


It's Always Midterm Season:

Study Strategies for Maximizing Your Performance on Exams in STEM

**Next Generation Science Programs
October 3, 2023
nextgenscience@dornsife.usc.edu**

What is Next Generation Science Programs?

USC Dornsife's Next Generation Science Program aims to increase engagement, participation, equity, and inclusion in the natural sciences at USC. We strive to provide access to academic support and immersive experiential opportunities that further encourage students of all backgrounds to fully engage and thrive in the USC science community



USC Dornsife
NEXT GEN SCIENCE

**FG
SC**

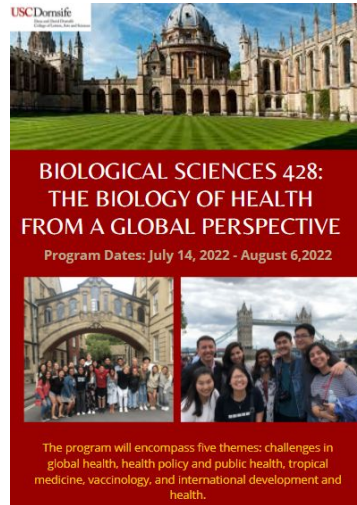

FIRST-GEN in STEM

Join us as we build community and celebrate the experiences of first-generation college students studying or interested in science, technology, engineering, and math (STEM).

Food and Giveaways!

- **When:** Wednesday 11/9/22; 3-4PM
- **Where:** FG+SC Success Center; TCC 224


Scan to RSVP!



USC Dornsife
Department of Biology
BIOLOGICAL SCIENCES 428

BIOLOGICAL SCIENCES 428: THE BIOLOGY OF HEALTH FROM A GLOBAL PERSPECTIVE

Program Dates: July 14, 2022 - August 6, 2022



The program will encompass five themes: challenges in global health, health policy and public health, tropical medicine, vaccinology, and international development and health.



USC Dornsife
NEXT GEN SCIENCE

USC Dornsife Next Generation Science Programs
presents:

ACADEMIA vs INDUSTRY

Explore the different experiences of alumni and faculty who have pursued careers in academia/research and those who have pursued scientific careers in the corporate world.



Study Tips from your SI Leaders

Andrew Vu (CHEM 115)
(BISC 120)

Dominic Pak



USC Norman Topping
Student Aid Fund



Agenda

- About Us
 - How do I create a study schedule?
 - How can I know what to study?
 - How can Supplemental Instruction (SI) help?
 - Tips for Exams
 - Tips for Your BISC/CHEM Courses
-

About Us



Andrew (CHEM 115)

- **Class:** Senior
- **Major:** Molecular Biology, BS and Spanish, BA
- **Hometown:** Chatsworth, CA
- **Involvements:** Trojan Knights and Chess Club
- **Research Interests:** Cancer epigenetics and Next Generation Sequencing @ the Rhie Lab



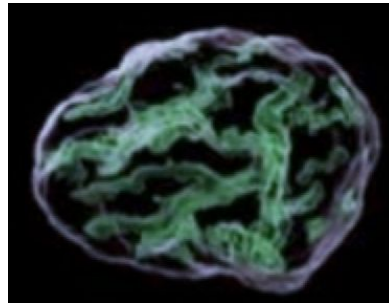
Dominic (BISC 120)

- **Class:** Senior
- **Major:** Environmental Science and Health, BS, and Global Medicine, MS
- **Hometown:** Whittier, CA
- **Involvements:** AED, LSM, Peer Advisor at Pre-Health Office, Dornsife Ambassadors, CHLA Volunteer
- **Research Interests:** Community engaged, environmental public health research (EH MATTERs Program – Aung Lab)

**How do I create a
study schedule?**

How do I create a study schedule?

- Let's say you have your second midterm exam for BISC 404 on Thursday (totally not based on a real scenario).
- How do you prepare?



Andrew

- Mark it on my calendar and notes app, then divide a certain amount of days to studying for it:
- Make sure to stay on track! That's while keeping up with other classes too.

BISC 404

- **[DAILY] Midterm Thursday**

THU
5



SPAN 310: Structure of
9:30 – 10:50am
THH118

SPAN 484: Studies in
11am – 12:20pm
THH215

BISC 403: Exam 2
12:30 – 1:50
KAP163

Sunday	Monday	Tuesday	Wednesday	Thursday
Lecture 4 Review Week 4 Paper	Lecture 5 Review Week 5 Papers (2)	Lecture 6 Review Week 6 Papers (2)	Last Review	Midterm Exam 2

**How do I know
what to study?**

How do I know what to study?

Problem-Based Exams

- Lots of problems to solve
- Classes like *CHEM 105*, *CHEM 322*, *PHYS 135*, *MATH 125*.
- Do as much practice as possible.
- Do not neglect content, so review your lectures
- Know your equations.

