|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | **[family_tree.jpg](http://www.bing.com/images/search?q=Trees+images#focal=cb445e6326840d15328984d731b34f22&furl=http://www.cptcook.com/img/family_tree.jpg)Welcome!** This course continues the study of functional groups such as carboxylic acids and their derivatives, carbonyls, amines, and phenols. The emphasis is again on reaction mechanisms, structure determination using nuclear magnetic resonance and infrared spectroscopy, synthesis, and applications. A major part of this course is devoted to the study of biochemistry.  **Who should take this course?** Those students who are preparing for scientific and medical fields usually need a full year of organic chemistry. It is both challenging and demanding; you should anticipate attending every class and spending **\*8-10 hours a week** for study. | | **How to succeed in this class**  **Show up**: School policy states that students missing two weeks’ worth of class will be dropped. If you are absent, you must catch up on what you have missed or make arrangements beforehand; class information will not be repeated. Absence is not a valid excuse for missing assignments.  **Be engaged:** Focus on the activities in class and avoid distractions like mobile devices. Ask questions, read, practice, and be proactive! All cell phones should be put away unless prior approval is received.  **Write (don’t type!);** Research shows that students who take the time to re-write notes and work calculations and problems by hand perform statistically much higher than those students who do not. Communicate: I’m happy to talk with you about your progress in the class. Please email me or let me know if you have any questions or concerns. | | **Quizzes:**  A short quiz will be given every two-ish weeks. These will begin at the very start of class and will last only 10-15minutes. If you’re late, you will not receive extra time. Please be prepared. One quiz will be dropped at the end of the semester.  **Exams:**  Exams will be approximately 3 chapters and will be a combination of written calculations, short answers, and/or multiple choice. NO MAKEUP EXAMS will be given. One exam will be dropped at the end of the semester. | | **Important dates**  **Exam 1 Wed 2/13**  **Exam 2 Wed 3/13**  **Exam 3 Wed 4/17**  **Exam 4 Monday May 13th 10:15am-12:15pm**  **1/25 Last day to drop without a W**  **4/19 Last day to drop with a W**  **5/13-17 Final Exam Week (lecture courses)**  **5/17 Graduation 10am** | | **ON CAMPUS RESOURCES**  **EAC (Administration Building):** The Educational Assistance Center provides testing and accommodations for students. If you have already established accommodations with the EAC, let me know as soon as possible. If you think you might benefit from the EAC’s services, I’d be happy to go with you and introduce you.  **Tutoring Center (LRC 1st floor)**: All VC students are eligible for free tutoring at the Tutoring Center. You can make an appointment or drop-in for help .  **STEM HARBOR**: Science students can get help from a variety of faculty in Sci 223. Schedule will be posted on CANVAS.  Please let me know if you have any additional concerns or need EAC accomodations. | | |  | | --- | | **Contact Info**Instructor: Michelle DavidsonEmail: [mdavidson@vcccd.edu](mailto:mdavidson@vcccd.edu)\*Emails returned M-Th within 24hrs.\*Weekend emails returned MondayWebsite: [www.michelledavidsonchemistry.weebly.com](http://www.michelledavidsonchemistry.weebly.com)Office: Sci 334Drop-in HoursMon 12:50 – 1:50pmTues/Thurs 8 – 8:30am (Sci 216)Tues/Thurs 12:50-1:50pmWed 12:50 – 1:50pmThurs 12:50 – 1:50pm | | **materials**Scientific Calculator(No cellphones or graphing calculators allowed) | | **textbook** Organic Chemistry 3rd Edition by David Klein  &  Organic Chemistry 3rd Edition Student Study Guide and Solutions Manual by David Klein  Publisher: Wiley | | **GRADING**  Please Check canvas often  Quizzes 25%  Exams 75%  A 90.000% or higher  B 80.000% - 89.999%  C 70.000% - 79.999%  D 60.000% - 69.999%  F 59.999% or lower  \*Please do not ask for grades to be rounded. One quiz & one exam are already dropped! | | **Student learning outcomes** CSLO-1 Categorize, arrange, and assemble structures of aromatics, ketones, aldehydes, carboxylic acids, esters, amines, and biochemical amino acids using IUPAC and common systems of nomenclature, in addition to continued ChemV12A knowledge.  CSLO-2 Examine, evaluate, and formulate mechanisms for the reactions of aromatics, ketones, aldehydes, carboxylic acids, esters, and amines given reactants and reagents; in addition to continued ChemV12A knowledge.  CSLO-3 Ability to propose the multi-step synthesis for common functional groups using all learned reagents from ChemV12 and ChemV12B.  CSLO-4 Evaluate spectra (infrared, msas spec, H1 NMR, C13 NMR) to formulate structures for alkanes, alkenes, alkynes, alkyl halides, cyclics, alcohols, ethers, ketones, aldehydes, carboxylic acids, esters, amines, and aromatics.  (\*Course Objectives online) | |

**The Topic Order We Will Follow…**

(lecture guides will be provided; if we don’t cover a particular topic in the lecture guide, then you don’t need to worry about it!)

Recommended Problems will be sent out via canvas announcements and will be updated periodically on our class website. Homework notebooks will be collected for 5% extra credit per exam.

Chapter 16 Conjugated Pi Systems (16.1 – 16.7)

Chapter 17 Aromatic Compounds

Chapter 18 Aromatic Substitution Reactions

Chapter 19 Aldehydes and Ketones

Chapter 20 Carboxylic Acids and their Derivatives

Chapter 21 Alpha Carbon Chemistry: Enols and Enolates

Chapter 23 Introduction to Organometallic Compounds

Chapter 9 Alkynes

Chapter 12 Alcohols & Phenols

\*Chapter 25 – must learn the 3 letter and 1 letter code for the 20 Essential Amino Acids (provided structure)