COS 126 Roadmap

Course website

Need details? Go to www.princeton.edu/~cos126. ← bookmark this page!

- Syllabus.
- Meetings.
- Lectures.
- Assignments.
- Precepts.
- Exams.
- Help!

cs.princeton.edu

COS126 **Syllabus** Meetings Lectures Precepts Assignments Exams Help!

SYLLABUS

Description. This course is an introduction to computer science in the context of scientific, engineering, and commercial applications. The goal of the course is to teach basic principles and practical issues, while at the same time preparing students to use computers effectively for applications in computer science, physics, biology, chemistry, engineering, and other disciplines. Topics include: programming in Java; hardware and software systems; algorithms and data structures; fundamental principles of computation; and scientific computing, including simulation, optimization, and data analysis.

Prerequisites. None.

Video lectures. Available online.

Class meetings. Class meetings are held twice per week, on Tuesdays & Thursdays.

Precepts. Precepts meet twice a week, on either Tuesdays & Thursdays or Wednesdays & Fridays.

Required reading. R. Sedgewick and K. Wayne, *Computer Science: An Interdisciplinary Approach*, Addison–Wesley Professional, 2016. ISBN 978-0134076423. We will be referencing this text all semester. The lectures are based on its contents. (Labyrinth)

STAFF

Below you will find our contact information, but please keep in mind that it is *almost always* more appropriate to post your question on Piazza rather than emailing an individual staff member.
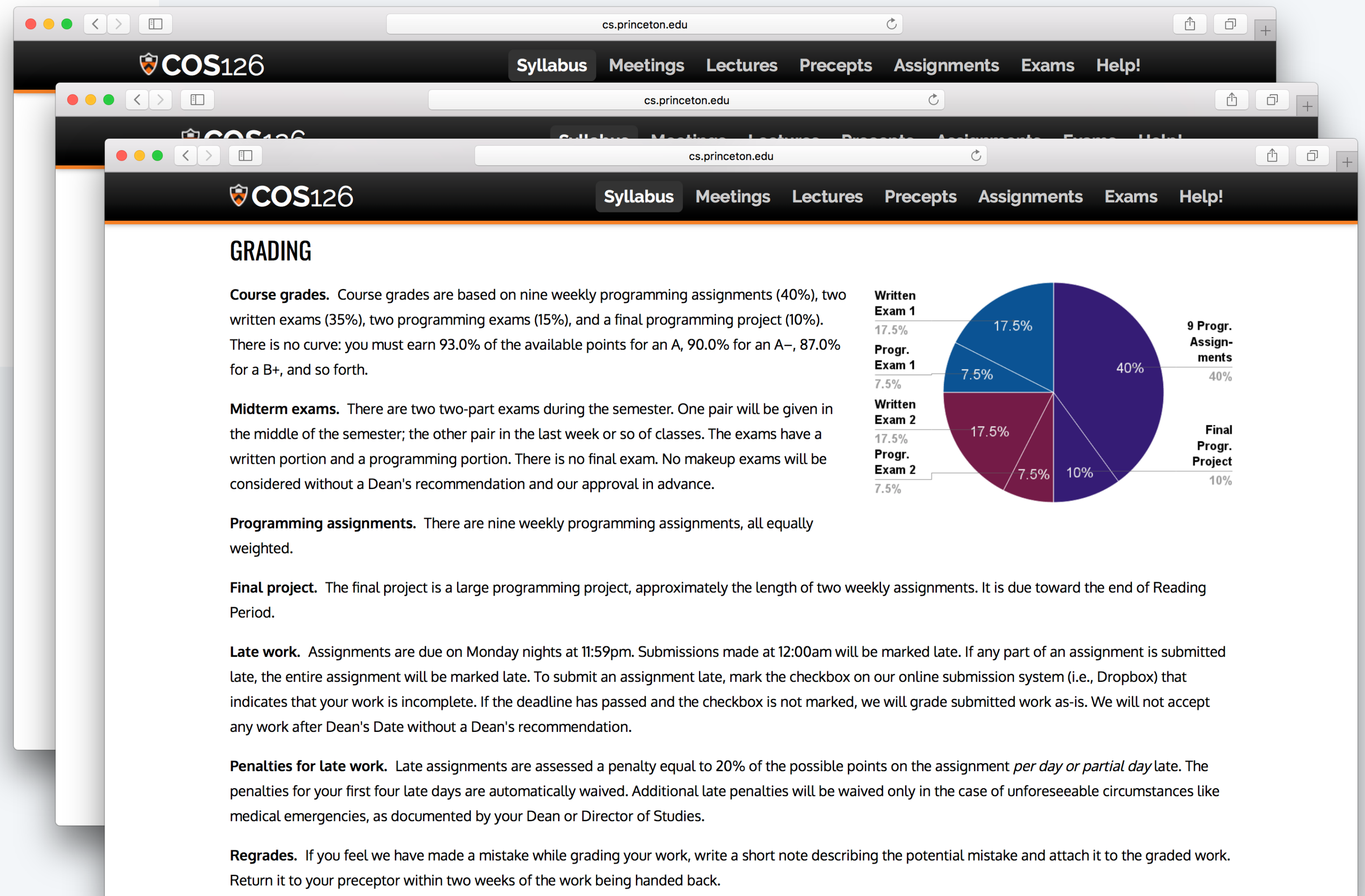
Important note: *We do not use BlackBoard* (except to post grades).

