STUDY SKILLS AND STRATEGIES FOR **SUCESS IN CHEMISTRY AND** SCIENCE COURSES IN GENERAL

DR. GABRIELA SMEUREANU



## SETTING GOALS FOR GRADES

IS YOUR GOAL □ SPECIFIC? □ MEASURABLE? □ ATTAINABLE? □ REALISTIC? □ TIME BOUND?

IF NOT, GO BACK AND REVISE YOUR GOAL TO MAKE SURE IT IS **SMART**.

Growth Mindset - YouTube



## USE STUDY GROUPS

"TWO HEADS ARE BETTER THAN ONE?"

THIS CAN BE ESPECIALLY TRUE WHEN IT COMES TO STUDYING. WORKING IN GROUPS ENABLES YOU TO:

- (1) GET HELP FROM OTHERS WHEN YOU'RE STRUGGLING TO UNDERSTAND A CONCEPT
- (2) COMPLETE ASSIGNMENTS MORE QUICKLY
- (3) TEACH OTHERS, WHEREBY HELPING BOTH THE OTHER STUDENTS AND YOURSELF TO INTERNALIZE THE SUBJECT MATTER.

HOWEVER, STUDY GROUPS CAN BECOME VERY
INEFFECTIVE IF THEY'RE NOT STRUCTURED AND IF GROUP
MEMBERS COME UNPREPARED. EFFECTIVE STUDENTS USE
STUDY GROUPS EFFECTIVELY.



# PLANNING AND ORGANIZATION

HTTPS://WWW.YOUTUBE.COM/WATCH?V=P60RN9JEAPG

**The 9 BEST Scientific Study Tips** 



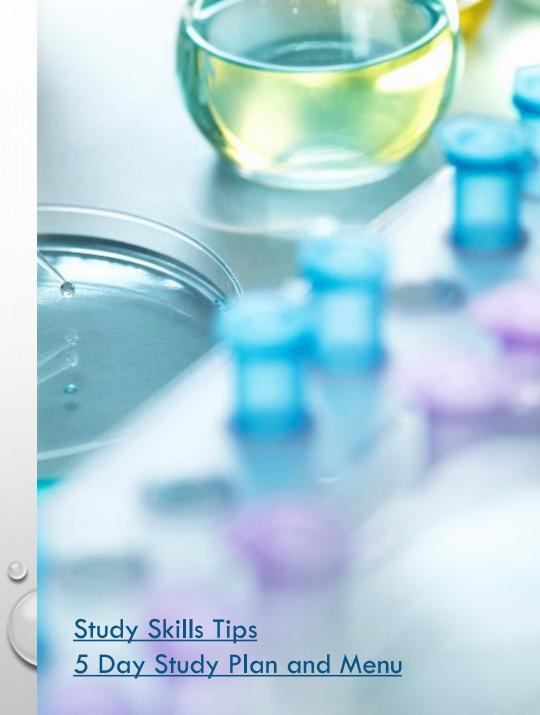
## MAKE A STUDY PLAN

HTTPS://WWW.YOUTUBE.COM/WATCH?V=AEI4K HYZRW

https://www.youtube.com/watch?v=ZFD4bnIRem0

Studying involves the following...

- Reading the textbook and taking notes
- Watching videos and taking notes
- Doing practice problems (best without notes; only use notes to check yourself)
- Creating questions and quizzing yourself
- Working through problems with a study buddy or group
- Reviewing, re-writing, and/or summarizing lecture or reading notes
- Formulating study guides and outlines
- Making flashcards and reviewing them
- Teaching others



## TIME MANAGEMENT

HTTPS://WWW.YOUTUBE.COM/WATCH?V=ZU3OI6E0XFC&LIST=PLAJCNGZ
FMODGYFVPSOPNHUAFVZSCA78D3&INDEX=4

HTTPS://WWW.YOUTUBE.COM/WATCH?V=LHFJVYZR-3G&T=3S

Pomodoro Technique for time management and Timer app

<u>Time Management Cheat Codes</u>



### **PROCRASTINATION**

HTTPS://WWW.YOUTUBE.COM/WATCH?V=2FT0DTFYBTU&LIST=P LAJCNGZFMODGYFVPSOPNHUAFVZSCA78D3&INDEX=5

HTTPS://WWW.YOUTUBE.COM/WATCH?V=1NBWFZZVJKO

<u>Procrastination Assessment and Prevention Tips</u>



## READING ASSIGNMENTS

HTTPS://WWW.YOUTUBE.COM/WATCH?V=DWX63EFIOK

A&LIST=PLAJCNGZFMODGYFVPSOPNHUAFVZSCA78D3

&INDEX=1

**SQ3R Reading System** 



## TAKING NOTES

HTTPS://WWW.YOUTUBE.COM/WATCH?V=W44PY
CEH0JC&LIST=PLAJCNGZFMODGYFVPSOPNHUA
FVZSCA78D3&INDEX=2

How to take Cornell Notes Learning Module
Creating Study Guides
Note taking examples



