

Problems	Points	Credit
1. Functional Group Nomenclature (1 large structure)	30	
2. Lewis Structures, Resonance, Formal Charge	24	
3. Cyclohexane Conformations, 2 substituents, Newman Projections, Relative Energies, K_{eq} Calculation	30	
4. Newman Projections, Conformational Energies, K_{eq} Calculation	30	
5. Stereochemical Analysis	31	
6. 2D Resonance Structures, 3D Structure, Hybridization, Angles, Shapes, Explain bond energies	32	
7. Types of isomers from a given formula	14	
8. Draw a long 2D structure and identify functional groups	25	
9. Common nomenclature terms or physical properties	21	
Total	237	

This is a long exam. It has been designed so that no one question will make or break you. The best strategy is to work steadily, starting with those problems you understand best. Make sure you show all of your work. Draw in any lone pairs of electrons, formal charge and curved arrows to show electron movement where appropriate. Do your best to show me what you know in the time available.

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Possible outcomes IF 100% = 160 points (HW not considered)			Possible outcomes IF 100% = 160 points (HW considered)	
100%	160 pts	A	100%	160 pts
85%	136 pts	A	80%	128 pts
70%	112 pts	B	60%	96 pts
68%	109 pts	B-	57%	91 pts
55%	88 pts	C	40%	64 pts
50%	80 pts	C-	33%	53 pts
40%	64 pts	D	20%	32 pts

Option for improving your midterm grade. (Regrade option)

1. I will send out links to the midterm after our exam. Use those links to find 1. a blank copy of the midterm and 2. the exam key. Print out those copies.

1. blank midterm copy link: This link will be posted after the midterm exam.

2. midterm key link: This link will be posted after the midterm exam.

I will trade you exam points for carefully reviewing the exam 3 additional times. The plan is: study the key until you think you understand each question. Retake the **entire** exam (you can use your one page of notes, a calculator and molecular models). Use as much time as necessary and don't copy the answers. Finally trade exams with another student and correct each other's exam using the key (in detail!). Use a different color of ink to make corrections so they are clearly evident. If you cannot find someone to trade with, then grade your own exam. Assign a percent score based on the total number of points. Turn in your corrected exam by Tuesday (Mar.3) at the start of the period, (no homework collected that day). I will not accept the "redo" after Tuesday. **No matter what score you get on the regrade, I will recalculate your new exam score as follows:**

$$\text{New score} = (\text{original score}) + (100 - \text{original score})(0.10)$$

examples	old score	new score
$(100) + (100 - 100)(0.1) = 100 + 0 = 100$	100	102 (minimum bonus is 2 pt.)
$(90) + (100 - 90)(0.1) = 90 + 1 = 91$	90	92 (minimum bonus is 2 pt.)
$(80) + (100 - 80)(0.1) = 80 + 2 = 82$	80	82
$(70) + (100 - 70)(0.1) = 70 + 3 = 73$	70	73
$(60) + (100 - 60)(0.1) = 60 + 4 = 64$	60	64
$(50) + (100 - 50)(0.1) = 50 + 5 = 55$	50	55
$(40) + (100 - 40)(0.1) = 40 + 6 = 46$	40	46
$(30) + (100 - 30)(0.1) = 30 + 7 = 37$	30	37
$(20) + (100 - 20)(0.1) = 20 + 8 = 28$	20	28
$(10) + (100 - 10)(0.1) = 10 + 9 = 19$	10	19
$(0) + (100 - 0)(0.1) = 0 + 10 = 10$	0	10

Include the following statement at the bottom of the exam cover page.

I have taken the following exam by myself. The only resources used to take this exam were myself, my pencil, my one page of notes from the actual midterm, a calculator and molecular models.

Signature (and print) _____

I graded the exam of (print) _____

Grader of this exam (print) _____

To improve your grade in this course (moving forward from this point):

2. Keep up with the lecture material. Be an engaged participant in each lecture. Review each lecture in an active manner before the next lecture. Read the notes and rework the information in a manner compatible with your way of thinking. Keep a written list of specific questions as they occur to you and resolve them as quickly as possible.
3. Do as much of the homework as you can. Do not copy homework solution keys. Write out your answers for the problem by yourself. Check the keys after you do the work and then correct your mistakes. Repeat the problems until you can retain them in your head. Your hand will train your mind, if you let it. There is no doubt that this is a lot of work, but there is also no doubt that no one learns organic chemistry from a casual effort. It is a waste of your time and a deception to your intelligence to pretend otherwise. The hardest material is yet to come, so if you are going to advance your goals in the course, you have to match your effort to the demands of the course. The result of a bad grade is you get to take the course over, and how much time will that take?

I have an Excel spread sheet of the grades. You are free to view your current status whenever the opportunity is available at office hour (or by email). The overall course grade is listed below along with several scenarios of how exam averages and homework averages can combine to produce the overall course percents.

Overall percents for course grades: 85=A 70=B 68=B- 55=C 50=C- 40=D

HW / Clickers %*							} These represent the exam averages (75% of the grade) to obtain the required overall course grade for various HW/clicker percents. (25% of the grade)
100%	80	60	57	40	33	20	
90%	83	63	61	43	37	24	
80%	85	67	64	47	40	27	
70%	85	70	67	50	43	30	

* I drop the 2 lowest HW/quiz grades and if HW grade is lower than exam grade, I do not count it.