

Date of Previous Revision: June 1980

Date of Current Revision: June 15, 2002

C: CHEM 421

D: Organic Chemistry – Part II

<p style="text-align: right;">¹H and ¹³C –</p> <p>N.M.R., mass, I.R., and U.V. spectroscopies and their use in solving combined structural problems. The course will then survey the reactivity and properties of functional groups not covered in Chemistry 321. These include Conjugated Unsaturated Systems, Aromatics, Phenols and Ary Halides, Aldehydes and Ketones, Carboxylic Acids, and Amines. The course ends with an extensive review of the nomenclature, properties, and reactivity of compounds of biological interest including Amino Acids and Proteins, Carbohydrates, and Lipids.</p>							
<p>G: Allocation of Contact Hours to Type of Instruction / Learning Settings</p> <p>Primary Methods of Instructional Delivery and/or Learning Settings:</p> <p>Lecture/Laboratory</p> <p>Number of Contact Hours: (per week / semester for each descriptor)</p> <p>Lecture: 4 hours Laboratory: 3 hours</p> <p>Number of Weeks per Semester: 15</p>	<p>H: Course Prerequisites:</p> <p>CHEM 321 (C or better)</p>						
	<p>I: Course Corequisites:</p>						
	<p>J: Course for which this Course is a Prerequisite</p> <p>None</p>						
	<p>K: Maximum Class Size:</p> <p>36</p>						
<p>L: PLEASE INDICATE:</p> <table border="1"><tr><td><input type="checkbox"/></td><td>Non-Credit</td></tr><tr><td><input type="checkbox"/></td><td>College Credit Non-Transfer</td></tr><tr><td><input checked="" type="checkbox"/></td><td>College Credit Transfer:</td></tr></table> <p>SEE BC TRANSFER GUIDE FOR TRANSFER DETAILS (www.bccat.bc.ca)</p>		<input type="checkbox"/>	Non-Credit	<input type="checkbox"/>	College Credit Non-Transfer	<input checked="" type="checkbox"/>	College Credit Transfer:
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UBC 203+204 (with CHEM 321)

SFU SFU CHEM 282 (2) & SFU CHEM 286 (2) & SFU CHEM 1

U.Vic UVIC CHEM 232 (1.5)

M:

Aldehydes and Ketones and Addition Reactions to the Carbonyl Group: Nomenclature, Physical Properties, Synthesis of Aldehydes and Ketones, Nucleophilic Addition to Carbonyl Group, Addition of Water, and Alcohols, Hemiacetal and Hemiketal Formation, Acetal and Ketal Formation, Ammonia Derivatives, Wolff-Kishner Reduction, Wittig Reaction, Reformatsky Reaction, Baeyer Villiger Oxidation of Aldehydes and Ketones.

Aldol Reaction, Reactions at the

Q: Means of Assessment

The final grade assigned for the course will be based upon the following components:

1. Lecture Material (70%)

Two or three in-class tests will be given during the semester (30%)

A final exam covering the entire semester's work will be given during the final examination period (30%)

Any or all of the following evaluations, at the discretion of the instructor: problem assignments, quizzes, class participation [5% maximum] (10% in total)

2. Laboratory 30%

Written reports and pre-labs will be collected for each experiment and will be graded. These reports will be complete reports, to be handed in in the laboratory notebook. In addition, some written quizzes based on laboratory material will be evaluated (15%).

Qualitative/Quantitative results of experiments performed on unknown samples will be graded (5%).

Final Lab Exam – Practical (5%), - Written (5%).

R: Prior Learning Assessment and Recognition: specify whether course is open for PLAR

NO

Course Designer(s)

Education Council / Curriculum Committee Representative

Dean / Director

Registrar