

<b>Course ID:</b>	<b>Course Title:</b>	<b>Winter 2021</b>
<b>CHE 253</b>	<b>Organic Chemistry II</b>	<b>Prerequisite:</b>
		<b>Credits: 3</b>

Class Information		Instructor Information		Important Dates	
<b>Days:</b>	W/F	<b>Instructor:</b>	Liza Abraham PhD Jennifer Neufeld MSc	<b>First day of classes:</b>	Mon., January 11
<b>Time:</b>	11:45-1:00	<b>Email:</b>	<a href="mailto:lbraham@ambrose.edu">lbraham@ambrose.edu</a> Jennifer.Neufeld@ambrose.edu	<b>Last day to add/drop, or change to audit:</b>	Sun, Jan 24
<b>Room:</b>		<b>Phone:</b>	403-410-2000 ext.6921	<b>Last day to request a revised exam:</b>	Mon, March 8
<b>Lab/ Tutorial:</b>	3 of hrs/wk	<b>Office:</b>	A2160	<b>Last day to withdraw from a course:</b>	Fri, March 19
	M 3:330-6:30 pm	<b>Office Hours:</b>	Open-door Policy	<b>Last day to apply for coursework extension:</b>	Mon, March 29
<b>Final Exam:</b>	Apr 19: 9 AM-12:00 PM			<b>Last day of classes:</b>	F, April 16

### Course Description

A continuation of Chemistry 251, this course looks at reactions of common functional groups. Topics include electrophilic addition reactions, aromaticity, electrophilic aromatic substitution reactions, radical chemistry, nucleophilic addition reactions, nucleophilic substitution reactions, enolate chemistry, and synthesis. Instruction will consist of lecture, labs, and tutorials

### Textbook

Organic Chemistry: David Klein 3rd Edition

### Attendance:

- Class participation is extremely important to your learning in this course. If you miss any class, please make sure to complete the notes from your peers.
- A mark of less than 50% in the laboratory component and/or on the weighted average of the midterm and final examinations will result in a final grade of no greater than D. Completion, and submission of reports for fewer than three laboratory experiments will result in a final grade of no greater than D. A grade of D does not satisfy the pre-requisite requirements for further chemistry courses or admission to programs in Biology.
- You are not allowed to use the phone as your calculator; you must use a calculator to do all your work.
- In respect to the professor and to your fellow students, we ask that you:
  - a) Turn your phone off during class and that you don't use it for texting during lecture or lab;
  - b) Not have conversations with the people beside you during the lecture – it is very distracting to the people around you;
  - c) Use your laptops for lecture material and assignments only – that you are not using the internet or Facebook during class time;
  - d) Arrive to lecture, lab and tutorial on time; you will not be permitted in the lab if you miss the pre-lab talk;
  - e) Don't listen to music in class or lab. These will maximize the learning experience for you and your fellow students (and will keep your professor in a good mood).

## Course Schedule (tentative)

Week	Lecture	Tutorial	Lab	WileyPlus Reading	WileyPlus Assignment
Jan 10	Aromaticity Electrophilic Aromatic Substitution	No Tutorial	No Lab	Chp.17.01-17.06	Assign. 1_Chap.17
Jan 17	Electrophilic Aromatic Substitution	Tut. 1/ Quiz 1	No Lab	Chp.18.01-18.16	Assign.2_Chap.18
Jan 24	Nucleophilic Acyl Addition	No Tutorial	Lab 1: Green Nucleophilic Aryl Substitution Reaction ( $S_NAr$ )	Chp.19.01, 03-10, 12	
Jan 31	Nucleophilic Acyl Addition	Tut. 2/ Quiz 2	No Lab		Assign.3_Chap.19
Feb 7	Nucleophilic Acyl Substitution	No Tutorial	Lab 2: Isolation of a Renewable Starting material: Hydrodistillation of Cinnamon oil from Cinnamon	Chp.20.01-14	
Feb 14		No Tutorial	No Lab		Assign.4_Chap.20
Feb 21	Nucleophilic Acyl Substitution		Lab 3: Reduction of Cinnamaldehyde using sodium borohydride and purification of cinnamyl alcohol using microscale column chromatography		
Feb 28	Enolate Chemistry	Tut. 3/Quiz 3		Chp.21.01-07	
Mar 7	Enolate Chemistry Term Test March 3		Lab 4: Aldol reaction of cinnamaldehyde with acetone – a demonstration of synthesis of a sunscreen		Assign.5_Chap.21
Mar 14	Electrophilic Addition Reactions	Tut. 4/Quiz4		Chp.8.01, 8.04-8.14	
Mar 21	Electrophilic Addition Reactions		Lab 5: Assessment of the Antimicrobial Activity of Cinnamaldehyde and its Derivatives - A Drug Discovery Lab (Two weeks lab)		Assign.6_Chap.8
Mar 28	Radical Chemistry Wednesday March 31	Tut. 5/Quiz 5	No Lab	Chp.10.01-10.11	

