

# EASTERN NAZARENE COLLEGE - Department of Chemistry

## CH104 - General Chemistry II Spring 2006

Dr. Timothy Wooster  
Office: S20A Phone: 3549 email: timothy.t.wooster1@enc.edu  
Office Hours: As posted at my office door

Classroom: S34  
Day: MWF Time 12:40-1:45pm  
Lab: S22 Mon or Tue 2:00-5:30pm

### Overview

This is a course emphasizing thermodynamics, kinetics, nuclear phenomena, equilibrium, acids and bases, electrochemistry, and inorganic chemistry. In the separate laboratory program students will investigate chemical systems, analyze observations and data, devise explanations, and communicate results.

Chemistry 104 is designed to introduce the student to important chemical principles in an exploratory hands-on format. In order to strengthen deductive and inductive thinking skills, a practice will be to investigate a chemical system in the laboratory, record observations and numerical data, attempt to devise logical explanations, then discuss the results and introduce necessary concepts during the class period.

This course is designed to help the student investigate concepts and methodologies common to scientific inquiry. Mastery of the course content will allow the student to

- demonstrate an understanding of the enduring scientific principles by applying them in interpreting data and solving problems
- demonstrate an understanding of the chemical nature of the natural world,
- demonstrate an awareness of the ethical issues in science and the limitations of the field
- demonstrate an understanding of the interactions between science and society

Through the Laboratory component the student will be able to

- demonstrate an understanding and application of the scientific method,
- demonstrate a proficiency in experimental design and the use of models,
- record data and observations accurately and draw logical conclusions,
- evaluate data and conclusions critically, and
- effectively communicate their own scientific results

### Course Materials

**Textbook:** *Chemistry*, 4<sup>th</sup> Edition, Olmsted and Williams, John Wiley & Sons, 2002, ISBN 0-471-39071-2

**Lab book:** As provided by the instructor.

**Scientific calculator:** A scientific calculator is needed in **ALL class and laboratory meetings**. The student is responsible to ensure that the calculator is in working order. Computers are not permitted during evaluations (Celebrations of Learning). Programs for programmable calculators must be cleared prior to a Celebration of Learning evaluation.

**Course Web Page:** The course web page can be found at [www.enc.edu/~timothy.t.wooster](http://www.enc.edu/~timothy.t.wooster). Look here for updates to the class schedule as well as lecture and review material.

## Course Procedures

**Celebration of Learning (COL):** There will be three in-class COL's. No grades will be dropped. Some questions will be multiple choice and others will require a written response or written solution to a numerical problem. See the class schedule for the dates of the COL's.

**Homework:** Students are expected to complete regularly scheduled homework assignments. Complete understanding of all homework is essential for success in this course.

**Writing Assignment:** Students will be asked to write an essay on a topic related to the relationship between chemistry and society. The details of the assignment will be spelled out in a handout.

**Quizzes:** There may be an UNANNOUNCED QUIZ on any day as well as on-line quizzes. (Such quizzes will be quite brief, with no make up allowed.)

**Participation:** The course consists of three sixty-five minute lecture periods and one three-hour and 15 minute laboratory period per week. The class meets fourth period on Monday, Wednesday, and Friday from 12:40-1:45pm. You are expected to participate in all aspects of the course and laboratory. There will be regular reading assignments and homework problems. You should generate a list of questions while completing your reading and homework to aide in the class discussion. Please email ([timothy.t.wooster@enc.edu](mailto:timothy.t.wooster@enc.edu)) me your questions prior to class to help me in best meeting your needs.

## Policy Statements

**Academic Integrity:** A cornerstone of academia is a commitment to academic integrity. In a scholarly community, the importance of having respect for one's own work and the work of others are essential; building a sense of trust among members of such a community is crucial as individuals create, share, and apply scholarly work. The importance of academic integrity is heightened within a Christian community of scholars in that we are also accountable to God for any behaviors of a dishonest nature.

