Tentative Plan

In Blue: already done

Class	Topic	Book/Chapter
1.	Intro, Estimates [Length scales]	PBoc – Chap 2 – Sections : 2.2.1, 2.2.2
2.	Idea of k_BT. (as eV)	Nelson Chap 1
3.	Random walk	Nelson Chap 4
4.	Fick's Law	Nelson Chap 4
5.	Application of Fick's law to bacterial size; Bacteria need to move.	Nelson Chap 4
6.	**22 Aug:** Time scales in biology	Nelson Chap 3 Timescales: PBoC: Chap 3
7.	**25 Aug :** derive D=kbT/(6 pi eta a); "Stokes Law"; **Boltzmann distribution**; Bjerrum length;	Nelson Chap 4 (4.1.4)
8.	**29 Aug : Tutorial (Estimates, Boltzmann Distribution)**	
9.	**1 Sept : 8-10:** Nernst potential, Donnan Equlibrium; Membrane potential; Practise sums	
10	**5 Sept: Tutorial**	
11	**8 Sept: Viscosity; Reynold's Number; Coasting time; Time reversal;**	
12	**11 Sept: Test**	
13	**15 sept: Water:** Hydrophobic (entropic) forces. **Entropic Forces ; osmotic pressure; Revision**	