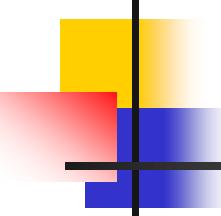


# CHEMISTRY 2500

Topic #0: Introduction and Administrative Issues

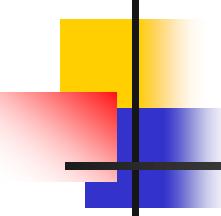
Spring 2020

Dr. Susan Findlay



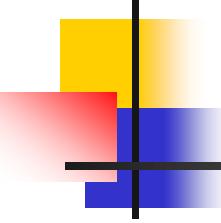
# Welcome to Chemistry 2500

- You will need:
  - *Organic Chemistry Mechanistic Patterns* by Ogilvie *et al*
  - *The Organic Chem Lab Survival Manual (7<sup>th</sup> ed.)* by J.W. Zubrick
  - *Lab Manual* (will be posted online for you to print)
  - *Hardcover bound notebook* (for lab)
  - *Sharpie marker* (for lab)
  - *Lab Coat* (University Bookstore)
  - *Safety Glasses* (University Bookstore or CBC Club)
  - *Molecular Model Kit* (University Bookstore or CBC Club)
  - *Calculator* (WITHOUT wireless communication capability)
- Websites you'll need to access:
  - <http://scholar.ulethbridge.ca/susanfindlay/book/chem-2500>  
(lecture notes, practice questions, practice tests, etc.)
  - <http://www.saplinglearning.ca> (online assignments)
  - <https://moodle.uleth.ca> (lab manual, instructions for reports, etc.)



# Contact Information

- If you have any questions outside of class/lab, you can reach me:
  - Via email ([susan.lait@uleth.ca](mailto:susan.lait@uleth.ca)) – the easiest way to get hold of me
  - In my office (SA8458). I am available most afternoons, and I can make appointments for morning meetings.
- What's Chemistry 2500 about?
  - CHEM 2500 is the first half of a full year course in organic chemistry. The second half of the course, CHEM 2600, should ideally be taken within one year of completing CHEM 2500. The goal of these courses is to introduce you to organic chemistry. We will study the properties and reactivity of organic molecules. CHEM 2500 also serves to prepare you for biochemistry.
- The prerequisite for CHEM 2500 is CHEM 2000. Concepts from this course which will be used in CHEM 2500 include molecular orbital theory, acid-base theory and reactivity of organic compounds.



# Grade Composition

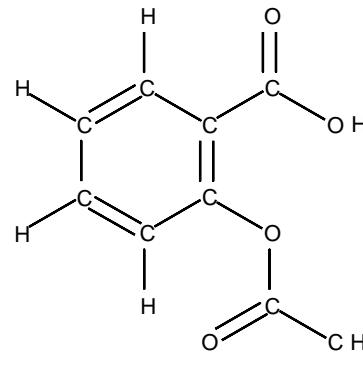
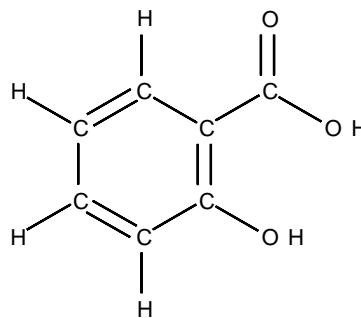
|                                 | <b>Dates</b>  | <b>Method 1</b>       | <b>Method 2</b> |
|---------------------------------|---|-----------------------|-----------------|
| Laboratory                      | <i>see laboratory schedule</i>  | 30%                   | 30%             |
| Assignments                     | weekly online assignments   | 10%                   | 10%             |
| Midterm Tests<br>(2 hours each) | Thursdays at 6:00pm in PE 261:<br>Feb. 13 <sup>th</sup> and Mar. 12 <sup>th</sup> | 30%<br>(2 @ 15% each) | 0%              |
| Final Exam                      | TBA (scheduled by ROSS after<br>Add/Drop)   | 30%                   | 60%             |
| <b>Total</b>                    |   | 100%                  | 100%            |

