Syllabus for the midsem to be held on 26th September 2016 from 10:00 am to 12:00 pm.

1. Basics of calculations:
    1.1 Unit conversions (including conversions in equations)
    1.2 Significant figures
    1.3 Validation of results
2. Classification of processes
3. Explicit information
4. Implicit information (mainly densities)
    4.1 Densities of solutions
    4.2 Densities of gases (Equations of state. Need not know them by memory. But, only their application.)
5. Multiphase systems
    5.1 Application of the Gibbs phase rule in the context of the information required for solving problems.
    5.2 Applicationof Henry's and Raoult's law
    5.6 Basic terms related to liquid-vapor equilibrium
    5.7 Basic terms related to solid-liquid equilibrium
    5.8 Getting explicit information related to multiphase equilibria.

6. Material balance (Non-reactive, reactive, single-phase and multi-phase processes)
    6.1 Generic balance equation
    6.2 Identifying independent material balances

6.3 Identifying independent relations in a given problem.

6.4 Degree of freedom analysis

6.5 For multiple processes, having a rough idea of where to start, if one is expected to get answers manually or

The parts in red are important. Please take care while handling them. Almost all of the above topics are covered in detail in the mindmap based notes.