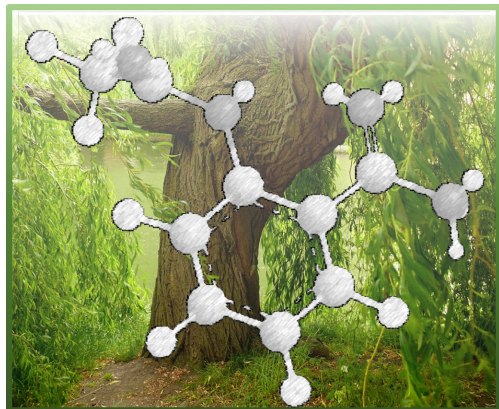


Course Syllabus

[Jump to Today](#)  Edit




Welcome to CHM2211C Organic Chemistry 2!

Organic chemistry is the study of carbon, the basis of all living things on Earth. In this class, you will have the opportunity to explore how chemical structures create the physical and chemical properties that we observe every day in medicine, fuel, materials, food, and more. The second semester covers many more reactions than the first and focuses on multistep synthesis to make larger molecules. It involves deep analytical thinking that I hope you will enjoy!






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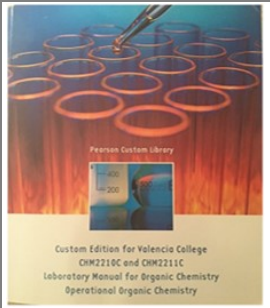
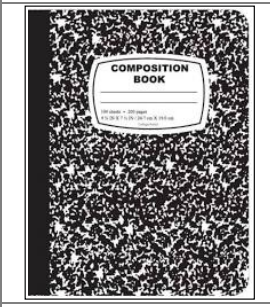

Class Meeting Times

Lab Meeting 	Mondays 8:30am - 11:15am	Lake Nona Campus room 350
Class Meeting 	Wednesdays 10:00am - 11:15am	Lake Nona Campus room 305
Online work 	whenever you'd like (before class)	whenever you'd like

Instructor Contact Information

	<p>Dr. Laura Sessions</p> <p>About Me (https://online.valenciacollege.edu/courses/189831/pages/about-dr-sessions)</p> <p>Best contact: Canvas Inbox. I will respond within one business day and often sooner!</p> <p>Other contacts: lsessions@valenciacollege.edu (mailto:lsessions@valenciacollege.edu)/407-582-7138</p> <p>Learn more about my expectations for the class in the Start Here/Expectations (https://online.valenciacollege.edu/courses/189831/pages/start-here-slash-expectations) page.</p>
 OR 	<p>Office Hours</p> <p>in office (Lake Nona Campus room 319) Mondays 2:30-3:00pm, Tuesdays 9:15 - 9:45 am/2:30-3:00pm, Wednesdays 9:15 - 9:45am/1:00 - 1:30pm, Thursdays 9:15 - 9:45am</p> <p>via Zoom Mondays and Wednesdays 3:30 - 4:30pm</p> <p>via Canvas Inbox/email F 9:00 am - 2:00 pm or other times by appointment</p>

Required Supplies

	<p>Textbook</p> <p>We will use a variety of free resources for the class, so good internet connectivity and navigation skills are required. These are the core textbooks:</p> <ul style="list-style-type: none">• <i>Organic Chemistry with a Biological Emphasis Volume I</i> by Timothy Soderburg<ul style="list-style-type: none">◦ downloadable as PDF textbook◦ downloadable Solutions to In-Chapter Exercises / Solutions to End-of-Chapter Problems• Organic Chemistry: A Tenth Edition by John McMurry• Virtual Textbook of Organic Chemistry by William Reusch <p>These are professional tools that we will learn to use in the class as well:</p> <ul style="list-style-type: none">• Chemicalize• ChemDB Portal• Organic Chemistry Portal
	<p>Lab Manual</p> <p><i>Operational Organic Chemistry</i> Valencia Custom Edition by John Lehman, Pearson Prentice Hall, 2009.</p> <ul style="list-style-type: none">• ISBN: 1269103490 <p>ISBN 9780136000921 to search for the full 4th edition for rental/used. Available on course reserves in the library or in the tutoring center (room 230).</p>
	<p>Lab Notebook</p> <p>You may choose your preferred format: paper or electronic.</p> <ul style="list-style-type: none">• For paper, the pages are bound together - cannot be spiral or tearable pages.<ul style="list-style-type: none">◦ You will take pictures and upload them to Canvas for grading.• For electronic, you must be able to record your data and drawings in real time as you work in the lab in the OneNote template.<ul style="list-style-type: none">◦ You will need a tablet, laptop, or your phone in the lab.◦ This means that you are risking chemical exposure or other damage to your device - this is at your own risk.◦ For One Note, you have free MS Office - see link under Technology below.
	<p>Technology</p> <ul style="list-style-type: none">• computer with reliable internet• ability to take and upload pictures of hand-written work• word processing software and PowerPoint/Google slides or compatible• professional chemistry software <p>Free MS Office: https://valenciacollege.edu/faculty/canvas-resources/plugins-and-software.php</p>