**YOU MUST PASS BOTH THE LAB (15/30) AND LECTURE (35/70)**  
**PORTIONS OF THE COURSE SEPARATELY**  
**IN ORDER TO RECEIVE ANY GRADE OTHER THAN 'F'.**

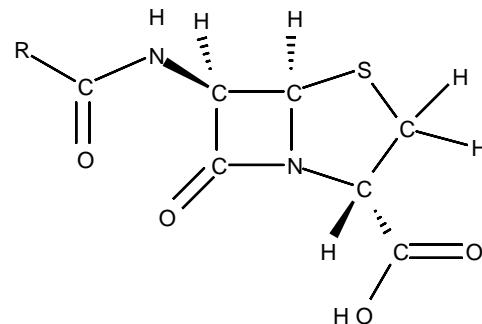
# Why Study Organic Chemistry?

- All biological systems consist of organic molecules (along with water and a few inorganic molecules and ions). As such, an understanding of organic chemistry is key to understanding in a wide variety of other fields including:

- Medicine:



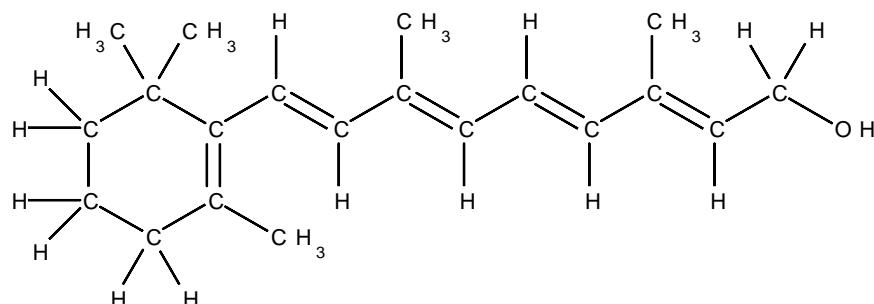
**Salicylic acid (wart remover)  $\neq$  Acetylsalicylic acid (aspirin)**



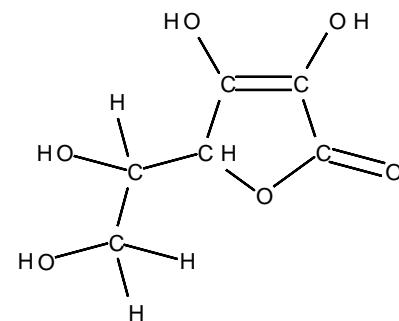
**penicillin family of antibiotics  
(R varies)**

# Why Study Organic Chemistry?

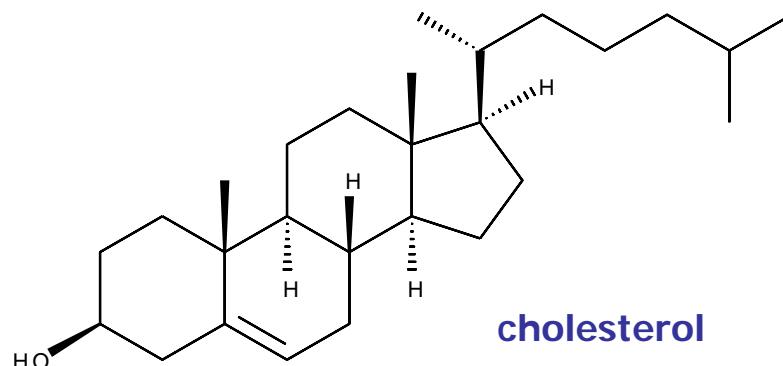
- Nutrition:



