ECH 6272  
Molecular Basis of Chemical Engineering  
Fall 2019

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Room 331 Chemical Engineering Building, Phone No. 392-0869

Class hours: T, Th 3:00-4:55 (periods 8-9)

Location: CSE E107

Office hours: Thursday, 1:30, CHE 331

ST: Alexander Hoffman (ajhoffman@ufl.edu)

Grader: TBD

Grading: Exam I: 35%, Exam II: 35%, Exam III: 30%


Website: http://elearning.ufl.edu/

Topics

- Concepts from mechanics
- Review of thermodynamics and probability
- Molecular potential energy
- Statistical mechanical ensembles and thermodynamics
- Other ensembles and fluctuations
- Systems of independent molecules
- Ideal monatomic gas
- Ideal diatomic and polyatomic gases
- Chemical equilibrium
- Classical statistical mechanics
- Imperfect gases
- Monatomic crystals
- Lattice gas models
- Transition state theory
Supplemental textbooks