Course Description

Continuation of CHM 2210C with laboratory devoted to multistep synthesis. Prereq: Minimum grade of C in CHM 2210C.

See also [Course Learning Outcomes](https://online.valenciacollege.edu/courses/189831/pages/course-learning-outcomes)

Core Competencies

Success in the class originates from *actively* thinking and *working* through many different practice problems. Communicating scientific ideas effectively with others is a key component of learning and a workforce skill. Sitting passively watching videos or listening to someone else explain or even simply reading without analyzing the content will not help as much as one might think. Take a look at the [How to Study Organic Chemistry](https://online.valenciacollege.edu/courses/189831/pages/how-to-study-organic-chemistry) pages for specific ideas!

<ul style="list-style-type: none">• 01 THINK – You will analyze data and ideas, employ formulas and procedures, and draw and revise supported conclusions.• 02 VALUE – You will recognize relevant information and manage work time.• 03 COMMUNICATE – You will exchange ideas and information with others.• 04 ACT – You will responsibly set goals and reflectively solve problems, individually and in groups.	
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This is a **mixed mode class** - the face-to-face meeting time is only 1.25 hours so that there will be about 1.25 hours preparation online before class and a little homework after class. In class, we will do mini-lectures, problem solving, and examine interesting applications together. I have carefully designed the class to be as focused and efficient as possible. The most effective use of your time will be to do the preparation online before class - it is designed to expose your brain to the concepts, so that you will better understand and remember the work that we do together. Labs are 2.75 hours each week. You must prepare before lab in order to be able to complete the lab skills successfully.

This is also a **mastery class** - you have multiple attempts to demonstrate your mastery of organic chemistry on assignments and multiple ways to earn your desired grade.

Technology and Skills

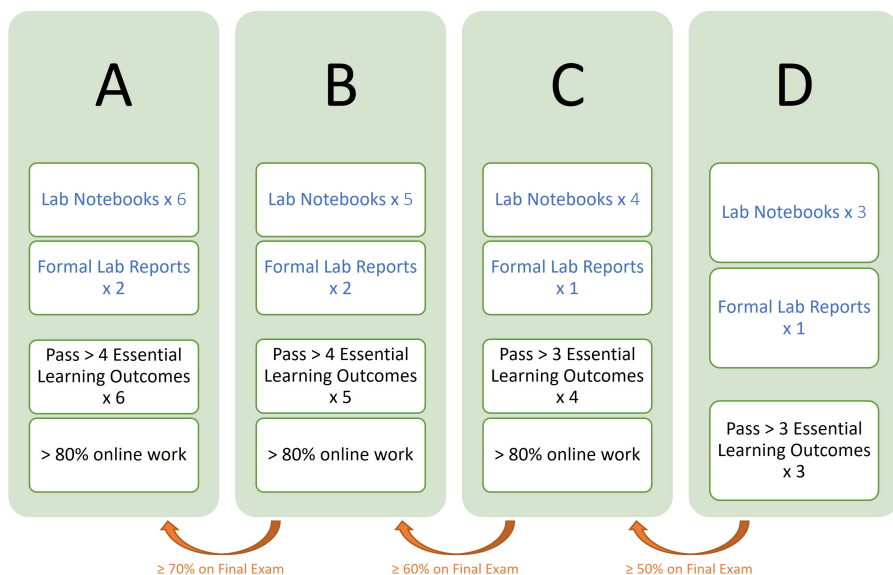
You will be required to:

- Have good internet connectivity
- Access textbook websites
- Download and read PowerPoint/Google slides and PDF files
- Draw pictures and upload them in Canvas assignments and discussions
- Use professional chemistry software and databases
- Create and upload Office or PDF files through Canvas
- Access the Canvas grading rubric

Grading

The class consists of 5 essential learning outcomes and 7 lab activities. You may demonstrate learning outcomes on nearly weekly quizzes, on four tests, and on the final exam; these give approximately nine opportunities to work on a learning outcome. The Final Exam will be the American Chemical Society Organic Chemistry Exam. If you have earned your desired grade, you do not need to take the final. On the other hand, achieving a 50% or more on the Final Exam will round up to a C; 60% or more round up to a B; or 70% or more round up to a C. Note that to round up, the minimum criteria for lab grades must be met.

Assignments including lab reports, formal lab reports, and other activities will give you the opportunity to practice the learning outcomes. Assignments will be graded each week with detailed feedback given in the Canvas grading rubrics; nearly all assignments have two attempts so make sure to read the feedback given to earn the passing grade. Second attempts must be submitted within a week of grading. To pass the class, 80% of these other activities must be completed.



There are no points to worry about in the class. Quizzes, tests, and exams will be graded as Pass or No Pass. A pass is 85-90% correct understanding depending on the number of questions. Labs will be graded as Pass, Needs Revision, or No Pass. You have **one week following the return of graded items** to do a re-write (for online work and labs). Keep track of your grades in the [Grades \(https://online.valenciacollege.edu/courses/189831/grades\)](https://online.valenciacollege.edu/courses/189831/grades) tool in the left menu - you will simply count the checkmarks in each category to determine your grade. *Note: the % grade given by Canvas is not accurate - only the checkmarks!*

See the [Course Learning Outcomes \(https://online.valenciacollege.edu/courses/189831/pages/course-learning-outcomes\)](https://online.valenciacollege.edu/courses/189831/pages/course-learning-outcomes) for the detail on each grading category. Descriptions of each assignment type are on the [Course Assignments \(https://online.valenciacollege.edu/courses/189831/pages/course-assignments\)](https://online.valenciacollege.edu/courses/189831/pages/course-assignments) page.

Attendance

Attendance is not required, however to demonstrate that you have learned the outcomes (by completing labs, quizzes, and assignments), you will find that attendance to lab and lecture class is necessary.

Special note: in order to participate in labs, the pre-lab notebook and quiz must be completed prior to arrival and proper lab attire must be worn. Missing a lab will result in a 0 for that lab report. See the [Course Assignments \(https://online.valenciacollege.edu/courses/189831/pages/course-assignments\)](https://online.valenciacollege.edu/courses/189831/pages/course-assignments) for details.

For the online component, plan to spend time 2-3 days per week in the Canvas course and to complete assignments by the due dates each week.

No Show

To comply with regulations from the Department of Education dealing with program integrity, faculty must document attendance. During the first week(s) of class prior to the No Show deadline, you must attend lab and class on Week 1. Just logging into the course does NOT count as attendance.

If you are withdrawn as a "no show," you will be financially responsible for the class and a final grade of "WN" will appear on your transcript for the course.

Make-up Policy

To simplify the process when illness or emergency occurs, the [Grading](#) policy provides for missing assignments. No need to explain anything in the case of a few missed grades. If you are unable to participate in the course due to illness, family emergency, etc. and it goes beyond a few missed grades, please communicate with me as soon as possible in order to create a plan to complete any missed assignments so that your learning can progress in your course.

Note that in order to receive a second attempt on labs or assignments, **the first attempt must be submitted on time**. The second attempt must be submitted within one week of grading. Discussions may not be completed late since they require interactions with peers.



Exams may be completed late in the case of extreme illness or documented official representation of the college at an event, religious observances, jury duty, or active military service. Communicate with me **prior** to any missed exam to schedule a make-up. Quizzes may be made up in office hours within a week of the scheduled time.

The final exam is must be taken on or before the date published for final exams.



