

**Forensic Chemistry Laboratory, CH203**  
**Master Syllabus**  
**Department of Chemistry, Washburn University**

**Purpose:** “This course is designed to introduce students to laboratory techniques used in forensic chemistry – emphasizing instrumentation, data acquisition and analysis. Except for Forensic Chemical Science majors, credit will not count toward a major or minor in chemistry.” The one credit for this course is from one three-hour laboratory period per week during a full 16 week Fall or Spring semester.

Because this course may be used to satisfy some of the General Educational Requirements for natural science and mathematics, development of the following three skills will also be emphasized:

- a) Reasoning mathematically and understanding numerical data: students will be exposed to fundamental mathematical skills both in lecture and laboratory. Students will be taught to use numerical data as a means of developing some of the fundamental laws of chemistry
- b) Processing information both in terms of synthesis and analysis: students will develop the skill of evaluating empirical evidence (both mathematical and nonmathematical) in terms of developing models that describe chemical phenomena. Students will learn to assess the validity and non-validity of the information in terms of consistency with the model. Where the information is consistent with the model further refinement of the model will be developed, and when the information is not consistent with the model the student will learn how to modify the model to bring it in congruence with the empirical evidence.
- c) Solving problems using the methods of analysis considering evidence, relevance, and validity. The student will develop the skill of analyzing both numerical and other data to draw conclusions concerning chemical and physical systems.

The three skills discussed above will be evaluated through graded laboratory activities and reports.

**Prerequisite:** CH151 Fundamentals of Chemistry (I)

**Pre- or Co-requisite:** CH103 Introductory Forensic Chemistry

**Text and Laboratory Manual:** TBD (To be determined)

**Grading:** The instructor for the course will state a specific grading scheme in supplemental syllabi.

**GRADING SCALE:**

A	90-100 %
B	80-89 %
C	70-79 %
D	60-69 %
F	0-59 %

A minimum passing grade is 60% of the total points.

Grade calculation = student points/total points x 100

**Attendance:** Attendance is required. If a university field trip or athletic event conflicts with a class time, it is the **student's responsibility** to make arrangements with the lecture or laboratory instructor to make up any missed material at the discretion of the instructor.

Laboratory participation is required for the successful completion of this course. If you are pregnant or become pregnant during this semester, you should consult with your physician to decide if it is advisable for you to continue with this chemistry course. You may obtain a list of chemicals used during labs from your instructor.

**LABORATORY SAFETY:** The following safety rules must be followed to ensure every student's safety. Special safety issues will be discussed for each experiment if necessary. Violation of any safety rules shall be dealt with at the discretion of the instructor or laboratory supervisor.

- Students must view the "Starting with Safety" video before working in the laboratory.
- Students must read, agree to, and sign the "Safety Regulations in the Laboratory" before working in the laboratory.
- In the unlikely even an accident occurs in the laboratory, the student(s) involved with the guidance of the laboratory instructor will submit a completed "Accident Report Form" to the Laboratory Supervisor.
- Students must wear safety goggles at all times in the lab.
- Students must wear shoes in the lab. Open-toed shoes, sandals, or shorts do not offer adequate protection against spilled chemicals or broken glass. Open-toed shoes or sandals are not allowed.
- Eating or drinking is not allowed in the lab.
- Chemicals should not be used for purposes other than those stated in the experiments.
- Wastes must be disposed of properly in accordance with instructions.