

**CHM B23H3**  
*Chemical Thermodynamics and Elementary Kinetics*  
2022-2023

**Instructor:** James Donaldson      EV 454  
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**Textbook:**      *Physical Chemistry* 11th Ed., vol. 1  
by Atkins, de Paula and Keeler

Assessment Title	Percent (%)	Date(s)
Labs	15	2022-11-01 2022-11-14 2022-12-05
Test 1	10	2022-10-05
Test 2	20	2022-11-16
Quizes	10	2022-09-19 2022-09-26 2022-10-03 2022-10-17 2022-10-24 2022-10-31 2022-11-07 2022-11-14 2022-11-21 2022-11-28
Assignments	10	2022-09-21 2022-10-19 2022-11-09 2022-12-05
Final Exam	35	
<b>Total Percentage</b>	<b>100</b>	

**Office Hours:** *by appointment*

Makeup tests will be permitted, if you cannot attend due to illness or exceptional personal circumstances. If you know that you will miss a test, please speak to me in advance. Makeup tests may be online instead of in person.

A conflict with another class is not an acceptable reason to miss a test.

I will discuss re-weighting of the two tests with you on an individual basis. The total for both tests will still sum to 40%.

Assignments will not be accepted after the solutions are posted. There is a penalty of 5% per day late before that time.

Quizzes (each worth 1%) are online and are due before class on Mondays.

The University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. ***Potential offences in assignments include obtaining or providing unauthorized assistance on any assignment.*** On tests and exams cheating includes using or possessing unauthorized aids, looking at someone else's answers during an exam or test, misrepresenting your identity, or falsifying or altering any documentation required by the University, including doctor's notes.

Lecture Schedule  
(Note that this may change somewhat)

Week	Dates	Content	notes
0	Sept 7	Introduction	
1	Sept 12, 14	Gases; First Law	
2	Sept 19, 21	First Law, Second Law	<i>Ass. 1 due Sept 21</i>
3	Sept 26, 28	Second and Third Laws; Free energy	
4	Oct 3, 5	Molar properties; chemical potential	<b><i>Test 1 Oct 5</i></b>
----- READING WEEK -----			
5	Oct 17, 19	Physical transformations	<i>Ass. 2 due Oct 19</i>
6	Oct 24, 26	Mixtures; solutions; phase diagrams	
7	Oct. 31, Nov 2	Activity; Chemical equilibrium	
8	Nov 7, 9	Electrochemistry	<i>Ass. 3 due Nov. 9</i>
9	Nov 14, 16	Chemical Kinetics	<b><i>Test 2 Nov 16</i></b>
10	Nov 21, 23	Reaction mechanisms	
11	Nov 28, 30	Photochemistry & reaction theories	
12	Dec 5	Special topics	<i>Ass. 4 due Dec. 5</i>

*I will try to reserve the Wednesday lectures for problem-solving, discussions and for going over some new mathematical concepts*