

COURSE SYLLABUS
CHE 201-01
SUMMER 2011

Instructor: Lisa M. Devillez
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<http://chemistryconnections.com>
Office Hours: Immediately following class

Lecture: Jones Chemistry Bldg. 1213, 8:00am-11:50am M F ; 9:50am-11:50am T Th

Laboratory: Jones Chemistry Bldg. 2208, 8:00am-9:50am T Th

DEPARTMENT: CHEMISTRY

COURSE NUMBER: CHE 201-01 CREDIT HOURS: 5.0

- I. TITLE:** General Chemistry and Qualitative Analysis
- II. CATALOG DESCRIPTION:** A course in inorganic chemistry emphasizing atomic structure, stoichiometry, and thermochemistry, the gaseous state of matter, periodic classification, nuclear chemistry, and chemical bonding.
- III. PURPOSE:** To provide an introduction to the topics covered in the catalog description suitable for students intending to pursue further courses in chemistry. The coverage of the material will also be suitable for individuals intending to pursue careers in other scientific and technical areas.
- IV. COURSE OBJECTIVES:** Student will demonstrate sufficient understanding of the concepts outlined in Section V below to support/facilitate further studies in chemistry. Students will further develop problem solving, scientific thinking and reasoning abilities.
- V. CONTENT OUTLINE:** The topics of the following chapters of the text will be covered:

Chapter 1 Chemistry: The Central Science
Chapter 2 Atoms, Molecules, and Ions
Chapter 3 Stoichiometry: Ratios of Combination
Chapter 4 Reactions in Aqueous Solutions
Chapter 5 Thermochemistry
Chapter 6 Quantum Theory and the Electronic Structure of Atoms
Chapter 7 Electronic Configuration and the Periodic Table
Chapter 8 Chemical Bonding I: Basic Concepts
Chapter 9 Chemical Bonding II: Molecular Geometry and Bonding Theories
Chapter 11 Gases
Chapter 20 Nuclear Chemistry

VI. INSTRUCTIONAL ACTIVITIES: Lecture and discussion

VII. FIELD, CLINICAL, AND/OR LABORATORY EXPERIENCES: 2 hour laboratory

VIII. RESOURCES: Textbook, laboratory manual, and handouts

IX. GRADING PROCEDURES: Grades will be determined based on number of ‘points’ obtained on exams, homework, laboratories and the final exam. Four examinations will be given during the semester, which are worth 100 points each. These examinations will occur on July 12, 19, 26, and August 2. Note that these all occur on Tuesdays, material covered in each exam will include topics covered up to and including the Friday prior to the examination. Ten experiments will be performed worth 10 points each. Scores on homework assignments will be averaged and will be worth 100 points. The **final examination** (July 5 at 9:50 am) in this course is a **standardized examination**. This final is worth 100 points bringing the point total to 700 points.

Requirements for Letter Grades: Letter grades will be determined from the total number of points accumulated by a particular individual compared to the total points for the class. Grades will not be curved. Letter grades are assigned as follows:

90 – 100%	A
80-89%	B
70-79%	C
60-69%	D
<59%	F

X. ATTENDANCE POLICY: Attendance is required. If an examination or laboratory session is missed, there will be **no make up laboratory sessions or exams**. **Attendance to the July 5th lab check-in and safety lecture is mandatory for participation in laboratory sessions.**

XI. ACADEMIC HONESTY POLICY: Dishonesty of any kind will not be tolerated. A student observed cheating on an exam/quiz/homework/lab report will automatically receive a zero for that activity – no exceptions. A student guilty of a second offense will be given a failing grade for the course. These policies are consistent with the “Academic Dishonesty” statement on page 10 of the *2005-2007 MSU Undergraduate Bulletin*

XII. TEXT AND REFERENCES: *Chemistry*, Julia Burdge, 2nd ed., McGraw Hill
Laboratory Manual for Chemistry 201, McCreary

XIII. PREREQUISITES: High school chemistry or CHE 105

XIV. STATEMENT OF AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY: Murray State University does not discriminate on the basis of race, color, national origin, sex, religion, marital status, age, or disability in employment, admission, or the provision of services, educational programs and activities, and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with disabilities an equal opportunity to participate in all programs and activities. For information regarding nondiscrimination policies contact the Office of Equal Opportunity, 270-809-3155 (V) or (270) 809-3311 (TDD).

XV. DEPARTMENTAL POLICIES

Checking Supplies Out of Stockroom: Students are required to present their valid student identification card in order to check out supplies or equipment from the stockroom.

Exemption From the Laboratory Component of a Chemistry Course: The department policy does not provide for exemption from the laboratory component of this course.

Overloaded Classes: A student who does not attend, on time, the first laboratory meeting for check-in may be dropped from the course. Individuals who wish to add a particular course and who are on a waiting list will be advised to be at the first laboratory meeting, and will be allowed to add the class in place of students who are dropped, as space is available.

Checking Out From Laboratory: A student who is not present for laboratory check-out at the end of the semester, without a valid excuse, will be assessed a check-out/breakage fee of **\$25.00**. Students who drop the course at any time must arrange with the instructor to check-out of laboratory, or must attend the regular check-out, or the student will be assessed this fee.

CHE 201 LABORATORY SCHEDULE SUMMER 2011

July 5	Check-In, Densities of Liquids and Solids
July 7	Classes of Chemical Reactions
July 12	Empirical Formula and Atomic Weight
July 14	Preparation of Alum: Stoichiometry and Limiting Reagent
July 19	Paper Chromotography
July 21	Preparation of N ₂
July 26	Alkalline Earth Elements
July 28	A Nonmetal Family of the Periodic Table: Group VIIA
August 2	Qualitative Anions
August 4	Qualitative Anions cont./ Hess Law / Checkout

SAFETY

All students must read, understand, and abide by the safety rules and turn in a signed copy thereof on the first lab day. **Students must wear OSHA approved safety goggles, long pants, and enclosed shoes (no sandals) during the laboratory.** Students not wearing goggles and appropriate attire will be asked to leave the laboratory.