

How to Learn in This Course

CS 5010 Program Design Paradigms
“Bootcamp”
Lesson 0.2



Lesson Objectives

- At the end of this lesson you should be able to
 - explain how the "flipped classroom" model works
 - understand how each module is organized
 - explain how to find your learning objectives for each lesson
 - understand how homeworks are assigned and graded

It's not calculus

- We want you to write **beautiful** programs
- It's not enough to get the right answers
- It's about **design**— which means making your program readable and modifiable by humans
- This includes documenting your program
 - so the TA can understand it
 - so a future programmer can understand and modify it

The "Flipped Classroom"

- The course consists of 13 modules, numbered 0 through 12.
- Each module runs from Monday to Sunday
- Each module consists of
 - online materials
 - a 2-hour classroom meeting
 - a problem set

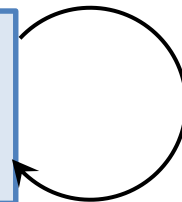
Online Materials

- The materials for each week will be posted online.
- This will consist of a set of video lectures and a reading assignment
- This material replaces the usual 3-hour lecture
- ***You will be responsible for studying this material before you come to class.***

Organization of a Lesson

- Each module will have a copy of the Course Map to show you where the lessons of this module fit into the course
- Each lesson will have "learning objectives" to give you an overview of what you should be learning in the lesson
- Lessons typically consist of PowerPoint slides (sorry!), sometimes along with some videos.

We try our best to liven up the PowerPoint with boxes, colors, and animations.



like this!

Lesson Exercises

- Lessons may also include a few short exercises.
- We strongly urge you to do these exercises, since they give you a quick way of checking your understanding.
- In some cases the exercises contain new material, so you won't get the whole story unless you do the exercises.

How to study the materials

- Practice active reading
 - DON'T SKIM!
 - read every word carefully
 - read with pencil in hand
 - jot down questions as you go along
 - if there's something you don't understand, STOP.
 - re-read the slide
 - replay the video
 - ask a question on Piazza
 - if you don't come to class with a question, you haven't read closely enough!!

The classroom meeting

- The classroom meeting will be devoted to
 - review of the previous topics, as needed
 - in-class exercises and other enrichment on this week's materials
 - questions and answers.
 - you can ask the instructor questions, but the instructor may ask you questions also.

The Weekly Problem Set

- Problem Sets are assigned weekly.
 - they will come out on Monday and be due at 6pm local time the following Monday.
 - familiarize yourself with the homework policies and deliverables, on the course web page.

Problem Sets take a lot of work

- They are designed to take about 20 hours to do.
- Organize your time accordingly.
- Ask questions early
 - on Piazza
 - during TA office hours
 - in class

Homework policies

- The course web site contains detailed instructions on what you must turn in and how you must do it. Go study it.

Codewalk

- Problem Sets are due on Monday at 6pm local time.
- Sometime during the week, you will be examined orally on your solution for about 15 minutes.
- This is called "codewalk."
- You will have your codewalks in groups of about 4 students.
- We will ask you to state your preferences for the scheduling of your codewalks. The mechanism for doing this will be announced later.

Grading Criteria

- Your solution will be graded on its
 - correctness
 - quality of design
 - adherence to our coding and documentation standards
 - appropriate use of tools & techniques
 - your ability to explain your program and your design decisions
- The details, including a description of our grading scale, is on the web site. Go read it!

Summary

- You should now be able to
 - explain how the "flipped classroom" model works
 - understand how each module is organized
 - explain how to find your learning objectives for each lesson
 - understand how homeworks are assigned and graded

Next Steps

- If you have questions about this lesson, ask them on Piazza
- Go on to the next lesson