

III. Statement of Course Need

- A. This is the second course in a two-semester sequence (Organic Chemistry I and II) that may be required by some transfer institutions.
- B. An Organic Chemistry II Laboratory course is required in most programs. Students wishing to fulfill a RVCC program should take CHEM 212 which includes the lab component, or the lab must be taken at a transfer institution.
- C. This course generally transfers as a program requirement and/or a free elective dependent on the transfer institution.

IV. Place of Course in College Curriculum

- A. Free Elective
- B. This course does not meet any RVCC program requirements.
- C. To see course transferability: a) for New Jersey schools, go to the NJ Transfer website, www.njtransfer.org; b) for all other colleges and universities, go to the individual websites.

V. Outline of Course Content

- A. Radical Reactions
- B. Organic Synthesis
- C. Alcohols and Phenols
- D. Ethers and Epoxides
- E. Conjugated Dienes
- F. Aromatic Compounds
- G. Electronic Aromatic Substitution and Nucleophilic Aromatic Substitution Reactions
- H. Aldehydes and Ketones
- I. Carboxylic Acids
- J. Carboxylic Acid Derivatives (Acyl Halides, Acid Anhydrides, Esters, Amides, and Nitriles)
- K. Carbonyl Alpha-Substitution and Condensation Reactions
- L. Amines
- M. Organometallic Reagents

VI. General Education and Course Learning Outcomes

A. Course Learning Outcomes:

At the completion of the course, students will be able to:

1. Demonstrate a knowledge of and the ability to critically analyze the principles of organic chemistry. (GE-3*)
2. Use the knowledge of reactivity of functional groups to predict the products of organic reactions and design rational syntheses of selected compounds.
3. Draw detailed arrow-pushing mechanisms for organic chemical reactions.

B. Assessment Instruments

1. Exams (required)
2. Quizzes
3. Pre-lecture reading quizzes
4. Informal interactive games
5. Discussion questions

VII. Grade Determinants

- A. Exams (required)
- B. Quizzes

Primary format, modes, and methods for teaching and learning that may be used in the course:

- A. Lecture/discussion
- B. Group work

VIII. Texts and Materials

- A. Klein, David R, *Organic Chemistry*, latest edition (print or electronic), Wiley.
- B. WileyPLUS online subscription
- C. Molecular model kit

Please Note: The course outline is intended only as a guide to course content and resources. Do not purchase textbooks based on this outline. The RVCC Bookstore is the sole resource for the most up-to-date information about textbooks.

IX. Resources: None.

X. Check One: Honors Course Honors Options N/A