	Ambrose Research Conference				
Ap 4	Radical Chemistry Synthesis Project and Music Video Project Due Ap 7	Tut.6/Quiz 6	No Lab		Assign.7 Chap.10
Ap 11	Radical Chemistry Final Exam Review				

### Requirements:

**LABORATORY SAFETY COURSE:** All students registered in CHE 253 are expected to take the WHMIS 2015 quiz and pass with a percentage of at least 80 before engaging in lab activities. Students have not passed a version of this quiz by the time of their first lab will not be allowed to partake in the lab activity and will take a zero for anything from that lab that is marked. Here is the link to the Moodle site; <https://moodle.ambrose.edu/course/view.php?id=2576>

**LAB COMPONENT (25%):** There are five labs to perform; each lab is worth 5%. Each lab requires you to submit a short paper of maximum four pages.

**TUTORIAL Quizzes (7.5%):** Labs and Tutorials run on alternating weeks. During each tutorial, students work collaboratively in groups of 3 or 4 on a series of problems before writing an individual quiz. There will be six to seven tutorial quizzes.

**WileyPlus ASSIGNMENTS (7.5%):** Every chapter will have an assignment from the Wiley. You can attempt each question three times. You can review scores and answer feedback after each attempt. You can access the assignment later for review purpose.

**SYNTHESIS PROJECT (5%):** There will be a synthesis project to completed.

**ORGANIC CHEMISTRY MUSIC VIDEO (5%):** Chemistry music video ([https://www.youtube.com/watch?v=HQi\\_150m6NQ](https://www.youtube.com/watch?v=HQi_150m6NQ)); You must make concise and informative music videos about organic chemistry. You may work either individually or in groups of up to four students. You will be required to post your video on Simply Science Ambrose youtube.com for everyone to see. The grading of your work will be based on the effectiveness of the incorporation of organic chemistry concepts as well as the overall entertainment value.

### Grade Summary:

The available letters for course grades are as follows:

<u>Letter Grade</u>	<u>Description</u>
A+	Excellent
A	
A-	
B+	Good
B	
B-	
C+	Satisfactory
C	
C-	
D+	Minimal Pass
D	
F	Failure

In determining the overall grade in the course the following weights will be used:

Laboratory Experiments	25%
Tutorial Quizzes	7.5%
Assignments	7.5 %

Term Test	15%
Synthesis Project	5%
Music Video Project	5%
Final Examination	35%

<b>A+</b>	<b>A</b>	<b>A-</b>	<b>B+</b>	<b>B</b>	<b>B-</b>
<b>95% - 100%</b>	<b>87% - 94.99%</b>	<b>82% - 86.99%</b>	<b>77% - 81.99%</b>	<b>72% - 76.99%</b>	<b>66% - 71.99%</b>
<b>C+</b>	<b>C</b>	<b>C-</b>	<b>D+</b>	<b>D</b>	<b>F</b>
<b>62% - 65.99%</b>	<b>58% - 61.99%</b>	<b>54% - 57.99%</b>	<b>50% - 53.99%</b>	<b>45% - 49.99%</b>	<b>&lt; 44.99%</b>

Because of the nature of the Alpha 4.00 system, there can be no uniform University-wide conversion scale. The relationship between raw scores (e.g. percentages) and the resultant letter grade will depend on the nature of the course and the instructor's assessment of the level of each class, compared to similar classes taught previously.

Please note that final grades will be available on student registration system. Printed grade sheets are not mailed out.

## Ambrose University Academic Policies:

### Communication

All students have received an Ambrose e-mail account upon registration. It is the student's responsibility to check this account regularly as the Ambrose email system will be the professor's instrument for notifying students of important matters (cancelled class sessions, extensions, requested appointments, etc.) between class sessions. If students do not wish to use their Ambrose accounts, they will need to forward all messages from the Ambrose account to another personal account.

