



For clicker question voting, go to:  
<https://pollev.com/lauriestarke263>

## National Chemistry Week demos @ Santa Ana Zoo

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Cal Poly Pomona

# CHM 3150 Organic Chemistry II Announcements 10/21/25



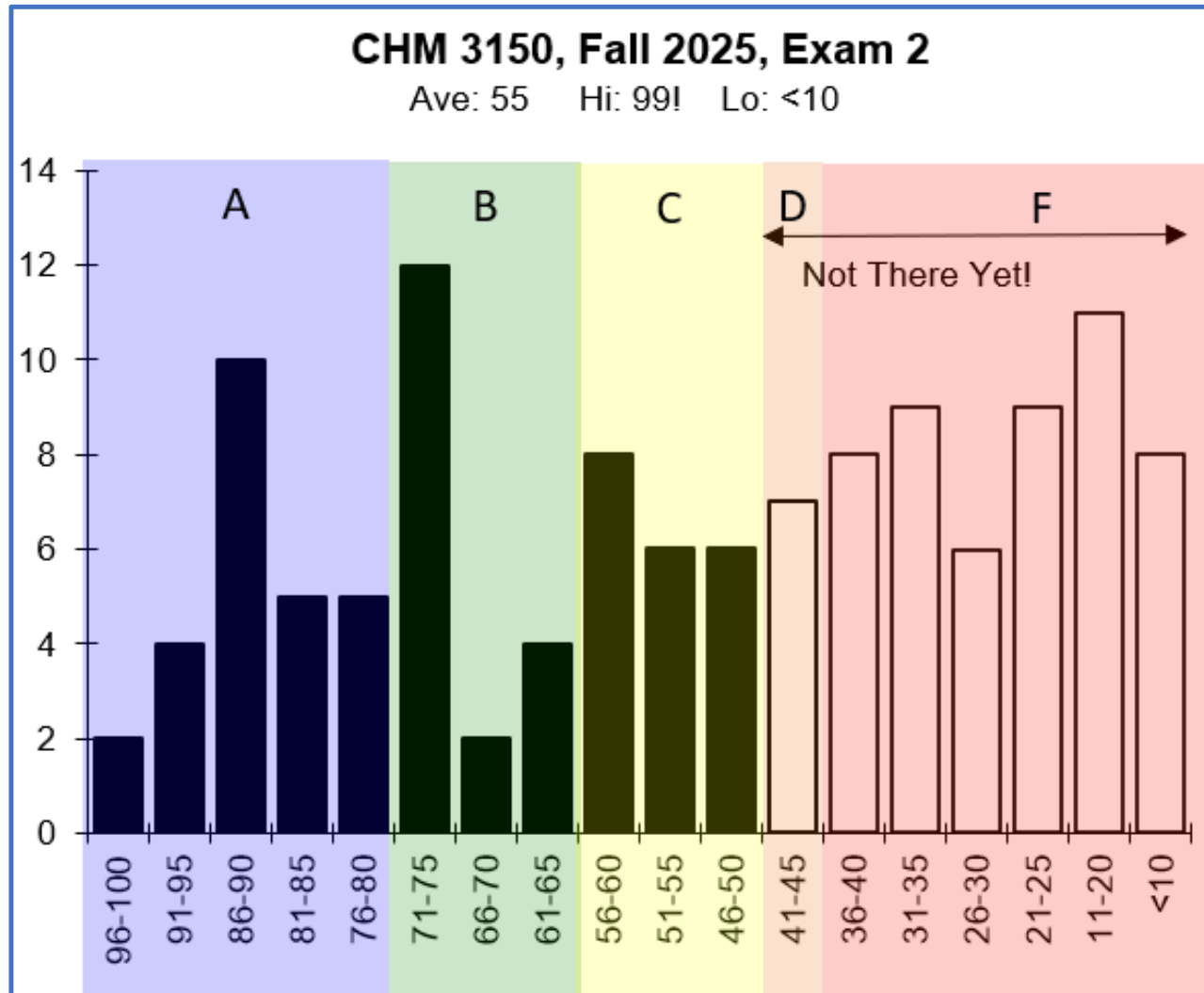
# Exam 2 Results

A/B/C... ranges are to give you a rough idea of your course grade

**if all exams =**

**this midterm score + full homework credit.**

*Note: lowest midterm score will be dropped!*



# Exam Wrapper Survey

## CHM 3150 Exam 2 Wrapper - Post-Test Survey

Name: \_\_\_\_\_

**Metacognition** By taking a step back and **thinking** about the way you **learn**, you can **improve** your learning! The following survey will guide you through an exercise in **self-reflection**, with the goal of improving your performance on the next exam. You will earn 4 points credit if you complete this survey, and 4 points for corrections (\*include written reflection, if score <50). It analyzes the following three areas:

1. How did you prepare for this exam?
2. What kinds of mistakes did you make?
3. How will you prepare differently next time?

