Final "*flashback*":   NELSON

biological base facts   molecular building blocks

physical base facts   interaction energies, thermal energy

thermal disorder   statistical tools   *chapter 3*
                                     Boltzmann distribution
                                     MB distribution of speeds

molecular conformations   statistical weights, partition function   *(excerpt from*
                                     polymer statistics   *Myer Jackson,*
                                     Gaussian distribution (Central Limit Theorem)   *"Molec. & Cellular*
(MT exam I)   *Biophysics")*

random walks & diffusion   Brownian motion, binomial distribution   *chapter 4*
                                     friction, dissipation
                                     Einstein relation
                                     ensemble diffusion, diffusion constant, Fick's laws
                                     transport, membrane potential

thermodynamics   entropy, temperature, Free Energy   *chapter 6/7*

                                     entropy ⟷ disorder
                                     entropic forces
                                     reaction kinetics
                                     two-level systems
                                     osmosis
                                     depletion forces
                                     electrostatics in solution

(MT exam II)

chemical forces, self-assembly   chemical potential   *chapter 8.1/8.2*
                                     reaction equilibria
                                     ligand binding
                                     cooperativity

(final exam)