## **MEMORIZATION**

HTTPS://WWW.YOUTUBE.COM/WATCH?V=WNZ7HPOFE9O&LIST=PLAJCN
GZFMODGYFVPSOPNHUAFVZSCA78D3&INDEX=9

HTTPS://COLLEGEINFOGEEK.COM/SPACED-REPETITION-MEMORY-TECHNIQUE/



# FOCUS AND CONCENTRATION

HTTPS://WWW.YOUTUBE.COM/WATCH?V=TYAZUAI
OYUW&LIST=PLAJCNGZFMODGYFVPSOPNHUAFVZ
SCA78D3&INDEX=10

Freedom App to help with focus and concentration

Ambient Noise Tool for various tasks



## STUDYING FOR TESTS AND EXAMS

HTTPS://WWW.YOUTUBE.COM/WATCH?V=BQKCWRUEES0&LIST=P LAJCNGZFMODGYFVPSOPNHUAFVZSCA78D3&INDEX=6

HTTPS://WWW.YOUTUBE.COM/WATCH?V=DB1E8PM6O7Q&LIST= PLAJCNGZFMODGYFVPSOPNHUAFVZSCA78D3&INDEX=7

HTTPS://WWW.YOUTUBE.COM/WATCH?V=1BBAKD3AUSO&LIST= PLAJCNGZFMODGYFVPSOPNHUAFVZSCA78D3&INDEX=11

Test Prep Checklist
How and why to review returned tests



### **TEST ANXIETY**

HTTPS://WWW.YOUTUBE.COM/WATCH?V=4FSGWLWDSS8
&LIST=PLAJCNGZFMODGYFVPSOPNHUAFVZSCA78D3&I
NDEX=12

Mindfulness app free for CUNY students
Fighting Test Anxiety
You Can PASS tips to fight text anxiety



#### **ADDITIONAL STUDY SKILLS RESOURCES**

- STUDY SKILLS KIT (ALL INCLUSIVE STUDY TIPS AND TOOLS FROM USU.EDU)
- SPARK NOTES FOR CHEMISTRY
- ORGANIC CHEMISTRY HELP PAGE (VIDEOS, TUTORIALS, FLASH CARDS AND TUTORIALS)
- THOUHGTCO.COM FOR CHEMISTRY HELP
- THOUGHTCO.COM FOR BIOLOGY HELP
- BIOLOGY CONTENT RESOURCE PAGE



#### MORE RESOURCES









**QUICK GUIDE** 

**NOTE TAKING** 



### PREPARE TO TAKING NOTES

- READ BEFORE CLASS!!!
- REVIEW SYLLABUS AND COURSE SCHEDULE



#### THE PURPOSE OF TAKING NOTES

- NOTE TAKING KEEPS YOU FOCUSED DURING THE LESSON/LECTURE
- REMEMBER THE LESSON
- ENGAGING WITH THE MATERIAL FOR BETTER DEEPER UNDERSTANDING
- IMPROVES WRITING SKILLS (HELPS YOU BE MORE CONCISE AND TO STAY ON THE SPECIFIC SUBJECT)
- HELPS YOU FOCUS YOUR STUDYING
- NOTE: YOU HAVE ABOUT A 10-MINUTE ATTENTION SPAN,
   NOTE TAKING HELPS YOU REGAIN ATTENTION AND FOCUS



#### **GENERAL NOTE TAKING TIPS**



- UNDERLINE, CIRCLE, HIGHLIGHT KEY POINTS
- USE DIFFERENT COLORS
- DRAW DIAGRAMS, CONCEPT MAPS, ETC
- WRITE NOTES IN A MEANINGFUL FOR YOU, ORGANIZE, OUTLINE, SHORTHAND & SYMBOLS
- DON'T WORRY ABOUT GRAMMAR

#### **GENERAL NOTE TAKING TIPS**

- WRITE A SUMMARY OF THE TOPIC/LECTURE IN YOUR
   OWN WORDS
- HIGHLIGHT REPEATED AND/OR EMPHASIZED STATEMENTS
- DO NOT WRITE EVERYTHING, WRITE ONLY THE MAII KEY IDEAS THAT YOU CAN EXPAND ON FOR LATER (USE BULLET POINTS)
- LEAVE SPACE TO ADD MORE NOTES IN THE MARGINS (OR IN BETWEEN LINES)

