Eastern Illinois University
Revised Course Proposal
CHM 1040G, The World of Chemistry

1. Catalog description in the style of the University Catalog

(a) Course level: CHM 1040G
(b) Title: The World of Chemistry
(c) Meeting times and credit: 3-2-4
(d) Term to be offered: F,S,Su
(e) Short title: Wld. of Chm.
(f) Course description:
An introduction to chemicals, chemical processes and chemical theories with an emphasis on how chemistry is used to explain and shape our world and condition. No credit toward the major or minor in chemistry, nor for a student who has credit in a previous laboratory-based course in college-level chemistry.
(g) Prerequisite(s): none
(h) This course is writing-active.

2. Student Learning Objectives

General education goals provide students the opportunity to demonstrate:

- the ability to write and speak effectively.
- the ability to think critically.

In Chemistry 1040G learning objectives require that the student will:

- write laboratory reports.
- take short answer essay exams.
- judge calculated answers by comparison with what is physically reasonable.
- assess the ability of modern chemical theory to explain chemical phenomena.
- understand and assess science-related news items.
- understand the nature and behavior of some common chemicals.
- understand the role certain chemicals and chemical reactions play in biological, environmental, or industrial processes.

3. Course Outline

Lecture Portion	Class Periods	Laboratory Exercises	Week
		Check in	1
Matter, Elements and Compounds	5	Measurement in a Chemistry Lab	2
Chemical Symbols	2		
Measurements and Conversions	2	Observation of Chemical Change	3
Atomic Theory and Structure	4	Separation and Identification of Metal ions	4
Periodic trends and atomic properties	3	Light and Electronic Nature of Matter	5
Exam I	1		
Chemical bonding and intermolecular forces	6	Periodic Properties	6

Solutions and the mole	4	Determining the Percentage of Copper in CuO	7
Driving Forces	3	Mass Relationships	8
Recycling	1	Acid/Base Lab	9
Exam II	1	Recrystallization	10
Acid Base Chemistry	5	Polymer Lab	11
Chemistry in biological systems	6	Preparation and properties of soap	12-13
Exam III	1	Content of Vitamin C in Fruit Juices	14
Review	1	Check out	15

4. Evaluation of Student Learning

a. Achievement of student learning will be evaluated based on written laboratory reports (20-30%) and a combination of graded homework , quizzes, in-class exams, and a final exam (70-80%).
b. This course involves students writing short essays and descriptions in assignments, quizzes, examinations and laboratory reports. Therefore it is writing-active.

5. Rationale

a. Since this course deals with chemistry and chemical concepts, it should be placed into the physical science component of the scientific awareness segment of the general education program.
b. The course is designed for non-science students, and no prerequisites are required for the course. Therefore a 1000 level designation is appropriate.
c. The content of this course does not overlap any other course at EIU. The new CHM 1040G course would, of course, replace the existing CHM 1040C and would maintain the same curriculum ID as CHM 1040C.
d. Currently CHM 1040C serves as one of two physical science course options for elementary education majors.

6. Implementation

a. The course may be assigned, initially, to Ms. Davis, Dr. McGuire, Dr. Furumo, or Dr. Klarup.
b. The text to be used is Joesten & Wood's World of Chemistry: Essentials, 2nd edition, 1999.
c. The approved course charge of $10 will continue. In addition, the purchase of goggles and laboratory manuals will continue to be required of students.
d. The course will be first offered Spring 2001.

7. Community College Transfer

A community college course may be judged equivalent to this course.

8. Date approved by the Department: 4/5/2000

9. Date approved by the college curriculum committee: 4/21/00

10. Date approved by CAA: 10/19/00

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