## Chemistry A055 -775 (CRN 72300) Contemporary Chemistry Fall, 2013

Tuesday, Thursday 07:30 - 09:00 P.M. Lecture Time, Location

Elmendorf Education Building, Room

Instructor Thomas H. Morse

thmorse@uaa.alaska.edu Email

Tuesday, Thursday 07:00 - 07:30 Office Hours

Elmendorf Education Building, Room

UAA Custom Edition of the 4th Edition of Textbook

Introductory Chemistry, by Nivaldo Tro

Chapters 1 – 11, Selected Sections of Chaps. 12, 13 Material Covered

(not tested on Chap. 12

300 pts. **Grading Policy** 3 Semester Exams

1 Final Exam (Comprehensive) 100 pts. Total

400 pts.

Grades are curved via a normal Gaussian Distribution

Sep 06, 2013 (100% Refund, Removal from Transcript) Add/Drop Deadline

Withdrawal,

Credit to Audit Deadlines Nov. 15, 2013

Thursday Dec. 12, 2013, at regular class time. Final Exam

"Nothing is to be feared, only understood." Marie Curie

"The supreme principle of education – to offer food only to those who hunger for it" Frederick Nietzsche Course Objectives - To give students a thorough grounding in introductory inorganic chemistry (both theoretical and computational). This will prepare them for future chemistry courses, in particular the Chemistry 103-104 or Chemistry 105-106 sequences at UAA.

## Semester Schedule for Fall, 2013 (Tentative, subject to change)

| Aug. 27            | <del>Chapters 1, 2</del>                   |
|--------------------|--|
| Aug. 29            | I * *                                      |
| Sep. 03            |  |
| Sep. 05            |  |
|                    | Chapter 3                                  |
| Sep. 12            |  |
| Sep_17_            | · · · · · · · · · · · · · · · · · · ·      |
|                    | Chapter 4                                  |
| Sep. 24            |  |
| Sep. 26            |  |
| Oct. 01            | Chapter 5                                  |
| Oct. 03            | <del>Chapter 6</del>                       |
|                    | Chapter 6                                  |
| Oct. 10            | • · · · · · ·                              |
| Oct. 15            | Chapter 7                                  |
| <del>Oct. 17</del> | Exam #2 (Chapters 4 – 6)                   |
| Oct. 22            | — Chapter-8                                |
| Oct. 24            | Chapter 8                                  |
| Oct. 29            | Chapter 9                                  |
| Oct. 31            | Chapter 9                                  |
| Nov. 05            | — Chapter 10                               |
| Nov. 07            | Chapter 10                                 |
| Nov. 12            | Exam #3 (Chapters 7 – 9)                   |
| Nov. 14            | AChapter 10, Essential Fatty Acids Lecture |
| Nov. 19            | ሎChapter 11                                |
| Nov. 21            | Chapter 11                                 |
| Nov. 26            | Chapter 11                                 |
| Nov. 28            | No Class – Thanksgiving Holiday            |
| Dec. 03            | Chapters 12, 13                            |
| Dec. 05            | Chapter 13, Nuclear Radiation Lecture      |
| Dec. 10            | Open Review                                |
| Dec. 12            | Final Exam (Comprehensive)                 |
|                    |  |

## **Chemistry 055 Final Exam Study Guide**

- 1) Density Calculations Chapter 2
- 2) Specific Heat Calculations Chapter 3
- 3) Balancing Chemical Equations Chapter 7
- 4) Mass-to-Mass Calculations Chapter 8
- 5) Valance (Outer Shell) Electrons and Columns in the Periodic Table Chapter 9
- 6) Use of Electron Filling Chart Chapter 9
- 7) Ability to solve for any variable in the equation  $v=(f)\cdot(\lambda)$  Chapter 9.
- 8) Electronegativity and Covalent, Polar Covalent, Ionic Bonds Chapter 10
- 9) Lewis Structures, Resonance Structures Chapter 10
- 10) Gas Laws Chapter 11
- 11) Pressure Unit Conversions, STP Chapter 11
- 12) Law of Partial Pressures Chapter 11
- 13) Percentage of Elements in Air 78% Nitrogen (N<sub>2</sub>), 21% Oxygen (O<sub>2</sub>)
- 14) Molarity Calculations, Molarity Dilutions Chapter 13, Lecture Notes
- 15) Percent Mass Calculations Lecture Notes
- 16) Ability to use Solubility Tables on P. 217 of Text (Chapter 7)