General Tips

Get regular sleep
Memory consolidation (the process by which memories become more permanent and resistant to forgetting) occurs during sleep.

Go to review sessions/office hours
Your professors want you to learn the material. We want to help you do that. Really.

Preparing for exams happens all semester
To really reduce the stress before finals, keep up with work and study throughout the semester. You are not going to learn 12 weeks worth of material in one week.

Get help
Ask for tutors if you are having problems. Check the Dean of Students office for additional support and resources.

References

1. Mayer et al., 2005
2. Mayer et al., 2008
3. Bloom & Lamkin, 2006
5. Vlach et al., 2008
6. Roediger & Karpicke 2006

For a general overview, see Roediger, McDermott, and McDaniel (2011) – (email for a pdf)

Questions? Contact Jen:
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Which is best?

**Static Images or Animated Videos?**
Static media are better because animated visuals require more processing and present more extraneous details.¹

**Low Interest Details or High Interest Details?**
High interest details capture attention, and because of limited cognitive resources, can impair learning of core topic.²

**Making Your Own Mnemonic or Using a Mnemonic Provided?**
Generation (making your own) is better. Generation is more difficult and requires more attention. This results in stronger memory!³

**Chunking or Interleaving?**
Imagine you have to learn to recognize different painters’ styles for art history. Chunking would mean grouping all the works together by one artist, and interleaving involves mixing the works in random order to study. Interleaving is better!⁴

**Cramming Before an Exam or Spacing Study Sessions?**
Spacing is better – even when total study time is the same!⁵

Repeated Study or Taking a Test?
Taking a test is better. When you take a test, you are practicing the same skills and retrieval you will be using on the final test.⁶

**Retrieval Practice**

<table>
<thead>
<tr>
<th>Indirect Effects of Testing</th>
<th>Direct Effects of Testing</th>
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<tbody>
<tr>
<td>• Study regularly</td>
<td>• Taking a test changes how you learn</td>
</tr>
<tr>
<td>• Learn from feedback</td>
<td>• Intermediate tests make it easier to learn new information</td>
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<tr>
<td>• Self-assessment: if you don’t understand it, you won’t remember it -- testing is a great way to make sure you understand.</td>
<td>• Testing is harder -- difficulty results in better memory</td>
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</tbody>
</table>

Testing is harder than re-reading, and “desirable difficulties” help learning because they provide challenges that result in stronger memory.⁹

**The Importance of Comprehension**

Make sure you understand the material fully – if you cannot explain it in your own words right after you study, you probably won’t remember it days or weeks later! Remembering and understanding involve integrating with what you know.

**Not understanding = Not remembering**

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**Applied Tips!**

A recent study found that when students were asked questions BEFORE a lecture, they learned better – even if they almost never got the answer right.

So… do practice questions in your books and ask professors for old exams.

**Flash Cards**
Use them to test yourself, and go both ways.

Make big stacks so that you are incorporating spacing.

Do not take cards out when you think you know it – continue testing yourself.⁷

**Scheduling Your Study Time**
Spacing can reduce “feeling of knowing” – thus leading to more study. Research shows that students tend to over-estimate how well they know material and stop studying too soon.⁸

Start preparing for exams several weeks in advance. Review notes, take practice exams, and distribute your study sessions over time.