Syllabus

A contract between you and us.

- Front page of website.
- *Read it carefully.*
- General information.
- Grading.
- Collaboration policy.

GRADING

Course grades. Course grades are based on nine weekly programming assignments (40%), two written exams (35%), two programming exams (15%), and a final programming project (10%). There is no curve: you must earn 93.0% of the available points for an A, 90.0% for an A−, 87.0% for a B+, and so forth.

Midterm exams. There are two two-part exams during the semester. One pair will be given in the middle of the semester; the other pair in the last week or so of classes. The exams have a written portion and a programming portion. There is no final exam. No makeup exams will be considered without a Dean's recommendation and our approval in advance.
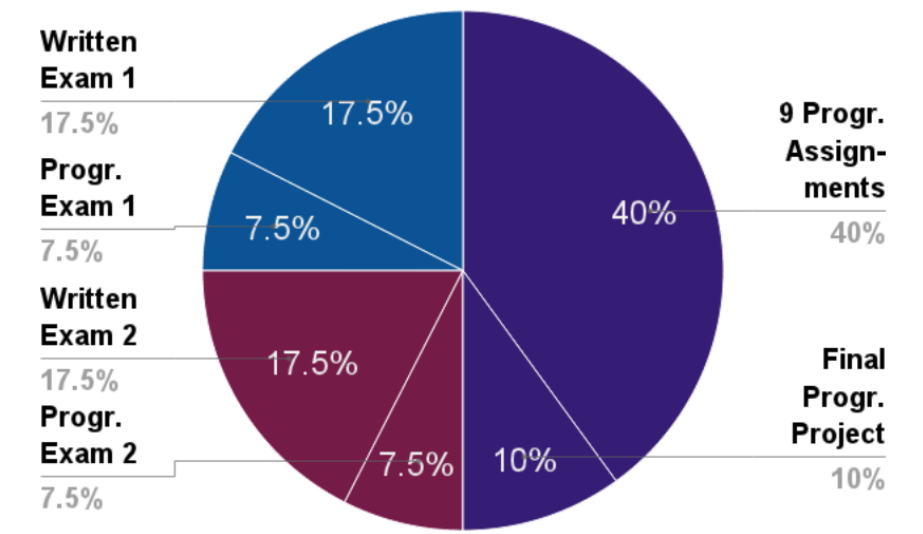
Programming assignments. There are nine weekly programming assignments, all equally weighted.

Final project. The final project is a large programming project, approximately the length of two weekly assignments. It is due toward the end of Reading Period.

