1. SPACED LEARNING

“Spaced Study” is studying academic material in multiple sessions, with a day or more in between. There is very extensive research evidence suggesting that our brains need time to “consolidate” information we have learned. For example, after reading or listening to a lecture, especially when we review it and quiz ourselves about it more than once later on, memory traces (or mental representations in long term memory) are strengthened, given meaning, and connected to our prior knowledge & memories. You don’t necessarily need to study for a long period of time in each session: your review sessions could be as short as 10 minutes! This strategy requires some “time management”: see if you can schedule multiple study sessions ahead of exam or quiz dates, with some days in between.

2. RETRIEVAL PRACTICE

Long-term retention requires practice retrieving information from memory. When we listen to lectures or read & re-read texts we are receiving “input,” but when we take an exam we’re expected to retrieve that input and practice “output.” Also, when we quiz ourselves we discover what we know & don’t yet know. Examples include:

1. Take practice quizzes or tests. Or, create your own quiz: what questions do you think your prof might ask about the material?
2. Teach someone else: explaining a concept to your roommate, or even your water bottle, helps you understand it far more deeply, & identify gaps in your understanding.
3. Create a mind map from memory: create a simple visual representation of the main concepts and how they are related. Then, check your notes or text to see if you have missed any key points.
4. “Cover and Recite”: To review material from a textbook, read a heading while covering up the text below it. Try to recall all the important points made in that section. Then check to see if you missed anything.
5. Preview text chapters before your more careful read.

3. LEARNING STYLES AND SENSES

Studying through more than one sensory mode (e.g., visual, auditory, kinesthetic) helps create multiple connections or associations to that material in different parts of the brain. E.g., besides reading a text and listening to lecture about that material, try reciting the important parts out loud, or even—if you’re daring, experiment with dancing or acting or drawing it!

4. SLEEP

There is overwhelming research evidence of the absolutely essential role of sleep in consolidating memories, or moving information into long-term memory. When preparing for an exam, make sure you get adequate sleep the night before (even better, the week before).

5. FOCUSED & DIFFUSED THINKING

Our understanding of a concept, and our ability to integrate it with other memories (or create multiple associations to it) is enhanced by taking a break after a period of focused studying. E.g., after reading a section of a biochem text, take a short break to do a more “diffuse” task, such as unloading the dishwasher, going for a short walk, etc.
6. INTERLEAVING

“Interleave” different subjects or types of problems when you study. For example: when you’ve been learning how to solve various math problems, study for the exam by mixing up different kinds of practice problems. It’s often more helpful to study more than one subject during a study session than to spend long periods of time (perhaps an hour or more) studying just one subject.

7. CREATE A STUDY SCHEDULE

Start time: ____:____ am/pm
I will work for _____ minutes
Subject: ___________________
My task broken into smaller parts:
____________________________________________________
____________________________________________________
____________________________________________________
End time: ____:____ am/pm
I will take a break by:
For _____ minutes

Start time: ____:____ am/pm
I will work for _____ minutes
Subject: ___________________
My task broken into smaller parts:
____________________________________________________
____________________________________________________
____________________________________________________
End time: ____:____ am/pm
I will take a break by:
For _____ minutes

Start time: ____:____ am/pm
I will work for _____ minutes
Subject: ___________________
My task broken into smaller parts:
____________________________________________________
____________________________________________________
____________________________________________________
End time: ____:____ am/pm
I will take a break by:
For _____ minutes

Priorities:

Tasks:

Sources