**Vocabulary**

*Macroscopic level*: viewing the overall system to describe how the mass, momentum, energy, and angular momentum in the system change because of the introduction and removal of these entities via the entering and leaving streams and because of various other inputs to the system from the surroundings.

*Microscopic level:* viewing the fluid mixture in a small region within the equipment.

*Molecular level:* viewing the system through a fundamental understanding of the mechanisms of mass, momentum, energy, and angular momentum transport in terms of molecular structure and intermolecular forces

* Macroscopic - overall system, no details
  + Balances
* Microscopic - small region of system, more details
  + Equations of change
* Molecular - intermolecular forces
* Different length scales
* Build upon each other in theory and equations
* Conservation laws applied at each level