Schedule for 2310335

BASIC PHYSICAL BIOCHEMISTRY (2 credits)

First semester (2020)

Time: MON 11.00-12.00; WED 9.00 - 10.00

Room: 521 SCI10

Co-ordinator: Thanyada

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, 17เที่ยง, 19, 24, 26 Aug	Thanyada (online teaching)
Transport phenomena of biomolecules (random walk, Fick's law, protein molecular weights and charge, size & shape of macromolecules, lateral diffusion, ion and	5	31Aug, 2, 7, 9, 14 Sep	Surasak
Electronic properties of biomolecules (bioelectrochemistry, electronic properties of biomolecules in aqueous solution)	2	16, 21 Sep	Surasak
Hydrodynamics (sedimentation I)	4	23, 28, 30 Sep	Kittikhun
Mid-term examination:			
Hydrodynamics (osmotic pressure, viscosity)	3	12, 14, 19 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	5	21, 26, 28 Oct, 2, 4 Nov	Alisa (online teaching)
Quantum and molecular mechanics (basis principle for quantum mechanics and molecular mechanics, weak forces interaction, protein folding, surface	6	9, 11, 16, 18, 23, 25 Nov	Thanyada (online teaching)
Final examination:			