#### **HOW TO USE YOUR NOTES**



- READ YOUR NOTES OFTEN TO STUDY
- READ YOUR NOTES TO IDENTIFY CHALLENGING CONTENT
- USE YOUR NOTES TO ASK QUESTIONS DURING OFFICE HOUR, FUTURE LECTURES, RECITATION, TUTORING AND/OR GROUP STUDY SESSIONS
- USE YOUR NOTES TO HELP YOU FOCUS ON SPECIFIC CONCEPTS WHILE READING THE TEXTBOOK AND WATCHING VIDEOS
- TAKE A FEW MINUTES TO READ YOUR NOTES BEFORE YOU LEAVE CLASS, OR AT THE END OF THE VIDEO, TO SUMMARIZE THE LESSON

#### **HOW TO USE YOUR NOTES**

- CREATE A VIEW, FORMING OPINIONS ABOUT WHAT YOU LEARN (MAKING IT YOUR OWN)
- USE NOTES TO ANALYZE WHAT YOU ARE READING OR WATCHING (HELPS YOU THINK)
- STUDY NOTES, FROM THE SAME DAY AND THE PREVIOUS LESSON TO CONNECT THE LESSONS/LEARNING
- PRACTICING STRUCTURE OF NOTE TAKING SO THAT YOU HAVE LOGICAL FLOW OF INFORMATION (USE HEADINGS AND SUBHEADINGS AND BULLET POINTS)
- REVISE YOUR NOTES TO ADD MORE DETAILS ABOUT MISCONCEPTIONS, CLARIFICATION, EXAMPLES
- MATH AND SCIENCE -> DO NOT ERASE, USE STRIKE THROUGH INSTEAD EX MISTAKE

## HANDWRITTEN VS. TYPED (WORLD PROCESSED) NOTE TAKING

- SOME STUDIES SUGGEST THAT HANDWRITTEN NOTES ARE BETTER THAN TYPED (WORD PROCESSED) NOTES FOR BETTER RETENTION AND FOCUS.
- WRITING NOTES BY HAND IS ALSO QUICKER, FOR MANY, THAN TYPING.
- WHETHER HANDWRITTEN OR TYPED NOTES ARE BETTER IS STILL UP FOR DEBATE
- TABLETS AND IPADS OFFER GREATER OPTIONS FOR PORTABILITY AND TRANSFERABILITY OF NOTES
- SCREEN SHOTS ARE GREAT FOR COPYING DIAGRAMS (MARK-UP)



## VIDEO NOTETAKING TIPS...



#### VIDEOS ARE A FORM OF SPEECH/PRESENTATION

#### **SPEECHES SERVE 1 OF 3 PURPOSES**

- TO ENTERTAIN
- TO INFLUENCE
- TO INFORM
- YOUR LECTURE VIDEOS ARE TO DELIVER INFORMATION
- DO NOT LOOK FOR YOUR PROFESSORS TO MAKE YOU, LAUGH OUT LOUD, ETC.

#### VIDEO NOTETAKING TIPS CONT.

- WATCH THE VIDEO LECTURE TO GATHER INFORMATION
- EXPECT TO TAKE NOTES IN THE SAME AS IN-PERSON LECTURE, ALREADY DESCRIBED
- EXPECT TO PUT IN THE TIME
- A 30-MINUTE VIDEO CAN TAKE YOU ABOUT AN HOUR TO WATCH AND TAKE NOTES
- EXPECT TO RE-WATCH YOUR VIDEOS
- JUST LIKE YOU SEE DIFFERENT THINGS EACH TIME YOU WATCH YOUR FAVORITE MOVIE, YOU WILL LEARN SOMETHING NEW RE-WATCHING LECTURE VIDEOS
- PACE YOURSELF, DON'T WATCH EVERY VIDEO ALL AT ONCE!

#### **FURTHER REFERENCES**

- HTTPS://CAREER-ADVICE.JOBS.AC.UK/CAREER-DEVELOPMENT/TOP-TEN-TIPS-ON-NOTE-TAKING/
- HTTPS://WWW.STUDENT.UNSW.EDU.AU/NOTETAKING-TIPS
- HTTPS://WWW.UMFK.EDU/STUDENT-SUCCESS/ACADEMIC-SUPPORT/NOTES/
- HTTPS://THECONVERSATION.COM/7-TIPS-ON-HOW-TO-TAKE-BETTER-NOTES-120144
- HTTPS://EN.WIKIPEDIA.ORG/WIKI/NOTE-TAKING