### Registration

During the **Registration Revision Period** students may enter a course without permission, change the designation of any class from credit to audit and /or voluntary withdraw from a course without financial or academic penalty or record. Courses should be added or dropped on the student portal by the deadline date; please consult the List of Important Dates. After that date, the original status remains and the student is responsible for related fees.

Students intending to withdraw from a course after the Registration Revision Period must apply to the Office of the Registrar by submitting a "Request to Withdraw from a Course" form or by sending an email to the Registrar's Office by the **Withdrawal Deadline**; please consult the List of Important Dates on the my.ambrose.edu website. Students will not receive a tuition refund for courses from which they withdraw after the Registration Revision period. A grade of "W" will appear on their transcript.

Students wishing to withdraw from a course, but who fail to do so by the applicable date, will receive the grade earned in accordance with the course syllabus. A student obliged to withdraw from a course after the Withdrawal Deadline because of health or other reasons may apply to the Registrar for special consideration.

### Exam Scheduling

Students, who find a conflict in their exam schedule must submit a Revised Examination Request form to the Registrar's Office by the deadline date; please consult the List of Important Dates. Requests will be considered for the following reasons only: 1) the scheduled final examination slot conflicts with another exam; 2) the student has three final exams within three consecutive exam time blocks; 3) the scheduled final exam slot conflicts with an exam at another institution; 4) extenuating circumstances. Travel is not considered a valid excuse for re-scheduling or missing a final exam.

### Electronic Etiquette

Students are expected to treat their instructor, guest speakers, and fellow students with respect. It is disruptive to the learning goals of a course or seminar and disrespectful to fellow students and the instructor to use electronics for purposes unrelated to the course during a class session. Turn off all cell phones and other electronic devices during class. Laptops should be used for class-related purposes only. Do not use iPods, MP3 players, or headphones. Do not text, read, or send personal emails, go on Facebook or other social networks, search the internet, or play computer games during class. Some professors will not allow the use of any electronic devices in class. The professor has the right to disallow the student to use a

laptop in future lectures and/or to ask a student to withdraw from the session if s/he does not comply with this policy. Repeat offenders will be directed to the Dean. If you are expecting communication due to an emergency, please speak with the professor before the class begins.

### Academic Policies

It is the responsibility of all students to become familiar with and adhere to academic policies as stated in the Academic Calendar. Personal information (information about an individual that may be used to identify that individual) may be required as part of taking this class. Any information collected will only be used and disclosed for the purpose for which the collection was intended. For further information contact the Privacy Compliance Officer at [privacy@ambrose.edu](mailto:privacy@ambrose.edu).

### Extensions

Although extensions to coursework in the semester are at the discretion of the instructor, students may not turn in coursework for evaluation after the last day of the scheduled final examination period unless they have received permission for a course Extension from the Registrar's Office. Requests for course extensions or alternative examination time must be submitted to the Registrar's Office by the deadline date; please consult the List of Important Dates. Course extensions are only granted for serious issues that arise "due to circumstances beyond the student's control."

### Appeal of Grade

An appeal for change of grade on any course work must be made to the course instructor within one week of receiving notification of the grade. An appeal for change of final grade must be submitted to the Registrar's Office in writing and providing the basis for appeal within 30 days of receiving notification of the final grade, providing the basis for appeal. A review fee of \$50.00 must accompany the appeal. If the appeal is sustained, the fee will be refunded.

### Academic Integrity

We are committed to fostering personal integrity and will not overlook breaches of integrity such as plagiarism and cheating. Academic dishonesty is taken seriously at Ambrose University as it undermines our academic standards and affects the integrity of each member of our learning community. Any attempt to obtain credit for academic work through fraudulent, deceptive, or dishonest means is academic dishonesty. Plagiarism involves presenting someone else's ideas, words, or work as one's own. Plagiarism is fraud and theft, but plagiarism can also occur by accident when a student fails or forgets to acknowledge to another person's ideas or words. Plagiarism and cheating can result in a failing grade for an assignment, for the course, or immediate dismissal from the university. Students are expected to be familiar with the policies in the current Academic Calendar that deal with plagiarism, cheating, and the penalties and procedures for dealing with these matters. All cases of academic dishonesty are reported to the Academic Dean and become part of the student's permanent record.

**Note:** Students are strongly advised to retain this syllabus for their records.