Late work. Assignments are due on Monday nights at 11:59pm. Submissions made at 12:00am will be marked late. If any part of an assignment is submitted late, the entire assignment will be marked late. To submit an assignment late, mark the checkbox on our online submission system (i.e., Dropbox) that indicates that your work is incomplete. If the deadline has passed and the checkbox is not marked, we will grade submitted work as-is. We will not accept any work after Dean's Date without a Dean's recommendation.

Penalties for late work. Late assignments are assessed a penalty equal to 20% of the possible points on the assignment *per day or partial day* late. The penalties for your first four late days are automatically waived. Additional late penalties will be waived only in the case of unforeseeable circumstances like medical emergencies, as documented by your Dean or Director of Studies.

Regrades. If you feel we have made a mistake while grading your work, write a short note describing the potential mistake and attach it to the graded work. Return it to your preceptor within two weeks of the work being handed back.
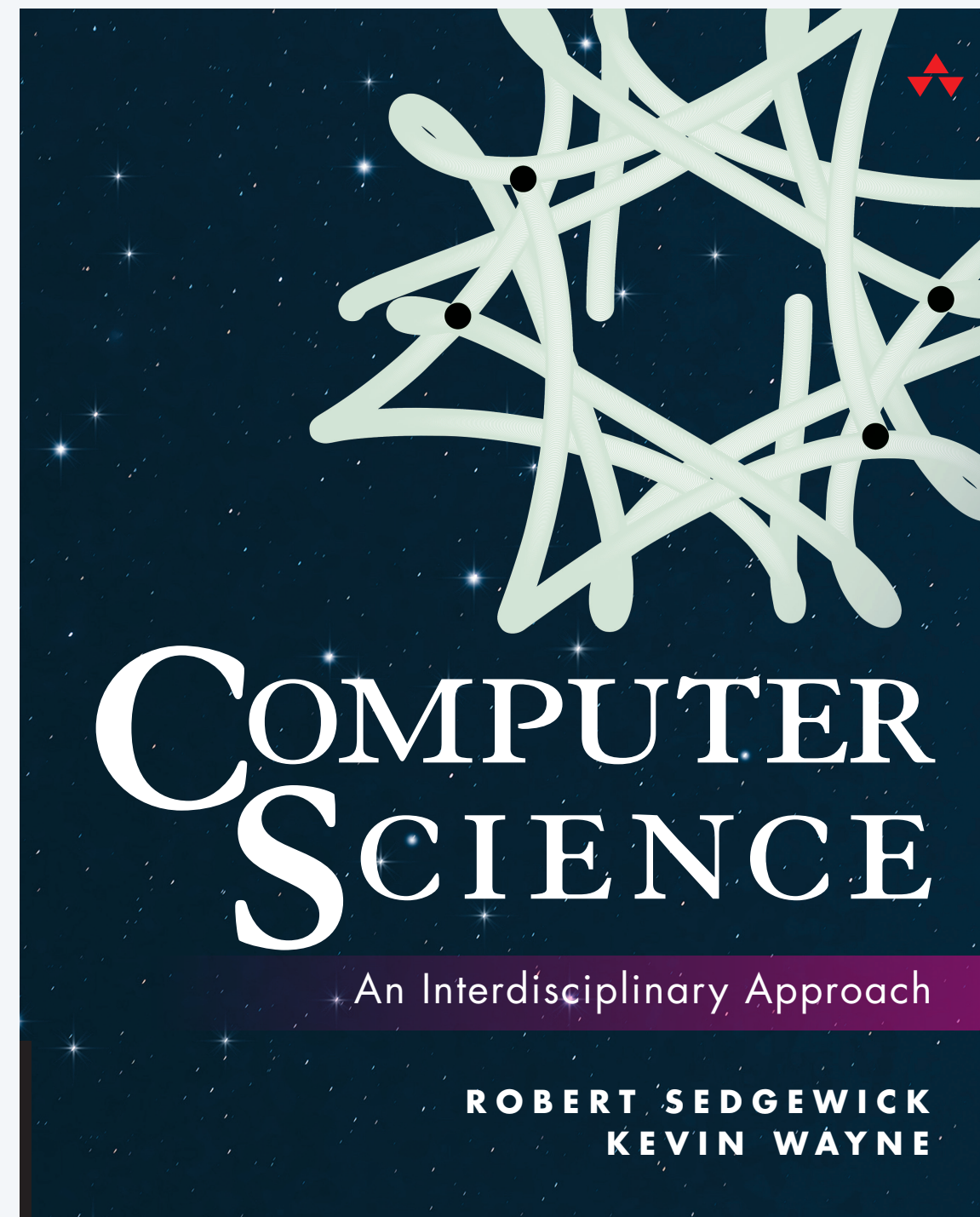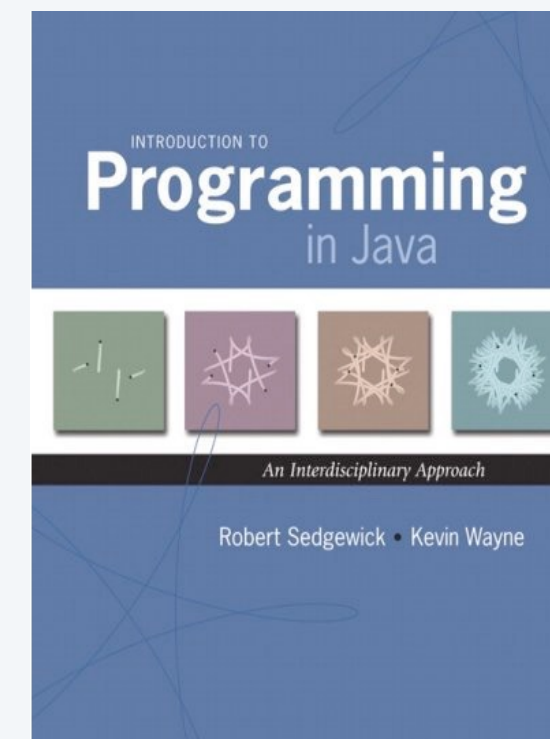
Our new textbook is the basis of this course.