Withdrawal Policy

Note the withdrawal deadline for the term in [Important Dates](#). Per Valencia Policy 4-07 (Academic Progress, Course Attendance and Grades, and Withdrawals), a student who withdraws from class before the withdrawal deadline will receive a grade of "W." A student is not permitted to withdraw after the withdrawal deadline - the course grade will be the grade earned. Any student who withdraws or is withdrawn from a class during a third or subsequent attempt in the same course will be assigned a grade of "F." For a complete policy and procedure overview on Valencia Policy 4-07, please see the [Valencia Catalog \(https://valenciacollege.edu/students/catalog/\)](https://valenciacollege.edu/students/catalog/).

Expected Student Conduct

<p>Academic Dishonesty: <i>Don't do it!</i></p>	<p>You have joined this class to learn. To promote learning, all forms of academic dishonesty are prohibited at Valencia College. Academic dishonesty includes, but is not limited to: plagiarism, cheating, furnishing false information, forgery, alteration or misuse of documents, misconduct during a test situation, and misuse of identification with intent to defraud or deceive. It is assumed that all work that you turn in is your own. It is cheating to show someone your activities, homework, or lab work so that they may copy the work instead of doing it themselves. It is cheating to copy directly from any reference.</p> <p>While use of artificial intelligence (AI) tools to improve your work is a good idea, using AI to do your work for you is not acceptable. For example, it would be smart to have an AI check your spelling and grammar for a discussion post or to help you find an interesting molecule to research. It would not be acceptable to have an AI write your entire post or predict a product for you. 1) AI still makes a lot of errors at this point in time! 2) Overuse of AI will not help you to learn chemistry.</p>
 <p>Netiquette</p>	<p>Valencia College is dedicated not only to the advancement of knowledge and learning but is concerned with the development of responsible personal and social conduct. By enrolling at Valencia College, a student assumes the responsibility for becoming familiar with and abiding by the general rules of conduct.</p> <p>Whether online or face-to-face, discussions and email require courtesy and respect for classmates and the instructor. See the guidelines for Class Behavior Guidelines (https://online.valenciacollege.edu/courses/189831/pages/class-behavior-guidelines?wrap=1) for more information.</p> <p>Safety lab behavior must be maintained at all times during the laboratory classes: see the lab rules (https://mail.valenciacollege-my.sharepoint.com/:b/g/personal/lsessions_valenciacollege_edu/EZFuRo7_4sZOqV_L0rD8UPQB1eRICO_qRimXhGrT4H43A?e=hhYK7D).</p>
 <p>Consequences</p>	<p>Netiquette violations or cheating will result in a grade of zero for all parties involved. Any evidence of cheating on any assignment or quiz will result in 0 for the first offense and an "F" for the entire course after that warning. The final exam will not round up if any course grade earned a 0 for cheating.</p> <p>Students who engage in any prohibited or unlawful acts that result in disruption of a class may be referred to the Dean of Students. Violation of Valencia's rules may lead to disciplinary action up to and including expulsion from Valencia. Disciplinary action could include being withdrawn from class, disciplinary warning, probation, suspension, expulsion, or other appropriate and authorized actions. Each student is expected to be informed and compliant with the college policy on academic honesty in the Valencia College Student Handbook (https://catalog.valenciacollege.edu/academicpoliciesprocedures/studentcodeofconduct/).</p>

Technical Support

	<p>Click on the question mark in the left menu for 24/7 help with Canvas and technical support.</p> <p>Free Canvas training class: https://valenciacollege.edu/students/learning-support/online/index.php (https://valenciacollege.edu/students/learning-support/online/index.php).</p> <p>SoftChalk User Guide (for the Lessons and pre-lab quizzes): https://softchalk.atlassian.net/wiki/spaces/SD/pages/200114368/Student+Guide+to+SoftChalk+Lessons  https://softchalk.atlassian.net/wiki/spaces/SD/pages/200114368/Student+Guide+to+SoftChalk+Lessons</p>
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Assistance over the phone or via live chat to troubleshoot technical problems

- Help page with technical support: <https://valenciacollege.edu/about/support/how-to.php> (<https://valenciacollege.edu/about/support/how-to.php>)
- Atlas Help Desk: 407-299-5444 8 am - 6 pm Mon -Thurs and 9 am - 5 pm Friday
- Online Help Desk: 407-299-5600 24 hours a day 7 days a week

College Policies

Disability Support Services: Students with disabilities who qualify for academic accommodations must provide a notification from the Office for Students with Disabilities (OSD) and discuss specific needs with the instructor, preferably during the first two weeks of class. The Office for Students with Disabilities determines accommodations based on appropriate documentation of disabilities. Osceola Campus OSD Phone: 407-582-4167.

