

**Eastern WV Community & Technical College
Master Course Record**

Course Prefix and Number: CHM 100
Course Title: Chemistry for Elementary Education
Recommended Transcript Title: Chemistry for Elementary Education
Date Approved/Revised: October 14, 2013, January 13, 2015, February 4, 2015 by e-vote
Credit Hours: 3 Contact hours per week (Based on 15 week term): Lecture: 3 Lab:
Prerequisite: EDE 150 Corequisite: CHM 100L Pre/Corequisite:
Grading Mode: Letter Grade
Catalog Description: CHM 100, Chemistry for Elementary Education, is designed primarily for future elementary school teachers. It introduces the student to the basic concepts of chemistry, including atoms, radioactivity, bonding, chemical equations, solutions, acids and bases, and some aspects of organic and biochemistry. The latter part of the course is devoted to the study of chemical science as it applies to the elementary school: mini lectures, demonstrations, experiments, games, textbook and journal reviews are presented by the students. Circumstances permitting, the course ends with practice teaching at an elementary school. Computers are used as aids to instruction and as laboratory tools. The course CHM 100L must be taken concurrently with this course. Elementary Education – Shepherd University 2 + 2 Agreement
Course Outcomes: This course addresses the following intellectual and practical skills as outlined in the LEAP goals: inquiry and analysis, critical and creative thinking, written and oral communication, quantitative literacy, information literacy, and teamwork and problem solving. The student who successfully completes this course will: <ol style="list-style-type: none"> 1. Have knowledge of major concepts from natural science and technology; 2. Solve problems by identifying the essential concepts and formulating a strategy for analysis; 3. Understand the scientific method; 4. Be able to estimate the solution to a problem; 5. Know and understand chemical terms and concepts; 6. Understand basic chemical symbolism, nomenclature, terminology and units; 7. Understand basic atomic structure, the periodic table and bonding; 8. Understand the concepts of solution concentration; 9. Understand how the material in this course relates to their major and to society in general; 10. Work and communicate effectively with other members of this class; 11. Know how to organize, manipulate and interpret data in the form of symbols, tables, diagrams, graphs or written statements and translate information from one form to another;

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12. Recognize patterns, report trends, and present reasoned explanations or draw conclusions.
Implementation Cycle: Spring
Role in College Curriculum: (Check all that apply) <input type="checkbox"/> General Education Core (Specify category) <input checked="" type="checkbox"/> Technical Core (Specify Program) Elementary Education – Shepherd University 2 + 2 Agreement <input type="checkbox"/> Restricted Elective (Specify Program) <input type="checkbox"/> General Elective
Course Fee: None
Instructor's Qualifications: Master's degree with 18 graduate hours in Science Courses
Expanded Course: The relationship between course content and everyday life are emphasized. Present day societal problems are discussed such as environmental pollution, food additives, and ethical aspects of chemical technology including DNA technology. Newspaper, magazine and internet articles are used to illustrate the relevance of the course material to everyday life. This course places a strong emphasis on problem solving. Problem solving in this context refers not only to solving chemistry problems but also to a systematic approach to the processes involved in stating and analyzing any problem. This course is part of the Shepherd University 2 + 2 Agreement for Elementary Education.

Prepared by: Suzanne H. Goodall, Ed.D.

January 13, 2015

Signature, Elementary Education Coordinator

Date

Approved by:

Dean, Academic Services

Date