Course Title: Fundamentals of Chemistry
Submitted By: Jason Slattery
Semester Course Prefix and Number: CHEM 1511
Old Quarter Course Prefix and Number: CHEM 101
Number of Credits: 4
Number of Lecture Credits: 3
Number of Lab Credits: 1
Number of Lab Hours: 2
Class Size: 40/lecture 20/lab

Course Purpose Code:
_____ 0 – Developmental Courses
_____ 1 – Non-transferable
_____ 2 – Technical course related to career programs
_____ 3 – College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)
_____ 4 – Other college course not considered a part of MNTC (e.g. computer science, health, physical education)
_____ X 5 – Course which is intended to fulfill the Minnesota Transfer Curriculum (MNTC) requirements or intended for transfer.
_____ 9 – Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

Catalog Description:
This course is a presentation of the principles of inorganic chemistry, amplified with relevant applications. Atomic structure, periodic classification of the elements, chemical bonding, matter and energy changes, solutions, electronic structure, equilibrium, and acid-base theory are among the topics covered. This course is designed for students who are not science majors. This course is recommended for elementary education, various allied health field majors and as a preparation for CHEM 1522.

Prerequisites and/or recommended entry skills/knowledge:
Course Prerequisite(s): None
Reading Prerequisite: None
Composition Prerequisite: None
Mathematics Prerequisite: Placement by CPT score or grade of C or better in MATH 0095

Career Programs and Transfer Majors Accessing this Course:
All Science Majors

Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable:
(Notes: No more than two goals may be met by any one course. AASC review and the Chief Academic Officer’s approval are required.)
0. None
1. Communications
2. Critical Thinking
3. X Natural Sciences
4. Mathematical/Logical Reasoning
5. History and the Social and Behavioral Sciences
6. The Humanities and Fine Arts
7. Human Diversity
8. Global Perspectives
9. Ethical and Civic Responsibility
10. People and the Environment
Learning Outcomes: (including any relevant competencies listed in the Minnesota Transfer Curriculum)

Upon completion of this course, the student will be able to:

- Demonstrate understanding of scientific theories
- Critically analyze and solve problems with multiple steps
- Formulate and test hypotheses by performing laboratory experiments
- Communicate their experimental findings, analyses, and interpretations in writing

Student Assessment Methods:

- End of chapter homework problems
- Quiz and exam problems
- Laboratory reports

Use of Instructional Technology: (includes software, interactive video and other instructional technologies):

NA

Additional Special Information: (special fees, directives on hazardous materials, etc.)

Transfer Information: (Please list colleges/majors that accept this course in transfer.)

Affiliated Mesabi Range College Courses and Programs:

Approvals:

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Distribution: Original – Instructional Services
Copies: Transfer Specialist, Originating Faculty Member, Records
Revised: December 2012