**vitamin A<sub>1</sub>**



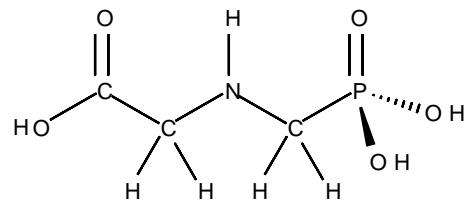
**vitamin C**



**cholesterol**

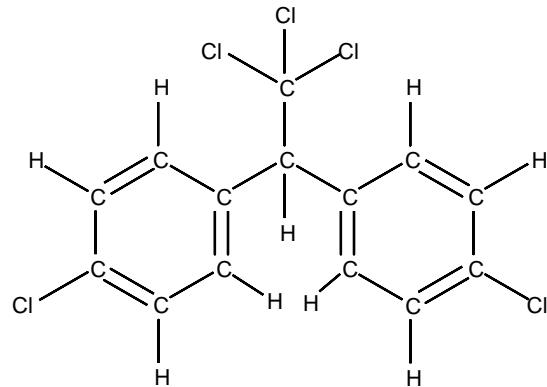
# Why Study Organic Chemistry?

- Agriculture:

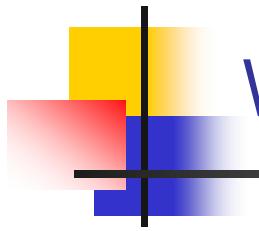


glyphosate (“Roundup”)

- Environmental science

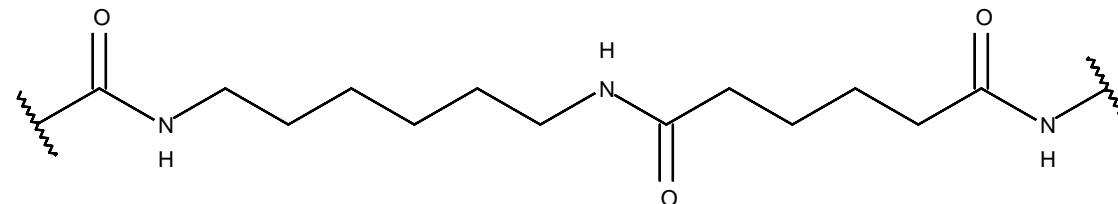


para-dichlorodiphenyltrichloroethane (DDT)

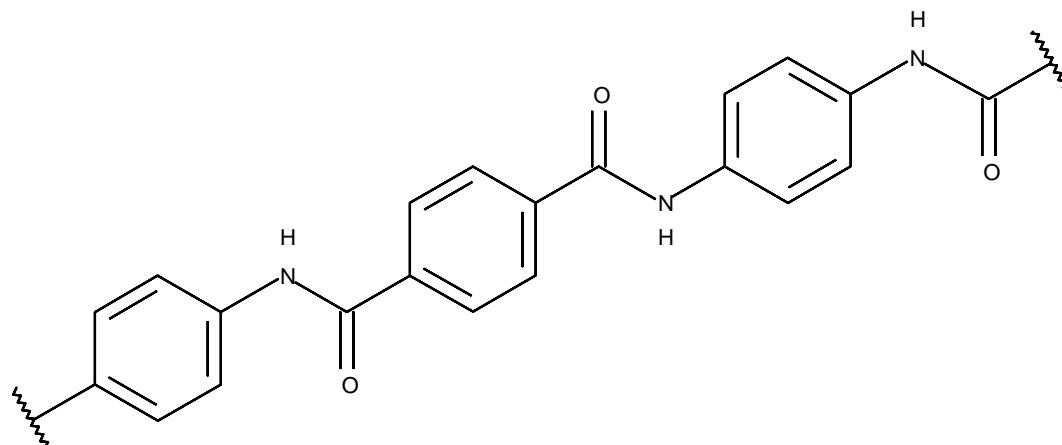


# Why Study Organic Chemistry?

- Materials Science:



Nylon



Kevlar