I. **Course Title**
   Introductory Organic and Biological Chemistry Laboratory

II. **Course Prefix/Number**
   CHEM 112L

III. **Credit Hours**
   1

IV. **Prerequisites**
   Chemistry 111, minimum grade C OR Chemistry 131, minimum grade C and Chemistry 132, minimum grade C

V. **Catalog Description**
   CHEM 112L is designed to complement the lecture course (CHEM 112) by giving the student practical experience with many of the concepts through laboratory experiments. One lab lecture, and two hours of laboratory per week.

VI. **Curricular Relationships**
   This course may be used for the BA in Biology, the BA in Biology (Secondary Education emphasis), the BS in Biology (Wildlife emphasis), the BA in Exercise Physiology and Leisure Science, pre-nursing, and pre-physical therapy.

VII. **Student Learning Outcomes**
   Students will demonstrate proficiency in basic laboratory skills involved in typical organic and biochemistry experiments, including simple tests for identification of unknown organic and biomolecules.

VIII. **Content Outline**
   1. Physical Properties of Organic Compounds
   2. Hydrocarbon Nomenclature and Isomers
   3. Physical and Chemical Properties of Hydrocarbons
   4. Alcohols and Phenols
   5. Aldehydes, Ketones, and Carboxylic Acids
   6. Organic Synthesis
   7. Polymers
8. Isolation of Milk Protein and Milk Sugar
9. Carbohydrates
10. Soaps and Detergents
11. Amino Acids and Proteins
12. Enzyme Kinetics

IX. Course Procedures/Policies/Grading Scale
Students are required to attend all laboratory sessions and the lab lecture. Lab reports must be turned in for each experiment. Pre-lab exercises and/or quizzes are given for each experiment. Two lab practical examinations are given in this course.

Normal grading is used for this course.
Grading Scale:  >90 = A; 80-89 = B; 70-79 = C; 60-69 = D; <60 = F

X. Required/Recommended Readings
An in-house laboratory manual is used for this course.

XI. Issues Unique to this Course
Corequisite of CHEM 112

XII. Additional Departmental Issues
None