICAL BIOCHEMISTRY (2 credits)

## Second 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	6, 8, 13, 15, 20Jan	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	22, 27, 29Jan, 3Feb	Veerasak
Electronic properties of biomolecules (bioelectrochemistry, electronic properties of biomolecules in aqueous solution)	2	5, 10Feb	Veerasak
Hydrodynamics (sedimentation I)	2	17, 19Feb	Kittikhun (ตามเดิม)
Mid-term examination: สอบ 3 - 7 Mar 2025; 03-03-2025 08:30 - 10:30 น.			
Hydrodynamics (osmotic pressure, viscosity)	4	24, 26Feb, 10, 12Mar	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	17, 19, 24, 26, 31Mar	Alisa
Quantum and molecular mechanics (basis principle for quantum mechanics and molecular mechanics, weak forces interaction, protein folding, surface phenomena)	5	2, 9, 21, 23Apr (นัดเพิ่ม 1 ครั้ง)	Thanyada
Final-term examination: สอบ 28 Apr - 14 May 2025; 28-04-2025 13:00 - 15:00 น.			