STUDY STRATEGIES FOR CONTENT-BASED COURSES
Passive vs. Active Study Strategies
Common Passive Study Strategies

- Highlighting textbooks & copying everything
- Reading notes = surface learning
- Using the same study strategies
- Studying everything
- Studying to pass current exam
- Cramming for an exam
Active Study Strategies to Try:

- Creating a study guide
- Taking practice tests
- Studying notes in novel ways
- Making flashcards
- Using memory strategies
- Explaining course material to another person
Benefits

→ Boosts learning & improves performance

→ Shows you what you know & what you don’t know

→ Gives you a reason to practice the most critical information that will appear on the actual exam

● ***Create Study Guides***

● Create flashcards, ask a friend to quiz you

● Use the “Muddiest Points” technique

● Identify important concepts
## Making The Most of Your Notes

<table>
<thead>
<tr>
<th><strong>Draw and label pictures</strong></th>
<th><strong>Write it out</strong></th>
<th><strong>Come up with a mnemonic device or story</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Find a picture or draw one that represents the material and color it</td>
<td>• Color code - be creative</td>
<td>• Studies have shown that connecting material to our own life helps with retention</td>
</tr>
<tr>
<td>• Include vocabulary, description, and examples</td>
<td>• Strengthen your problem-solving skills</td>
<td>• Make memorable mnemonics</td>
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<td></td>
<td>• Break down a large concept into small sections</td>
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**Powerful Flashcards**

1) Retrieve (don’t cheat!)

2) Re-order (shuffle and interleave)

3) Repeat (at least 3 times)
Short Term Memory

- MNEMONIC technique
- Say it out loud/Teach others
- Test yourself
- Make it meaningful
- Take breaks between studying

Long Term Memory
DUAL CODING

Combining

Visuals + Words with Laptop

Summarise

Describe

Information in 2 different ways

Look for links

Heals learning & memory

How does the visual represent the text?

How does the text describe the visual?
STUDY STRATEGIES FOR NUMERICAL COURSES
Practice is KEY!

1. Complete Homework Assignments
2. Seek out additional problems
3. Make sure you can complete problems on your own
4. Practice problems that combine concepts
Use your resources

• Reach out to your instructors when you have questions
• TA’s are great resource as well
• If you are confused or missed a concept
  ○ Attend office hours
  ○ Find where in the textbook that material is discussed
  ○ Find outside resources - Google, YouTube videos, etc.
  ○ Don’t forget to utilize campus tutoring & study group programs, etc.
Write Everything Out

- Organize your problems
- List all of the given information from the equation or problem
- List everything you are asked to find
- Write out all equations that might apply
Be Able to Explain “Why?”

- How can this material apply to prior & future knowledge?
- Understand the foundational purpose of a given theory or equation
- Identify the relationships between different topics
- What is the objective or goal for learning this theory or equation?
- Can you explain “Why” this material matters?
## Collaborative Learning

<table>
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<tr>
<th>Let others teach you</th>
<th>Form a study group</th>
<th>Peer support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other students might have insights or strengths that are your weaknesses</td>
<td>Leads to deeper learning</td>
<td>Use your peers as a resource</td>
</tr>
<tr>
<td>You get different perspectives</td>
<td>Increases critical thinking and problem-solving skills</td>
<td>Ask others how they understood the materials</td>
</tr>
<tr>
<td></td>
<td>Activates active learning through participation in group discussion</td>
<td>Learn alternative techniques and perspective</td>
</tr>
</tbody>
</table>
TEST-TAKING TECHNIQUES
Practice booting up the proctoring system

Be familiar with the technical help options before the exam

Ask your professor what you are allowed and not allowed to have during the exam

Find a quiet spot to take the exam

If you have a technical difficulty, take screenshots so you can send an email to your professor

If you get stumped, move on and come back!
Multiple Choice & True False

If more than one answer seems correct, ask yourself:

☐ does the answer you’re considering completely answer all parts of the question?

☐ if you think back to your lecture notes, which answer makes the most sense?

Look for clue words and numbers

☐ Underline familiar words/ phrases from the textbook or lectures

☐ Be careful answering questions that have the following wording:
  ☐ always, never, all, must
  ☐ seldom, generally, tend to, probably, usually
Problem Solving

MEMORIZATION - APPLICATION SKILLS

- Use a pencil
- Jot down any formulas you will need when you start your exam
- Make sure you understand the problem
- Show all your work step-by-step
  - Check your answers
  - Box around your answers
- Don’t leave anything blank
Short Answers/Essays

➢ Read instructions *carefully and identify* what the question is asking you to complete
  ○ EX: Compare and contrast, Justify, Summarize, etc.
➢ Take a short pause to plan your answer
➢ Balance argument and evidence
➢ Be as specific as possible
➢ Focus on course content!
Fill in the blank

- Answer question you know first
- This style of testing is testing for knowledge of details and vocabulary
- Answer every question to the best of your ability

OPEN BOOK

- Create a cheat sheet
- Have everything closed on your desktop
- Study and prepare just like any other exam
DECREASE TEST ANXIETY
Stress produces a hormone called CORTISOL.

Too much cortisol can hinder the ability of the Hippocampus to recall memories.

The hippocampus is the center for emotion & memory.

Crucial to learn how to manage stress & anxiety.
WHAT CAUSES TEST ANXIETY?

- Fear of Failure
- Learning / Testing Difficulties
- Perfectionism
- History of Poor Test Taking Skills
- Other?

Many things cause test anxiety
MANAGING YOUR STRESS

- Embrace your nerves
- Talk it out/Recognize your emotions
- Pinpoint the source
- Try positive affirmations
- Remind yourself that school isn’t everything
- Stay balanced
Tips to Control Nerves

- **Calm yourself through meditation or relaxation exercises:**
  
  Meditation helps you keep a calm, composed mind in stressful situations, such as exams. Implement a relaxation exercise that will disengage your mind from test anxiety and stress.

  **Try this Grounding Technique:**

  **Name:**
  - 5 things you see
  - 4 things you can feel
  - 3 things you can hear
  - 2 things you can smell
  - 1 thing you can taste

- **4-4-4 Breath Meditation**

  **Take 4 seconds to INHALE through your nose, hold for 4 seconds and take 4 seconds to EXHALE**

- **Utilize your support system**

- **Try a meditation video or app**

- **Park Your Worries**
- Don’t skimp on sleep
- Good sleep increases concentration & productivity
- If you’re still tired, take a quick power nap to recharge
- Learn about sleep cycles and what your body needs to feel rested after a nap or sleep
Meals & Snacks

○ Eat foods that will digest slowly and give you longer energy
○ Balance what you are eating and try to avoid unhealthy food
○ Prepare a bag of snacks the night before

Stay Hydrated

● Balance your coffee intake with an equal (or more) amount of water
● Drink water throughout the day
GET ACTIVE

PHYSICAL
Squeeze in 5-30 minutes work-out time to increase blood flow through the body
Try stretching, short walks, push-ups, jumping jacks, dancing, etc

MENTAL
The mind needs a break too!
• Meditate to increase relaxation
• Funny Videos
• Crank up the music
Questions / Comments

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Website: https://tilt.colostate.edu/learning/tiltWorkshops/

Thank you