- Full coverage of course material.
- Developed for COS 126.
- Use while learning and studying.

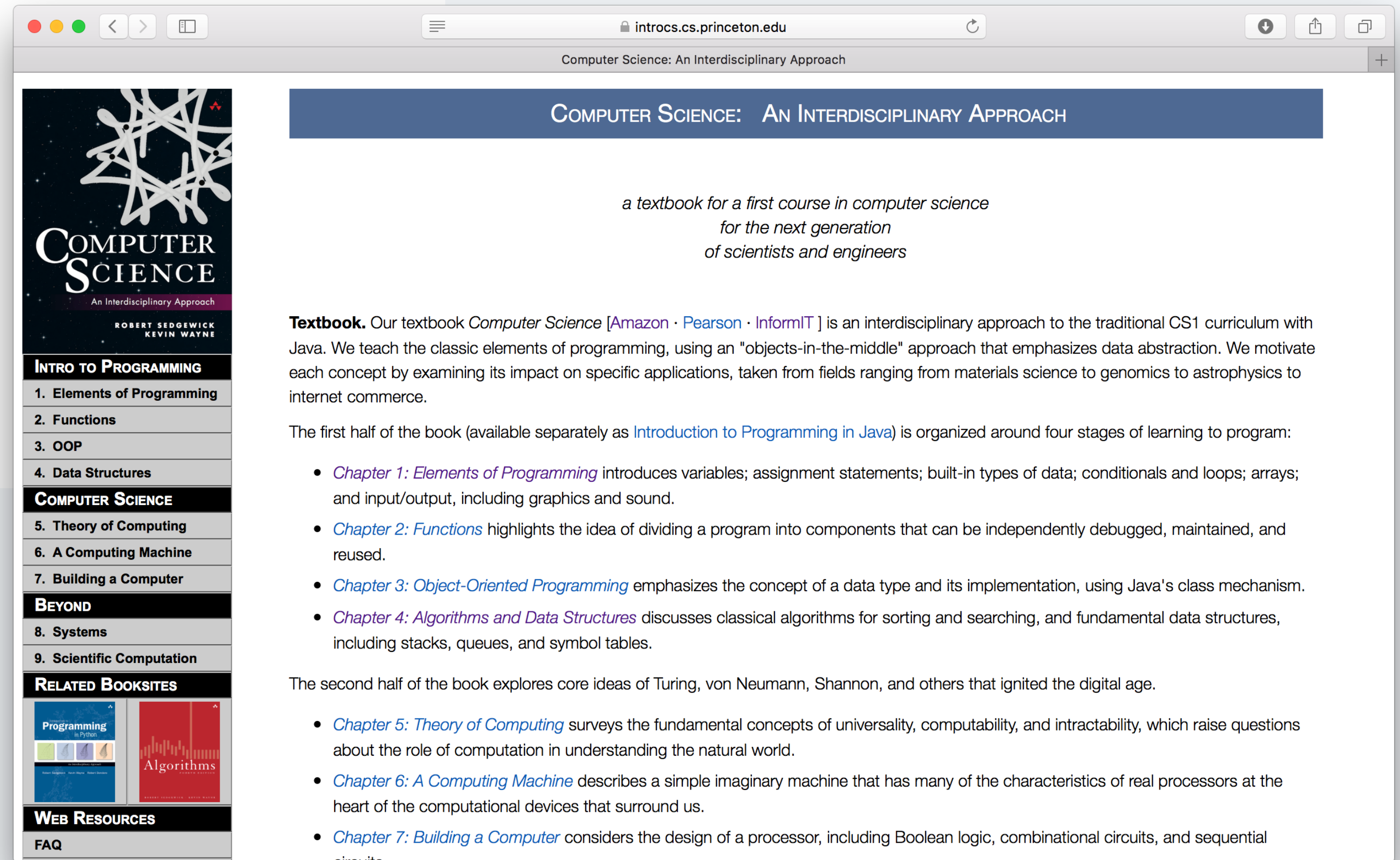⟵ old version has only the first half

Booksite

The book is supported by a unique resource.

- Summary of content.
- Code, exercises, examples.
- Test data, animations
- Extra material.
- *NOT the textbook.*
- *NOT the course website.*
- For use while online.

`http://introcs.cs.princeton.edu` ⟵ bookmark this page, too!

Video lectures

Online lecture materials are on the website

- Copies of slides (.pdf and 4-up).
- Studio-produced videos.
- ***No more live lectures.***

