



CHEE 621 Thermodynamics

Winter 2016

CLASS SCHEDULE

T 8:35-11:25, ENGTR 2100, Jan 12 – April 12

INSTRUCTOR

Phillip Servio, PhD
Office: Wong 4110
Phone: 398-1026
Email: phillip.servio@mcgill.ca
Office hours: W 9:30-10:30 or by appointment

TEACHING ASSISTANTS (TAs)

Zeina Baalbaki (zeina.baalbaki@mail.mcgill.ca)

COMMUNICATION

My personal website (accessible via <http://www.hydratetech.com/thermodynamics>) will be used to distribute course materials, including lecture slides, reading assignments, and instructions for assignments & term project.

If you need to reach me, please send an email to phillip.servio@mcgill.ca. I will try to respond within 24-48 hours. If you have questions about the material, please come to my designated office hours or schedule an appointment. Specific questions about problems or theory will not be answered through email.

COURSE DESCRIPTION

The course will cover advanced classical and statistical thermodynamics. In particular, fluid phase equilibria, phase stability, use of equation of state to determine fluid properties for pure components and mixtures, intermolecular forces, fugacity in solid, gas and liquid mixtures, solubility, high pressure phase equilibria, ensembles, partition functions and configuration integral. A working knowledge of a high level programming language such as MATLAB[®] is required for the course.

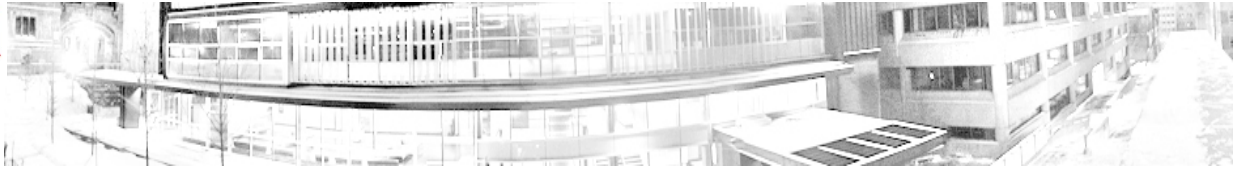
COURSE MATERIALS

There is no textbook for this course. All necessary material, e.g., lecture notes, readings, etc., will be posted on my website or given in class.

REFERENCE MATERIAL

Books

- 'Molecular Thermodynamics of Fluid Phase Equilibria', J.M. Prausnitz, R.N. Lichtenthaler, E.G. de Azevedo, Prentice Hall, 3rd edition (1999)



- 'Thermodynamics and its Applications', J.W. Tester, M. Modell, Prentice Hall, 3rd edition (1997)

EVALUATION AND ASSESSMENT

The students will be responsible for submitting assignments and a term project. A penalty of 10% per day will be issued to all assignments/projects that are submitted past the due date.

MARK DISTRIBUTION

- Assignments 35%
- Project 20%
- Final Exam 45%

ACADEMIC INTEGRITY

McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures.

(<http://www.mcgill.ca/students/srr/honest/>)