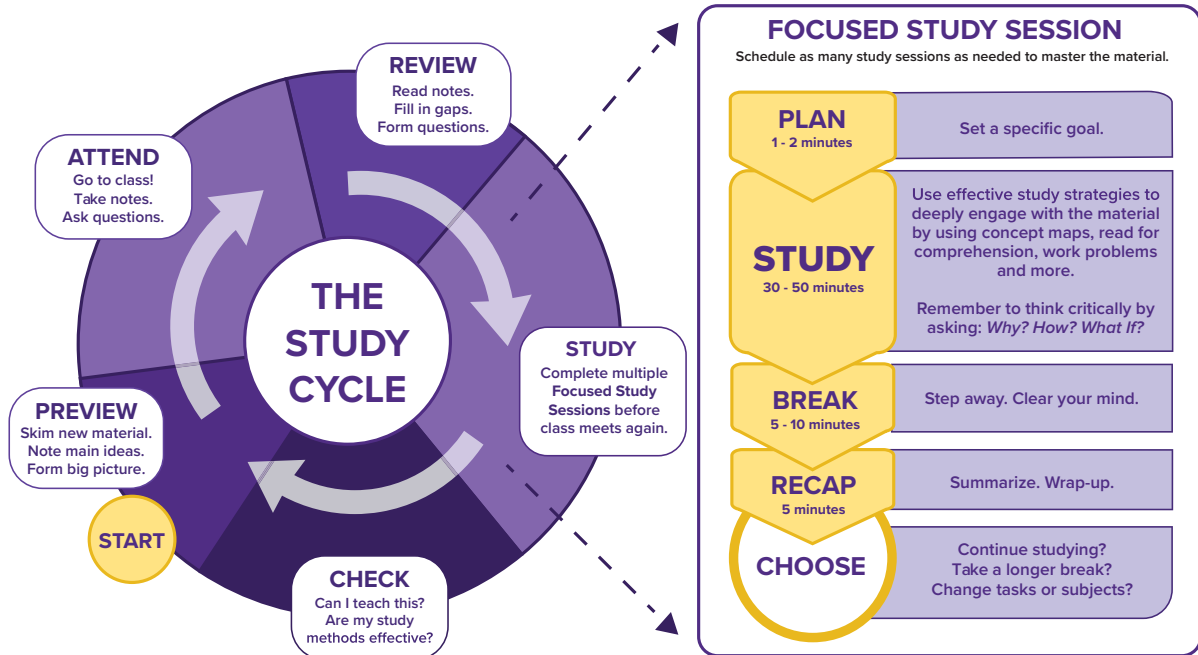


Study Cycle for Problem-Based Courses

Use this Study Cycle to get the most out of in-class time and structure your out-of-class time for problem-based courses.



Adapted from Frank Christ's PLRS system.

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PREVIEW

- Read Chapter Table of Contents, Introduction, and Summary.
- Check Syllabus for Class Topics. Print class notes or slides. Take notice of learning objectives and new concepts.

ATTEND

- Take notes, especially on “how” and “why” and relationships between ideas or concepts.
- Participate in discussions, group work, and/or clicker questions.

REVIEW

- Fill in any gaps.
- Annotate with notes on what is clear/muddy, and identify key terms using color coding or symbols.

STUDY (FSS)

Learn Foundations FIRST

- Read the text, watch videos, annotate notes—Work to explain concepts in words and visuals (not just in numbers and equations).
- Rework examples from class and the textbook—Learn to identify different problem types and the meaning behind each step of the process.
- Attend office hours, Supplemental Instruction, tutoring, or other services—Use resources to enhance learning.

THEN Practice for Independence

- Start with problems that address one concept at a time. If assigned problems are too complex, start with simpler problems. Adjust your approach, as needed.
- Master each problem type. Keep practicing until hints, examples, and other aides are not needed.
- Review missed problems for why the answer was wrong.

CHECK

- Simulate the test environment. (No hints. No help. Timed.)
- Mix up problem types and solve complex problems.

To explore any area in more detail, schedule an academic coaching session by visiting our website.

CAS Review Ideas



After attending class, you need to review your notes. This step of the Study Cycle is done before you study the material from the lecture, and before the next class. Often, the sooner you review your notes, the better since the lecture is fresh in your mind. Here are a few tips:

- Fill in any gaps. Sometimes it's hard to catch everything you need in class. If possible, try to fill in any gaps you missed during class as soon as you can. This will help you have a complete set of notes and spend less time going through other resources to fill in those gaps.
- Annotate your notes. This will help you evaluate your comfort level with the material, and then prioritize what is most needed to be focused on during your study time. What is muddy? What are the key concepts/terms?

This can look like a lot of different things. Some students like to color code their notes. Others prefer a symbol system such as metacognitive markers:

- Elaborate on your notes. Compare the information to what you already know. Question what you have written in your class notes.
- Rewrite your class notes in an outline format that shows connections and relationships.

Examples of Metacognitive Markers



Murky Concept



Important

Key Terms

(Underline or Highlight)



Mastered Concept



Process or Cycle

Focused Study Sessions Core Strategies

- Read the textbook chapter speaking key phrases aloud to enhance comprehension and memory, focus on visuals. Connect textbook chapter with lecture notes.
- Make notecards or charts for terms; create visual representations of information.
- Think Critically: Ask “Why”, “How” and “What If” questions.
- Get help through faculty office hours, SI, or tutoring.
- See specific strategies for your course in the STUDY section on the reverse side of this page.

Reading Strategies

Pre-Reading

Build the big picture and identify purpose

- Preview the chapter: Table of contents, Chapter Introduction, Chapter Summary, Subheadings/Visuals/Key Terms
- Chunk the chapter: Consider what you need to read and divide the text into manageable sections
- Define a purpose for reading: Turn subheadings into questions, and Articulate why this information is significant

During Reading

Be active to stay focused

- Paraphrase or take notes
- Use metacognitive markers (chart above)
- Answer embedded questions

Post-Reading

Check comprehension

- Answer the subheading question you created
- Answer book questions at the end of sections or the chapter
- Identify big/key ideas and write them in your own words
- Make a concept map-focus on relationships amongst information
- Log example problems
- Connect to lecture notes