Why? Because you can

- Fit lectures into your schedule more easily.
- Slow down or rewind if you get lost.
- Speed up or skip if you get bored.
- Watch before precept to prepare.
- Watch before exams to study.
- Focus on understanding, not note-taking.
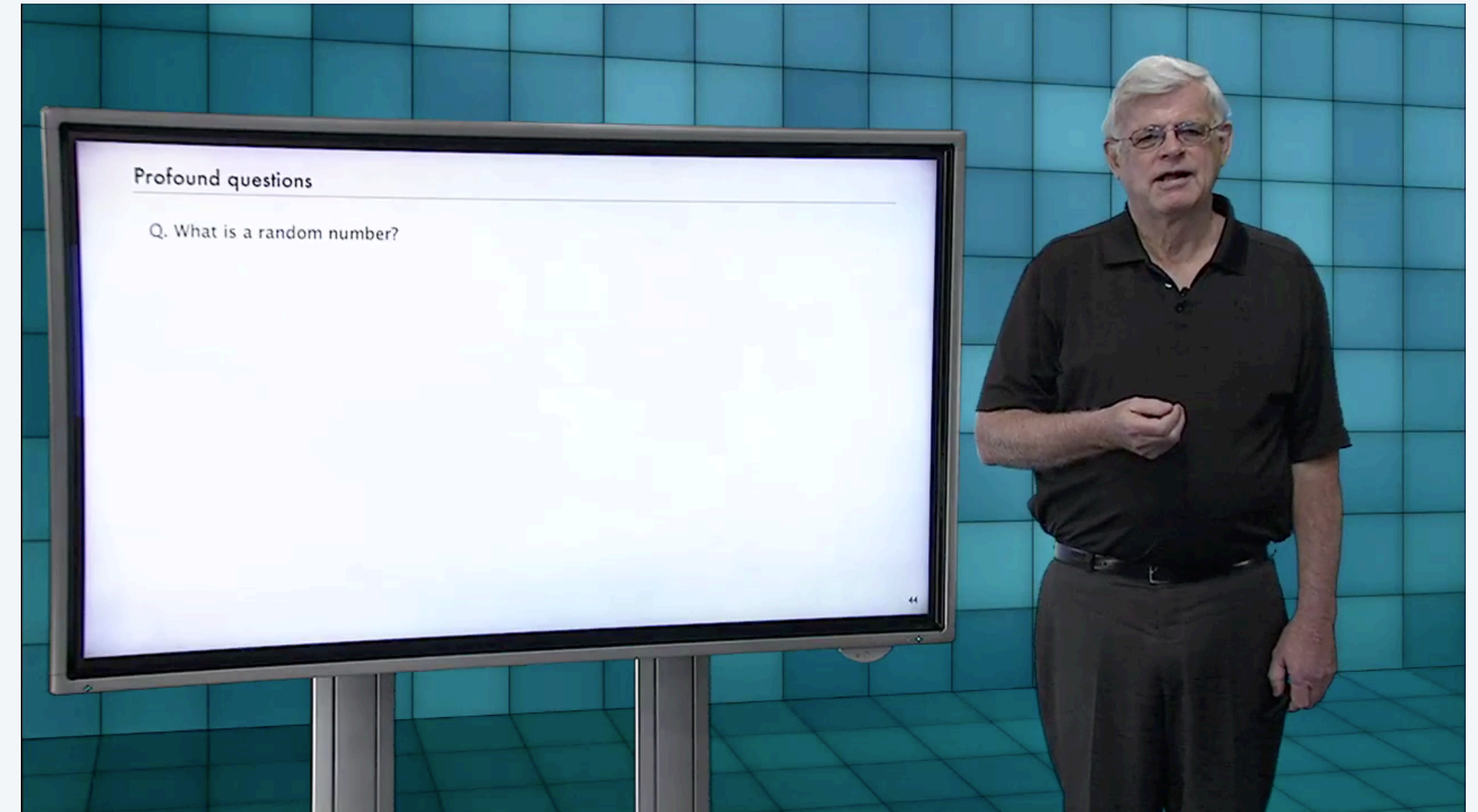
