

MESABI RANGE COMMUNITY & TECHNICAL COLLEGE – VIRGINIA/EVELETH

Course Outline

Course Title: Organic Chemistry I
Semester Course Prefix and Number: CHEM 2512
Old Quarter Course Prefix and Number: CHEM 210 & 211
Submitted By: Gary Norton
Approval Date:
Revision Date: Feb. 2002

Number of Credits: 5
Semester(s) Offered:
Negotiated Class Size:
Number of Lecture Credits: 4
Number of Lab Credits: 1
Number of Lab Hours: 3
Number of Studio/Demonstration/Internship Credits:

Course Purpose Code:

- 0 – Developmental Courses
- 1 – Non-transferable, General Education
- 2 – Technical course related to career programs
- 3 – College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)
- 4 – Other college course not considered a part of general education (MNTC) e.g. computer science, health, physical education
- 5 – Course which is intended to fulfill the Minnesota Transfer Curriculum (MNTC) requirements.
- 9 – Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

Catalog Description:

This course in chemistry is a study of aliphatic and aromatic hydrocarbons with emphasis on reaction mechanisms and the characteristics of numerous functional groups.

Prerequisites and/or recommended entry skills/knowledge:

Course Prerequisite(s): CHEM 1522 (or previous course CHEM 111 and 112)
Reading Prerequisite: None
Composition Prerequisite: None
Mathematics Prerequisite: None

Career Programs and Transfer Majors Accessing this Course:

Chemistry, chemical engineering, professional health majors

Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable: Notes: No more than two goals may be met by any one course. (Curriculum Committee review and the Chief Academic Officer's approval are required).

- 0. None
- 1. Communications
- 2. Critical Thinking
- 3. Natural Sciences
- 4. Mathematical/Logical Reasoning
- 5. History and the Social and Behavioral Sciences
- 6. The Humanities and Fine Arts
- 7. Human Diversity
- 8. Global Perspectives
- 9. Ethical and Civic Responsibility
- 10. People and the Environment

Learning outcomes, including any relevant competencies listed in the Minnesota Transfer Curriculum:

The student will:

- Have certain fundamental concepts, facts, and trends underlying all of organic chemistry and biochemistry
- Be acquainted with several instruments common in organic chemistry
- Be acquainted with scientific literature and its use
- Be able to apply structural organic theory and reactivity principles to biologically important molecules

Student assessment methods:

Nine exams per semester

Use of instructional technology (includes software, interactive video and other instructional technologies):

Outline of the major course content:

Topics include Alkanes, Alkenes, Acids-Bases, Stereoelectrophilic chemistry, Nucleophilic Substitution and eliminations, radical reactions, addition reactions, Alcohols, ethers, and oxidation-reduction.

Additional special information (special fees, directives on hazardous materials, etc.)

Transfer Information: (Please list colleges/majors that accept this course in transfer.)

Approvals:

Body	Representative Signatures	Date
Curriculum Committee		
Faculty Association		
Meet and Confer		
Chief Academic Officer		

Distribution: Original – Administrative Office, Library, Learning Center, Records, Student Services, Curriculum Committee Chair