FERPA Statement: FERPA is a Federal law that is administered by the Family Policy Compliance Office (Office) in the U.S. Department of Education (Department). 20 U.S.C. § 1232g; 34 CFR Part 99 and affords students certain rights with respect to their educational records. Valencia College has a firm commitment to protecting the privacy rights of its students. For further information on FERPA see: <https://valenciacollege.edu/about/ferpa/> (<https://valenciacollege.edu/about/ferpa/>)

All software required for the course subscribes to FERPA protection of student information when applicable. You can see the privacy policies for each software below:

- Canvas: <https://www.instructure.com/policies/privacy> (<https://www.instructure.com/policies/privacy>)
- OpenStax: <https://openstax.org/privacy> (<https://openstax.org/privacy>)
- YouTube: <https://policies.google.com/privacy?hl=en> (<https://policies.google.com/privacy?hl=en>)
- SoftChalk: <https://www.softchalkcloud.com/privacy> (<https://www.softchalkcloud.com/privacy>)
- Chemicalize: <https://docs.chemaxon.com/display/docs/privacy-policy.md> (<https://docs.chemaxon.com/display/docs/privacy-policy.md>)
- PubChem: https://www.nlm.nih.gov/web_policies.html (https://www.nlm.nih.gov/web_policies.html)

Student Help: Valencia College is interested in making sure all our students have a rewarding and successful college experience. Valencia students can get immediate help with issues dealing with stress, anxiety, depression, adjustment difficulties, substance abuse, time management as well as relationship problems dealing with school, home or work. Students have 24 hour unlimited access to the Baycare Behavioral Health's confidential student assistance program phone counseling services by calling (800) 878-5470. Three free confidential face-to-face counseling sessions are also available to students.

Students also have access to Valencia's **free real-time online tutoring** on Zoom or in person: <https://valenciacollege.edu/students/learning-support/lake-nona/index.php> (<https://valenciacollege.edu/students/learning-support/lake-nona/index.php>)

Counselors: Valencia College counselors assist students who may be facing barriers that impede their academic success. Valencia counselors can provide strategies and support if you're experiencing symptoms of stress/anxiety/depression, lack of motivation, feeling overwhelmed, relationship concerns, physical/mental health challenges, loss of loved one/grief, food insecurity, homelessness, among other concerns; and can provide resources for community mental health and social services. Valencia counselors cannot provide therapy and will refer students to BayCare Student Assistance Program appropriately. Valencia Counselors can assist students virtually or on-campus during standard business hours. Connect with a counselor and review many helpful resources at <https://valenciacollege.edu/starttalking> (<https://valenciacollege.edu/starttalking>).

Title IX Statement: Valencia College strives to be a place free from all forms of discrimination. Title IX protects students from discrimination based upon sex including protections against sexual violence, domestic violence, and stalking. This also includes protections for students who are pregnant or may become pregnant. If you experience sexual violence, domestic violence or stalking and would like assistance there are several options available to you. Valencia partners with the Victim Service Center of Central Florida which is a confidential resource available 24/7. They can be reached at 407-497-6701 or at <https://www.victimservicecenter.org/> (<https://www.victimservicecenter.org/>). If you would like assistance on campus, you can go to <http://valenciacollege.edu/eo> (<http://valenciacollege.edu/eo>) or contact Valencia College's Title IX and Equal Opportunity Officer, Ryan Kane, by emailing rkane8@valenciacollege.edu. If you would like to report to law enforcement, you may call or visit Campus Security or call 911.

Please note that there are no confidential resources on campus. As your professor, I am required to report any information mentioned in this statement to the appropriate campus resources. This will include your name and detailed information shared with me. We take privacy very seriously at the College and only those who have a legitimate need to know the information will be provided with this information. If you have more questions about Title IX or the College's response, please visit <http://valenciacollege.edu/eo> (<http://valenciacollege.edu/eo>).

