

Course Title: Survey of Organic and Biorganic Chemistry
CH 24530

Term: Summer 2000

Location: Tripler Hospital

Time: 17:30 - 19:30

Instructor: Ada Tomosada

Communications: telephone 7349424
pager 680 2802 (Phone # 254)

Textbook: Principles and Applications of Inorganic, Organic & Biological
Chemistry
Caret, Denniston, and Topping, 1997

Course Description:

This is an introductory course of organic chemistry and biochemistry. It will begin with nomenclature and identification of organic compounds and their functional groups, and move into some of the important aspects of biochemistry for students. This is a very **basic** course designed for students with very **little** chemistry or science background. The course lecture along with laboratory work is a step by step procedure in introducing the subjects concepts to the student who has little or no chemistry background.

Course Objectives:

This course is designed to **familiarize** you with the terminology and concepts of organic and biochemistry that may be used in practical fieldwork. The course will cover chapters 11 to 24 of the textbook.

Course Requirements:

Concurrent enrollment in CH 25430L is required by Chaminade University, and completion of CH 103 is recommended.

Only registered students will be allowed to attend classes.

Grading:

Two exams will be given. One after chapters 11 - 14 is covered and the next after chapters 15 - 18. The final exam will cover the rest of the material.

Grading breakdown is as follows: 60% exams, 30% final exam, 10% attendance and attitude. Letter grades will be assigned according to a class curve.

Tentative Class Timetable:

Week 1	Chapter 11 Introduction to Organic Chemistry Chapter 12 Unsaturated Hydrocarbons
Week 2	Chapter 13 Alcohol, Phenols, Thiols and Ethers Chapter 14 aldehydes and Ketones
Week 3	Exam 1 Chapter 15 Carbohydrates
Week 4	Chapter 16 Carboxylic Acids and Derivatives Chapter 17 Lipids and Their Functions
Week 5	Chapter 18 Amines and Amides Exam 2
Week 6	Chapter 19 Protein Structure and Function
Week 7	Chapter 20 Enzymes
Week 8	Chapter 21 Carbohydrate Metabolism
Week 9	Chapter 22 Aerobic Respiration and Energy Production
Week 10	Chapter 23 Fatty Acid Metabolism
Week 11	Chapter 24 Molecular Genetics Final Exam

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Course Title: Survey of Organic **and** Biorganic Chemistry Lab
CH 25430L

Term: Summer 2000

Time: **Saturday** 800 - 1210

Location: Chaminade Main Campus Henry Hall

Instructor: Ada Tomosada

Lab Manual:

There is no lab manual. Handouts will be provided **by** the instructor.

Objectives:

Together with Chemistry 254 lecture section, the lab **section** is **designed** to enhance your understanding of organic and biorganic concepts. **Experimental** work brings a practical understanding of organic chemistry and hands-on **experience** in **different** techniques. You will be introduced to new glassware and new techniques of greater complexity than CH 103L It is highly suggested that you read the lab write-up before **comming to** lab.

Safety Requirements:

Students are required to practice safety precautions such as wearing safety glasses while performing experiments. Also covered shoes are required, and long pants is recommended. **Hair** must be tied back away from the face. It is suggested **that** the student **wear** very casual attire since clothing is easily soiled during laboratory work.

Only registered students will be allowed in the laboratory.

Grading:

There will be eight experiments performed and therefore eight lab reports to be handed in. (Lab reports are to be handed in on the following lab meeting.) A final exam will be given on the last lab meeting covering all material.

Grading breakdown is as follows: 45% lab participation and reports, 45% final exam, 10% attitude (following safety requirements, etc.). Make-up labs will be offered with valid excuse.

Tentative Lab Schedule:

Week 1	Recrystallization of p-Dibromobenzene
Week 2	Distillation: Separation and Purification of Organic Liquids
Week 3	Separation by Extraction
Week 4	Chromatography
Week 5	Synthesis: Nitration of Methylbenzoate
Week 6	Qualitative Reactions of Aldehydes and Ketones
Week 7	Synthesis and Properties of Cellulose Acetate
Week 8	Catalase: Decomposition of Hydrogenperoxide
Week 9	Labor Day Holiday
Week 10	Final Exam