Midterm Examination will be held on Friday, 23 July, 260 Bagley.

- Covering:
  - Lectures 1-12
  - All Problems in Homework Assignments 1-4
  - Material in Engel, Drobny & Reid Ch. 1-6.

- Bring
  - Calculator (any type, but no lap tops.)
  - Pen
  - Straight Edge (for drawing graphs)
  - Blue/Green Book
  - 1 page of notes(double-sided)

- Format:
  - Closed Book.
  - Open Notes.

- Grading: Grading of the examination will be based on the standards stated in the Chemistry 452/456 course syllabus. Please review the standards section of the syllabus. Important points to keep in mind:
  
  - Partial credit is USUALLY given in minimum units of 3-5 points.
  - All exam answers must be written in ink.
  - Obtaining the correct numerical answer is counted in partial credit grading. An answer that is within 10% of the correct answer will be fully credited.
  - Calculations must include physical units and a proper dimensional analysis must be included in the calculation.
  - Students are expected to understand how to use their calculators properly. Students will NOT be forgiven for mistakes resulting from calculator errors.
  - When you are asked to explain an answer or are asked to define a term, a statement in complete sentences is required.
  - If you are given the option to choose from a list of problems (e.g. answer three of the following five questions) you will NOT be credited for answering more than the requested number. For example, if you are allowed to select three problems out of five for answering…and you answer all five… the graders will NOT credit you for the highest three scoring problems out of five. The first three problems presented on the blue book will be graded.
Examination Outline:
- Part 1: Definitions. 18 points. Explanations of thermodynamics concepts. Keep definitions to 200 words or less. Definitions must be expressed in complete sentences.
- Part 2: Discussion Question. 20 points. This part consists of 5-6 questions that test your knowledge of thermodynamic concepts. Calculations are not expected…but may be used to illustrate a point. You are usually required to answer 3 or 4 out of 5 or 6 questions. This part is worth 20 points and should NOT require more than 10 minutes of your time. Limit your responses to 200 words. Answers must be expressed in complete sentences.
- Part 3: Short Calculations. 30 points. This part gives you 4 short problems that can usually be answered with a single calculation or a few lines of math. Again you chose 2-3 problems to answer.
- Parts 4. 32 points. Two multi-step calculations will be presented. Chose and perform only 1 multi-step calculation.

Exam Grades
- Graded exams are returned about 1-2 weeks after the exam date.
- Grades are noted on the inside front cover of the blue book.
- Re-grade requests must be submitted in writing no later than 24 hours after return of the exam.
- Re-grade requests must be written in simple, precise language, briefly and clearly describing the reason for the re-grade request. Limit re-grade requests to 200 words. The original exam must be submitted. Any answer written in pencil will not be regarded. The entire exam will be re-graded so points may actually be lost.
- Note: comparing one or more exams as a basis for a re-grade will result in all exams being regarded. This means the higher scored exam(s) may actually be diminished in points. Students may not submit other students’ exams for comparison without written permission from the other students.
- Re-grade requests may NOT be made verbally. No exceptions.
- Re-grade decisions are final. No exceptions.
- Grades and re-grades will NOT be discussed via email.