What was your score\* on Exam II?

What was your score on Exam I?

*\* If exam score is below 50, you must submit a written reflection with your exam corrections (what will you do differently for the rest of the semester?)*

1. Leading up to the exam, approximately how many hours per week outside of class (on average) did you spend studying Organic Chemistry?

2. Given the number of textbook problems in each chapter (#), about how many did you work on?

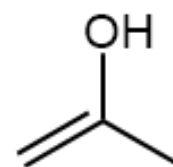
Mark here if no VitalSource (eText) book:

Ch.19 (Ald/Ketone)		Ch. 20 (CA Deriv)	
In-chapter	<input type="text"/>	In-chapter	<input type="text"/>
End-of-chapter	<input type="text"/>	End-of-chapter	<input type="text"/>

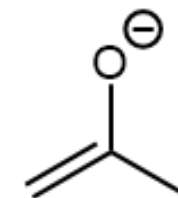
# of Flashcards?

# hours per week?

# Today's Topic: Introduction to Ch. 21 Enols & Enolates



ENOL



ENOLATE

**Daily  
To-Do**

**Flipped  
Lectures**

## Step 1

- Read Klein-Starkey Sections:
  - 21.1 Intro to Enols & Enolates
  - 21.2 Alkylation of the Alpha Position
  - 21.3 Alpha Halogenation

*(SKIP the haloform reaction and Hell-Volhard-Zelinsky reaction & problems 21.13-21.15)*

Enols & Enolates Part 1

40 minutes

*skeleton notes pages 21-1 through*

- Work through **SkillBuilder 21.1** and **Conceptual Checkpoints** (problems 21.1 - 21.10, 21.11ab, 21.12a)

## Ch. 21 Part 1

- ✓ Watch
- ✓ Read
- ✓ Practice

# Flipped Lectures

## Section 8: Enols & Enolates

### ▶ Enols and Enolates, Part 1 ▾

☰ 1:2

Intro	0:00
Enols and Enolates	0:09
The Carbonyl	0:10
Keto-Enol Tautomerization	1:17
Keto-Enol Tautomerization Mechanism	2:28
Tautomerization Mechanism (2 Steps)	2:29
Keto-Enol Tautomerization Mechanism	5:15
Reverse Reaction	5:16
Mechanism	6:07
Formation of Enolates	7:27
Why is a Ketone's $\alpha$ H's Acidic?	7:28
Formation of Other Carbanions	10:05
Alkyne	10:06
Alkane and Alkene	10:53
Formation of an Enolate: Choice of Base	11:27
Example: Choice of Base	11:28
Formation of an Enolate: Choice of Base	
Deprotonate, Stronger Base, and Lithium Diisopropyl Amide (LDA)	
Formation of an Enolate: Choice of Base	
Weaker Base & 'Active' Methylenes	
Why Use NaOEt instead of NaOH?	
Other Acidic ' $\alpha$ ' Protons	
Other Acidic ' $\alpha$ ' Protons	
Why is an Ester Less Acidic than a Ketone?	
Other Acidic ' $\alpha$ ' Protons	
Other Acidic ' $\alpha$ ' Protons Continue	

### Intro to Enols & Enolates

### Formation of Enolates

How are Enolates Used	25:54
Enolates	25:55
Possible Electrophiles	26:21
Alkylation of Enolates	27:56
Alkylation of Enolates	27:57
Resonance Form	30:03
$\alpha$ -Halogenation	32:17
$\alpha$ -Halogenation	32:18
Iodoform Test for Methyl Ketones	33:47
$\alpha$ -Halogenation	35:55
Acid-Catalyzed	35:57
Mechanism: 1st Make Enol (2 Steps)	36:14

