



# PPRRR: Preview, participate, read, recall, review

This handout offers a strategic and systematic approach to reading in Natural Sciences courses.

## Preview

Take some time before each class – the night before, or morning of – to preview the day's lecture material. You might be surprised how much 10 minutes of previewing will dramatically affect your level of understanding during lecture.

Look over text sections for the next lecture.  
Read the introduction, sub-headings, words in

bold-faced type, first sentences of each paragraph, diagrams, charts, and conclusion or summary.

After previewing, ask yourself: What is this mainly about? What do I expect to be the main points brought up in lecture? If time allows, look over the previous lecture's notes. You can do this while waiting for class to start.

## Participate

Participate during lecture by actively listening and taking notes. Consider class as time for learning – not just time for recording notes that you will study later.

Carefully listen and take notes on what the professor says, not just what they write down. Leave space to add notes from the textbook and

discussion sessions. Put question marks beside items you need to look up or ask about in the next discussion section.

Try not to be frustrated or resigned if you don't understand what's being presented. Do your best to stay with the lecture.

## Read

As soon as possible after each class (at most, within 24 hours), review the lecture notes and read textbook sections that were covered in the lecture. Read sections of the text with lecture notes available, referring to specific parts of your notes

when possible. Read only one small section at a time, in an active mode. Ask yourself at the end of each reading, "What was that about?" or "What new information did that give me?" Follow each section with a recall exercise.

## Recall

Immediately after reading each small section of the text, practice recalling that information. Research shows that we forget about 40-50% of what we read within about 15 minutes unless we take measures to recall it immediately.

text to your notes when appropriate. Use different colored pens for lecture and text notes.

Add information from the text to your lecture notes to fill in gaps from lecture, clarify definitions & concepts, and elaborate on points brought up in class. Add diagrams, charts, and figures from

Keep a collection of flash cards or list of key terms and their definitions. Add to it immediately after readings. Highlight main concepts and key terms in your text. Select practice problems from the text pertaining to the reading. Work through these to test your understanding of the material.

## Review

Set aside time each week to review and summarize the reading material and your notes. Review your lecture/text notes, flashcards, lists, charts, diagrams, and problem sets. Reorganize the material so that it makes sense to you. Talk over concepts with your study partners. Ask questions, but also interpret the material. Listen to their

descriptions to see how their details differ from yours. Synthesize material from different chapters before the exam by making concept maps, charts, and creating difficult test questions. Visit your TA/professor's office hours to clear up questions.