" Lecturing is that mysterious process by means of which the contents of the note-book of the professor are transferred ... to the note-book of the student without passing through the mind of either. "
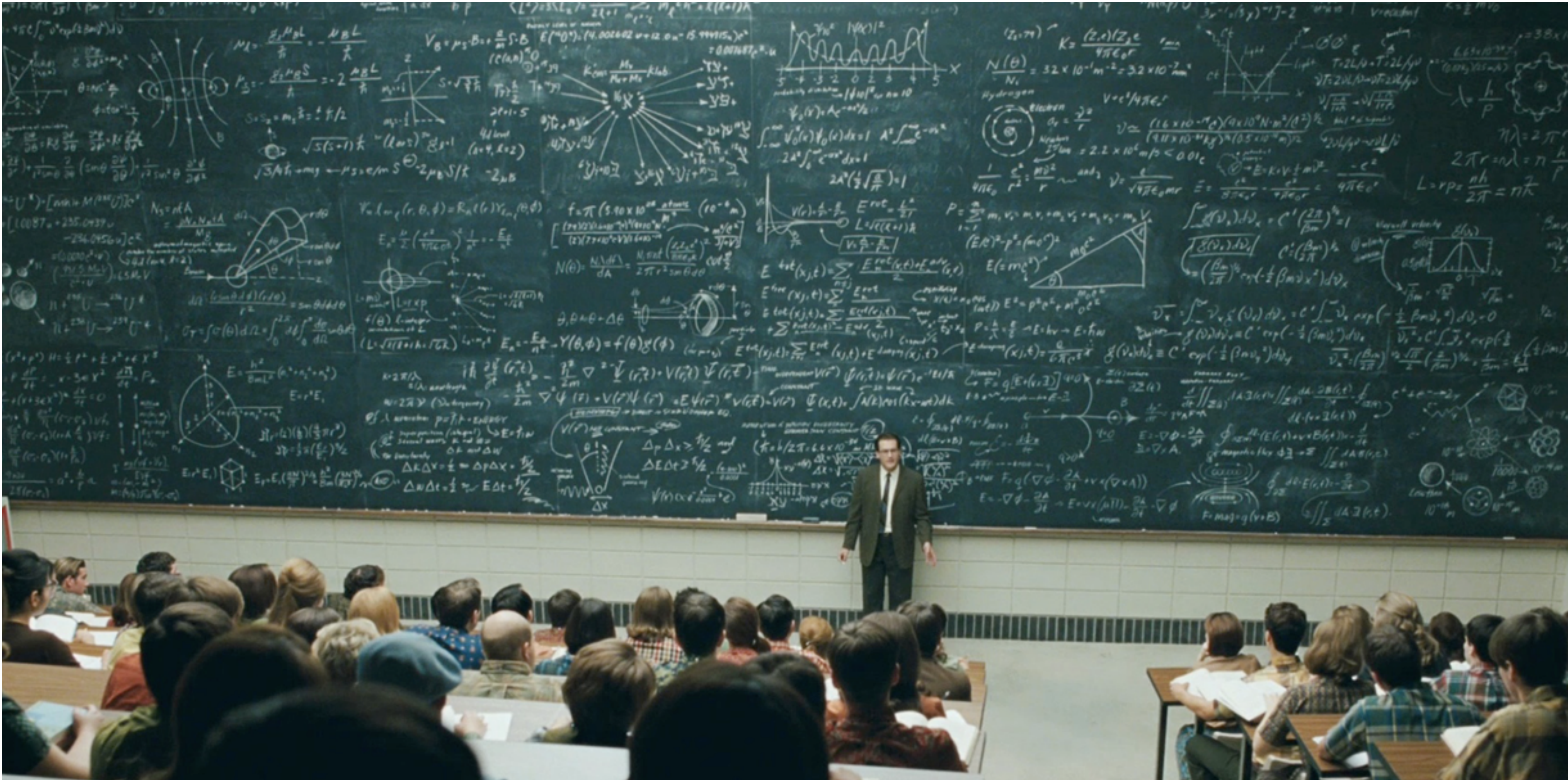
— Edwin Emery Slosson

