

CHEM 104: MAJORS CHEMISTRY II
FUNDAMENTAL PRINCIPLES OF CHEMISTRY
SPRING 2012
MWF 10:20 - 11:10 a.m. ✧ 2121 Chemistry

INSTRUCTOR: Prof. Marcetta Darensbourg 408 Chemistry Bldg. 845-5417 or 5-2981
Email: marcetta@mail.chem.tamu.edu,
MYD Research website: <http://www.chem.tamu.edu/rgroup/marcetta/>
Office hours: Tuesday & Thursday 4 - 5 p.m.; or by appointment

TEACHING ASSISTANT: Danielle Crouthers
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Office Hours: MW 11:10 AM – 12:10 PM or by appointment

WEBPAGE: <http://www.chem.tamu.edu/rgroup/marcetta/chem104>

TEXT: “**Chemical Principles: The Quest for Insight**,” 5th Edition, Peter Atkins and Loretta Jones; W.H. Freeman and Company, New York (2010). (ISBN 1429219556)
“**Student Study Guide and Solutions Manual for Chemical Principles: The Quest for Insight**,” 5th Edition, John Krenos, Joseph Potenza, et al.; W.H. Freeman and Company, New York (2010).

COMPANION WEBSITES:
http://www.coursesmart.com/9781429257473?_professorview=false&_instructor=2937478
(to purchase an e-version of the book)
<http://www.whfreeman.com/ichem5e> (for student resources)

GRADING:	Hour Exams (3 at 100 pts each)	300
	Short Quizzes and homework assignments	100
	<u>Final Exam</u>	<u>200</u>
	Total:	600

EXAM SCHEDULE: **Hour Exams:** February 6, March 9, April 25
Final Exam: Friday, May 4, 3:00 – 5:00 PM (and MYD’s birthday)

COURSE DESCRIPTION: Fundamentals of chemistry, particularly introductions to thermodynamics, equilibria, electrochemistry, and various applications. Special topics may be offered as time allows. Quizzes may be unannounced at various class periods. Homework will be assigned throughout the semester. This course will prepare students for further study of chemistry, and for technical and life sciences.

PREREQUISITES: For entering students with satisfactory scores on math and chemistry placement exams; Chemistry 103.

ADA POLICY: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities, in Room 126 of the Koldus Building or call 845-1637.

AGGIE HONOR CODE

“An Aggie does not lie, cheat, or steal or tolerate those who do.”

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System.

For additional information please visit: www.tamu.edu/aggiehonor/

READING ASSIGNMENTS AND LECTURE SCHEDULE:

Week	Chapter	Topic
January 18 – January 20	7	Kinetics vs. Thermodynamics – Overview
January 23 – January 27	7	Thermodynamics – Enthalpy, First law
January 30 – February 3	7 8	Thermodynamics – Enthalpy, First law Thermodynamics – Second and Third laws
February 6		EXAM I
February 8 – February 10	8	Thermo Entropy and Gibbs Free Energy
February 13 – February 17	10 10,11	Gibbs Free Energy and K_{eq} Chemical Equilibria
February 20 – February 24	11	Acids and Bases
February 27 – March 2	12	Titrations, Buffers, Solubility Products
March 5 – March 7	12	Titrations, Buffers, Solubility Products
March 9		EXAM II (Ch. 8-12)
March 19 – March 23	13	Phase Transitions/Equilibria
March 26 – March 30	13	Nuclear Chemistry
April 2 – April 6	9	Electrochemistry
April 9 – April 13		Electrochemistry
April 16		EXAM III
April 18 – April 20		Selected Topics from (Organic or Bioinorganic)
April 23 – April 27		Selected Topics from (Organic or Bioinorganic)
April 30 – May 1		Selected Topics from (Organic or Bioinorganic)
Final Exam: Friday, May 4th, 2012		
3:00 – 5:00 PM		