While it is not prudent or practical to attempt to specify an exhaustive list of unacceptable behaviors related to academic integrity, examples of unacceptable behavior include, but are not limited to, the following:

- Cheating (e.g., using any unauthorized materials or devices during an examination, allowing other students to submit your work under their name, changing responses on an exam after it has been graded, etc.).
- Plagiarism, which is presenting the work of others as your own, either directly or by implication (e.g., not giving credit to the original source for any thoughts, ideas, quotations, charts, and so forth that may be included in one's own work, etc.).
- Falsifying information (e.g., reporting of undocumented data, fabricating a set of data, fabricating volunteer hours required for a course, signing the attendance sheet for an absent student, etc.).
- Stealing and/or distributing exams which have not been authorized for release or otherwise taking advantage of dishonest behavior for the purpose of gaining an unfair academic advantage.

Academic dishonesty will not be tolerated. Any incidence of academic dishonesty will be dealt with as outlined in the ***ENC Academic Integrity Policy for Undergraduate and Graduate Studies*** (a copy is available upon request).

**Attendance:** Students are expected to attend all class periods and laboratory sessions. If the student must miss a class or laboratory for any reason other than a sudden illness or family emergency, they must notify the professor prior to the absence and work out a plan to complete the work missed. It is the student's responsibility to determine the material missed by consulting the syllabus and with fellow classmates. If you miss for a legitimate reason, you may meet with the instructor during office hours to get the material you missed. Excessive absence may result in the student being reported to her/his academic advisor, being reported to the academic dean, or may result in the student failing the course unless they withdraw or gain permission from the Academic Dean to reenter the class.

**Late Assignments:** Any item handed in late the same day will receive a 25% deduction. Assignments turned in late the following day are subject to a 50% deduction. Assignments more than one day late are not accepted and receive a zero. It is expected that you will be working ahead on assignments so that any sudden emergency should not prevent you from being able to turn in your assignment. Please communicate well with me ([timothy.t.wooster@enc.edu](mailto:timothy.t.wooster@enc.edu)) concerning any problems that arise.

**Make-up Celebrations of Learning:** A make-up celebration of learning will be scheduled if and only if the COL was missed due to extenuating circumstances beyond the control of the student. The student is expected to speak with the instructor before the regularly scheduled COL to schedule the make-up COL.

**Laboratory:** Students are expected to attend every laboratory session. All laboratory experiments must be completed in the time provided. The laboratory grading policy is based on a student's laboratory technique, results, notebook, accuracy, precision, and behavior. If the student misses a laboratory period for some unavoidable reason, they must, within one week of their return to class, make arrangements for making up the work. **KEY/BREAKAGE DEPOSIT:** A \$25.00 cash deposit is required for a breakage deposit. This \$25.00 is paid as part of the student's bill. Refund is at the end of the year when the student checks out properly. Anyone **DROPPING** the course must be checked out by their lab assistant at the time the course is dropped to receive their Breakage Deposit refund.

**Extenuating Circumstances:** All of the above policies are subject to modification by the instructor on a case-by-case basis. The student may plead his/her case in writing within a reasonable time period.

**Grading:**

Grading by its very nature is subjective. If you feel that a grade has been assigned incorrectly, you may submit a written petition to me within three weekdays of the day the assignment was returned to you. Please submit a copy of the assignment, a detailed description of the perceived problem, a proposed change to the grade, and a valid reason for the suggested change to the grade. Any supporting material should also be submitted

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|--------------------------------|------|
|                                |      |
| Three celebrations of learning | 450  |
| Final Celebration of Learning  | 130  |
| Writing assignment             | 140  |
| In-Class work, Quizzes         | 140  |
| Homework                       | 140  |
| Total                          | 1000 |

| Grade | Percentage     |
|-------|----------------|
| A     | ≥ 92.00        |
| A-    | 90.00-91.99    |
| B+    | 87.00-89.99    |
| B     | 83.00-86.99    |
| B-    | 80.00-82.99... |
| F     | <60.00         |

Therefore, if an assignment has 120 possible points and a student earns 104 points, the percentage is 86.66 and the letter grade would be a B. There is **NO ROUNDING**.