**CHEM 231 Organic Chemistry**
**Credit Hours:** 4
**Scheduled hours per week**
Lecture: 3
Lab: 3
Other:

**Catalog Course Description**: An overview of organic chemistry with emphasis on biological applications for students in medical technology, agriculture, & nutrition. Nomenclature, structure, reactivity, and stereochemistry will be covered. (3 hr. lecture, 3 hr. lab) (Pre-requisite: CHEM 115/115L, CHEM 112/112L )

**Pre-requisites:** CHEM 115; CHEM 115L or CHEM 112; CHEM 112L

**Co-requisites:** CHEM 231L

**Course Learning Outcomes:**

- Provide an overview of organic chemistry structured around functional groups and their reactions
- Provide sufficient organic chemistry foundation so that students will be prepared for biochemistry as it relates to medical technology, nutrition, agriculture or forestry.

**Topics to be studied:**

- Students will be introduced to increasingly reactive functional group families.
- Topics will be related to chemical reactions observed in the fields of medical technology, nutrition, agriculture and/or forestry.

**Relationship of Course to Program or Discipline Learning Outcomes**:

| **Relationship of Course to Science Learning Outcomes:** | |
|---|---|
| Students will learn the process and reasoning behind the Scientific Method and be able to conduct experiments that meet the requirements of the model. | X |
| Students exhibit the basic safety-related rules and regulations of working in the lab. | X |
| Students be able to recount the basic safety tenants associated with a specific scientific discipline. | X |
| Students will become proficient at Science Writing. | X |
| Students will recognize and identify the applications of their specific discipline in the 'real world.' | X |
| Students will accurately recount important milestones in the history of scientific inquiry in their discipline. | X |
| 10/30/2017 | |

| **Relationship of Course to General Education Learning Outcomes:** |
|---|

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|---|---|
| **Composition and Rhetoric** Students illustrate a fundamental understanding of the best practices of communicating in English and meet the writing standards of their college or program-based communication requirements. | |
| **Science & Technology** Students successfully apply systematic methods of analysis to the natural and physical world, understand scientific knowledge as empirical, and refer to data as a basis for conclusions. | X |
| **Mathematics & Quantitative Skills** Students effectively use quantitative techniques and the practical application of numerical, symbolic, or spatial concepts. | X |
| **Society, Diversity, & Connections** Students demonstrate understanding of and a logical ability to successfully analyze human behavior, societal and political organization, or communication. | |
| **Human Inquiry & the Past**<br>Students interpret historical events or philosophical perspectives by identifying patterns, applying analytical reasoning, employing methods of critical inquiry, or expanding problem-solving skills. | |
| **The Arts & Creativity**<br>Students successfully articulate and apply methods and principles of critical and creative inquiry to the production or analysis of works of art. | |
| **10/30/2017** | |

**Special requirements of the course:**

**Additional information:**

**Prepared by**: Who created/edited this syllabus?

**Date**: Date the syllabus was created/edited.