CHEM 281/282 – Exam Study Strategies

SYLLABUS & EXAM FORMAT

- Online Assignments (5%)
- Midterm 1 (15%)
- Midterm 2 (25%)
- Final Exam (45%)
  - Multiple Choice
  - Short Answer
  - Virtual Lab Exams (10%)

HOW TO STUDY

- Practice drawing out structures and mechanisms.
- Flashcards for common structures and names. If using flashcards, try to add contextual information about concepts rather than just definitions. Rewrite ideas in your own words.
- Grouping similar reagents and/or products can be helpful to ensure you can make the distinction between them on the exam.
- Set yourself aside enough time to create a summary sheet for yourself.
  - This can help you revise what you need to know but also can help you make connections between course content.
- Study groups!
  - Having peers explain concepts in different terms can be extremely beneficial.
  - Create a list of common polar and nonpolar compounds.
  - Creating a flowchart for isomers can be helpful!
  - Compare and contrast SN1, SN2, E1, and E2 reactions.

AVOIDING COMMON PITFALLS

<table>
<thead>
<tr>
<th>Common Pitfalls</th>
<th>How To Avoid Them</th>
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<tbody>
<tr>
<td>Studying last minute</td>
<td>• Create a study schedule and be reasonable!</td>
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<td></td>
<td>• Schedule yourself some time where you are able to catch-up, just in case you fall behind!</td>
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<td>• Make sure you also schedule time for breaks!</td>
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<td></td>
<td>• Even 5-10 minutes of study can help: you can start right now!</td>
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<td>Lack of practice</td>
<td>• Summarize what practice problems you know you definitely want to cover.</td>
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<td>• Schedule practice days into your study schedule!</td>
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<td>• Compare your solutions to practice problems with peers if no solutions are provided.</td>
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<tr>
<td>Confusing similar reagents, products, and/or reactions</td>
<td>• Organizing notes in charts can be really useful for comparing and contrasting these types of things</td>
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FINDING PRACTICE QUESTIONS

- In-class examples
- Past Wiley Assignments (old homework)
- Past midterms
- Exam Bank for old exams
- Textbook

OTHER RESOURCES

- Office hours!
  - Go prepared with specific questions and/or have a solution to a practice problem and ask them to mark it for you to see how you would do. This can be a great way to avoid making small mistakes on your exam!
  - Refer to the textbook (but don’t try to memorize the entire thing!)
  - This is a great resource that can provide clarification or be used for extra practice problems.
- Post and/or read questions (and responses) on the Discussion page on onQ

GOING FORWARD

- Focus on understanding, not memorizing... don’t just know what happens, but try to ask yourself why or how something happens!
- Create a table of all the mechanisms you are learning as the semester progresses.
  - Possible columns could include: reactants, conditions, products, and mechanism
- Take this one step further and try to categorize the different types of mechanisms.
- Like making tables? Make one for protecting groups as well!

ADDITIONAL RESOURCES

- Need help on how to approach application based questions?
- Want to review common types of difficult problems?
- Do you struggle with multiple choice questions?
- Looking for special techniques about how to write math and science exams?
- Want useful advice about how to manage your time and reduce test anxiety?
  - Then visit SASS’ online exam prep guide at http://sass.queensu.ca/exam-prep

Also try:
- ASUS’ Peer Tutoring service (or ask the Department of Chemistry for their list of tutors)
- Search for explanations of foundational concepts on the Khan Academy website: https://www.khanacademy.org/science/organic-chemistry