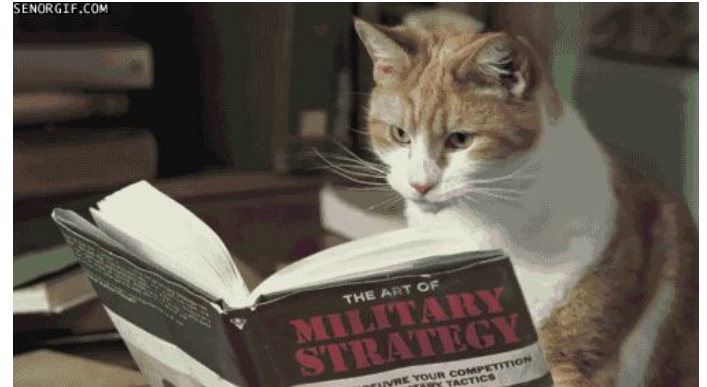
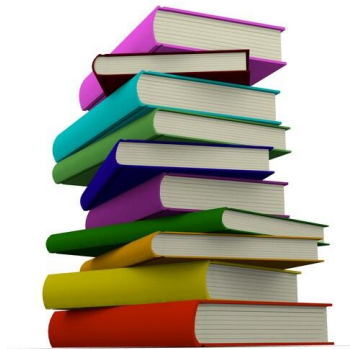
Multiple Choice/Fill In Exams

- Lots of content to memorize and understand, as some problems may be applied
- Classes like *BISC 120*, *BISC 312/320*, *BISC 325*, *PSYC 100*.
- Memorize using flashcards
- Divide up studying more than you would
- Use study groups with classmates to explain concepts to each other

How do I know what to study?

Open Note Exams

- Sometimes online; you'll have your notes but limited time to use them
- Classes like *QBIO 305* and *PSYC 274*
- Still study as you would a regular exam.
- Organize your notes and do practice problems with them so that you get used to accessing them.



Flashcards

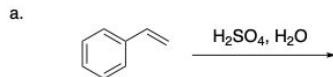


Can even make flashcards for concepts/problems you miss on practice exams or quizzes!!

Practice Problems

Practice Exam 8

1. Complete the reactions below by drawing **major** product or products. Indicate product stereochemistry where appropriate. Do not draw mechanisms or minor products.



1. Lewis Structures, VSEPR, and Polarity

a. Draw the Lewis Structure and give **i.** molecular geometries, **ii.** formal charges, **iii.** bond angles, and **iv.** identify whether the molecule has a dipole moment:

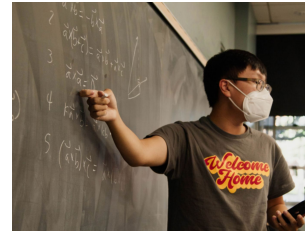


**How can
Supplemental
Instruction (SI)
help?**

How can Supplemental Instruction (SI) help?

- **Supplemental Instruction**

- Free program offered by USC Dornsife for most science courses
- SI Leaders will lead weekly review sessions and exam reviews before every midterm
- Great way to keep track with concepts, prepare for exams, and even get mentorship
 - SI Leaders review their worksheets with professors!



Tips for Maximizing SI

- Keep up with lectures and attend SI sessions regularly.
- Use SI sessions to review and clarify any challenging concepts.
- Mark each exam review session on your calendar.
- Prior to the exam review, study the content to ensure you know it coming in.
- After the exam review, focus on concepts that were particularly difficult.
- Don't hesitate to email your SI Leader if you have questions or need additional assistance.

Tips for Before, During, and After your Exams

Before your exam:

- Journal/bullet point/free write about your feelings about the exam and your performance
- Try to finish your content review 2 days before exam day
- Keep a list of topics that you know VERY WELL, KIND OF, and NOT AT ALL
 - Aim to have everything in VERY WELL, before your exam
 - Use the day before the exam to review the KIND OF and NOT AT ALL
- Practice affirmations – convince yourself of your capability!
 - Confidence and mindset can drastically change your performance
- Give your brain a break ~an hour before your exam



During your exam:

- Skip what you don't know and come back!
 - When you come back:
 - Eliminate what you can
 - Make educated guess – use related information as much as possible
- Close your eyes, take a few deep breaths, and try not to panic
- Use your learning/study styles to your advantage:
 - Mind maps
 - Hand gestures
 - Flashcards
 - Diagrams
 - Flowcharts



After your exam:

- Immediately after:
 - Gauge your feelings about your performance – important for later
- Forget that it happened, pat yourself on the back, and ***treat yourself!*** (do a dance, snacks, friends, adventures, etc.)
- After a day or two/when scores are out:
 - Review your exam and each incorrect answer:
 - Assess why you got it wrong
 - Gauge your expectations vs. your grade
 - How do you feel about this? Sit with your feelings
- Adjust your study schedule if necessary
 - Reach out to SI leaders, professors, and

THE LAST 5 MINUTES OF EXAM



Tips for Your BISC/CHEM Courses

Tips for Intro CHEM/BISC and Beyond

- If you can teach the concepts, you know them! Grab a friend and take turns explaining
- Write sample test questions
 - Try to view the content from the Professor/exam writer's perspective
- BISC: Highly memory-based so start studying early
 - **Consistency is key!**
- CHEM: Practice problem based, so make sure to keep up with the homework and do all sample exams, SI worksheets.
- Ask questions or seek answers as soon as a misunderstanding arises
- Figure out what kind of learner you are
- **Be gracious and kind to yourself!**

Questions?