Florida House Bill 233: Intellectual Freedom and Viewpoint Diversity: Students may record video or audio of class lectures for their own personal educational use. A class lecture is defined as a planned presentation by a college faculty member or instructor, during a scheduled class, delivered for the purpose of transmitting knowledge or information that is reasonably related to the pedagogical objective of the course in which the student is enrolled. Recording class activities other than class lectures, including but not limited to class discussions, student presentations, labs, academic exercises involving student participation, and private conversations, is prohibited. Recordings may not include the image or voice of other students in the class, may not be used as a substitute for class participation and class attendance, and may not be published or shared without the written consent of the faculty member. Failure to adhere to these requirements may constitute a violation of the College's Student Code of Conduct.

Important Dates

Drop/Refund Deadline (11:59 p.m.) Jan 16

Withdrawal Deadline - "W" Grade (11:59 p.m.) March 15

Holidays - no class Jan 15, March 18-24

Tests: Jan 29, Feb 21, Mar 13, Apr 17

Final Exam: Monday April 22 8:30 - 10:30am in room 350



As many factors may affect the development and progress of a class, please note that the syllabus is subject to change during the term by announcement by the professor on Canvas. Your continued participation in this course after the drop-add deadline period constitutes an agreement with and an acceptance of the conditions

presented in this syllabus.

Week	Date	Unit	Lab	Lecture
1	Jan 8	1	Introductions/Lab safety training Nomenclature/IR spectroscopy	1H and 13C NMR
2	Jan 15	1	Martin Luther King Jr Day - no lab	mass spec/UV
3	Jan 22	1	Quiz LO5: spectroscopy Expt. #33: Spectral Analysis of Monoterpenes	Spectral ID Review
4	Jan 29		Test 1	Resonance and Dienes <i>Formal Lab Report #1 (Expt #33) Due Saturday</i>
5	Feb 5	2	Expt. #35: Bromination of Vanillin	Quiz LO1/2: benzene nomenclature and diene mechanisms Hybridization and Aromaticity
6	Feb 12	2	Quiz LO 4: aromaticity Finish Expt #35	Reactions of Aromatic Compounds <i>Formal Lab Report #2 or lab notebook (Expt #35) Due Saturday</i>
7	Feb 19	2	Multistep Synthesis/Retrosynthesis	Test 2
8	Feb 26	3	Minilab #21: Radical Stability Radicals	Alcohols <i>Lab Notebook (Minilab #21) Due Saturday</i>
9	March 4	3	Expt. #10: Isolation and Identification of the Major Constituent of Clove Oil	Quiz LO2/4: radical mechanisms and applications Ethers and Synthesis
10	March 11	3	Quiz LO1/2/3: alcohol/ether nomenclature, mechanisms, and retro Finish Expt. #10	Test 3 Planning minilab #45 <i>Lab Notebook (Expt #10) Due Saturday</i>
11	March 18	3	Spring Break - no lab	Spring Break - no class
12	March 25	4	minilab # 45: Preparation of Soap	Acyl Substitution Reactions/Reduction Reactions <i>Virtual Aspirin Labs #1-2 Due Saturday (LO 2)</i>
13	April 1	4	Finish minilab #45 Expt. #4: Synthesis of Salicylic Acid from Wintergreen Oil	Aldehyde/Ketone Reactions <i>Virtual Aspirin Labs #3-4 Due Saturday (LO 4)</i> <i>Formal Lab #2 or lab notebook (minilab #45) due Saturday</i>
14	April 8	4	Quiz LO 1/2: acyl substitution mechanisms Expt. #34: Synthesis and Spectral Analysis of Aspirin	Alpha-Carbonyl Reactions/Condensation Reactions
15	April 15	4	Quiz LO 3/5: carbonyl retrosynthesis and spectroscopy Finish Expt. #34	Test 4 <i>Lab Notebook (Expt #4/34) Due Saturday</i>
16	April 22	-	FINAL EXAM Mon April 22 8:30 - 10:30am in room 350	-

Expt # refers to Lehman lab manual.

Course Summary:

Date	Details	Due
Tue Jan 9, 2024	 *Resonance pre-work	to do: 11:59pm
Fri Jan 12, 2024	 *Find an Interesting Molecule: Diels-Alder (https://online.valenciacollege.edu/courses/189831/assignments/5329698/)	due by 11:59pm