Schedule for 2310335

BASIC PHYSICAL BIOCHEMISTRY (2 credits)

First semester (2018)

Time: TUE 11.00-12.00; WED 9.00 - 10.00

Room: TUE 503; WED 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	13,14,20,21,27 Aug	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	28Aug, 3,4,10,11Sep	Surasak
Electronic properties of biomolecules (bioelectrochemistry, electronic properties of biomolecules in aqueous solution)	2	17,18 Sep	Surasak
Hydrodynamics (sedimentation I)	4	24,25Sep, 1,2Oct	Kittikhun
Mid-term examination:			
Hydrodynamics (osmotic pressure, viscosity)	3	15,16,22Oct	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	29,30Oct, 5,6,12Nov	Alisa
Quantum and molecular mechanics (basis principle for quantum mechanics and molecular mechanics, weak forces interaction, protein folding, surface phenomena)	6	13,19,20,26,27Nov (สอนเพิ่ม1ครั้ง)	Thanyada
Final examination:			