### Reactions of Enols/Enolates

### Halogenation & Alkylation of Alpha Position

# Exam 3 Covers Chapter 21 & Aromatic (17/18)

## CHM 3150 Organic Chemistry II, Dr. Laurie S. Starkey, Fall 2025

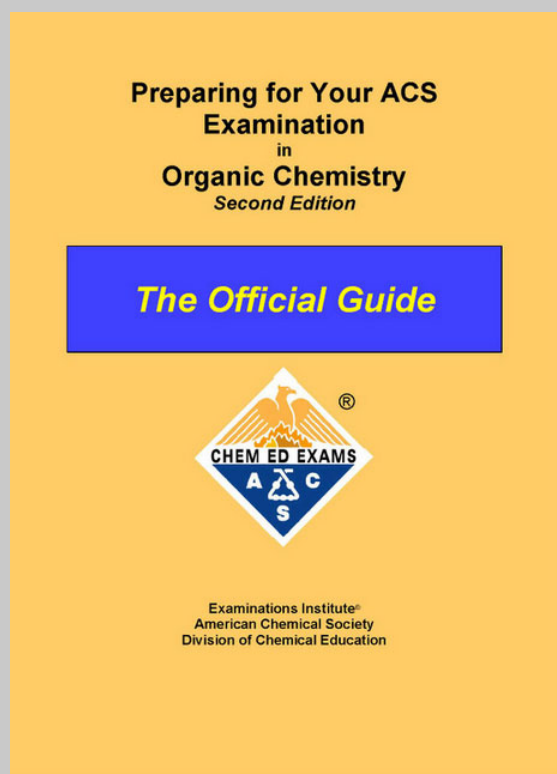
### *Tentative Schedule (Chapter and Worksheet #)*

<b>Week</b>	<b>Mon</b>	<b>Tues</b>	<b>Wed</b>	<b>Thurs</b>	<b>Fri</b>
8	10/13	10/14 <del>Ch. 20 #4, Review</del>	10/5	10/16 <del>Exam II</del>	10/17
9	10/20	10/21 Ch. 21 #1	10/22	10/23 Ch. 21 #2	10/24
10	10/27	10/28 Ch. 21 #3	10/29	10/30 Ch. 21 #4	10/31
11	11/3	11/4 Ch. 17 #1	11/5	11/6 Ch. 17/18 #2	11/7
12	11/10	11/11 Holiday	11/12	11/13 Ch. 17/18 #3	11/14
13	11/17	11/8 17/18 #4 Ch.22.10, 22.11	11/19	11/20 Ch. 16 #1	11/21
14	11/24	11/25 Exam III	11/26	11/27 Holiday	11/28 Holiday

# Planning for the ACS Final Exam

(multiple-choice, Chapters 1-22)

## Study Guide & Online Practice Exam Available



Organic Chemistry - Study Guide

\$30

Organic Chemistry - Bundle (Includes: Study Guide with Timed Online Practice Exam)

\$34

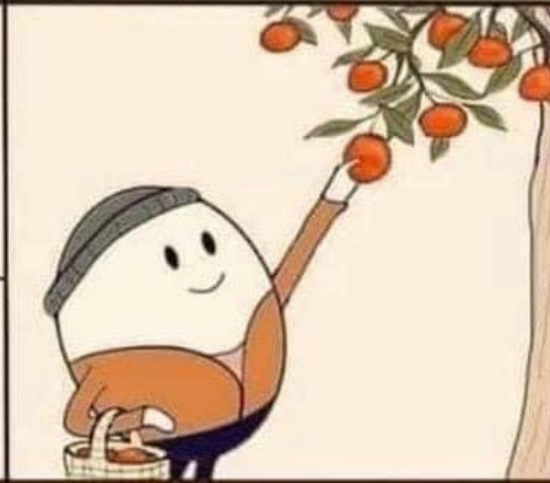
Organic Chemistry - Bundle (Includes: Study Guide with Online Tutorial Practice Exam)

\$39

Organic Chemistry - Bundle (Includes: Study Guide, Online Tutorial and Timed Online Practice Exams)

\$46

Humpty Dumpty had a great fall



# Your Autumn Activities

Pumpkin pie

Football  
Baseball

Diwali (Hindu festival of lights) & rangoli sand art

Studying & School Applications

Waiting for Thanksgiving or Christmas!

Gardening

Studying O-Chem

Dressing up for Halloween (with pets!)

LA Haunted Hayride

Looking forward to cooler weather

Midterms

Dia de las Muertos

Disneyland

Halloween Parties

Autumn Decorations

Universal Horror Nights

Spending time Outdoors

Pumpkin-spice latte

Exercise  
Running  
Hiking

Horseback riding

Haunted mazes

**CPP  
Pumpkin  
Festival**

Scenic drives

Carving Pumpkins

Apple-picking

Baking

Knott's Scary Farm

Dressing up Pets

Scary Movies

Movies  
Beetlejuice  
Corpse Bride  
Hocus Pocus  
Fantastic Mr. Fox  
Coraline

Rewatch Over the Garden Wall

Cozy clothes

Family & Friends