

Schedule for 2310335

BASIC PHYSICAL BIOCHEMISTRY (2 credits)

First semester (2021)

Time: TUE 11.00-12.00; WED 9.00 - 10.00

Co-ordinator: Thanyada

Room: TUE 503; WED 521-SCI10

MT: 2310335_2021.Group

MT code: if8zwgh

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	10, 11, 17, 18, 24Aug	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)	5	25, 31Aug, 1, 7, 8Sep	Surasak
Electronic properties of biomolecules (bioelectrochemistry, electronic properties of biomolecules in aqueous solution)	2	14, 15Sep	Surasak
Hydrodynamics (sedimentation I)	4	21, 22Sep, 5, 6Oct	Kittikhun
Mid-term examination: สอบ 27 Sep - 1 Oct 2021 [30-Sep-2021, 08:30 - 10:30]			
Hydrodynamics (osmotic pressure, viscosity)	3	12, 19, 20 Oct	Kittikhun
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	26, 27 Oct, 2, 3, 9Nov	Alisa
Quantum and molecular mechanics (basis principle for quantum mechanics and molecular mechanics, weak forces interaction, protein folding, surface phenomena)	6	10, 16, 17, 23, 24Nov (นัดเพิ่ม 1 ชม)	Thanyada

Final examination: สอบ 29 Nov - 14 Dec 2021 [30-Nov-2021, 08:30 - 10:30]