Bottom line. Online format has *proven* to be a much more effective and efficient approach.

20th Century

21st Century

Class meetings

We often meet here Tues or Thurs at this time *but not always*.

- Exam preparation and review.
- Exams.
- Assignment preparation (sometimes).
- A few miscellaneous enrichment topics.
- Check *Meetings* tab for schedule
- *No meeting this Thursday*

	Su	Mo	Tu	We	Th	Fr	Sa
SEP							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	**18**	19	20	21	22
	23	24	**25**	26	**27**	28	29
	30						
OCT		1	2	3	**4**	5	6
	7	8	**9**	10	**11**	12	13
	14	15	**16**	17	**18**	19	20
	21	22	23	24	**25**	26	27
	28	29	30	31			
NOV					1	2	3
	4	5	6	7	**8**	9	10
	11	12	13	14	**15**	16	17
	18	19	20	21	22	23	24
	25	26	27	28	**29**	30	
DEC							1
	2	3	**4**	5	**6**	7	8
	9	10	**11**	12	**13**	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31					
JAN			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31		

We have many opportunities to determine your level of achievement.

- 9 programming assignments.
- 2 written exams (in class, 10/18 and 12/13).
- 2 programming exams (in class, 10/11 and 12/6).
- Final programming project (due Dean's date – 1).
- Extra credit / staff discretion. Adjust borderline cases.
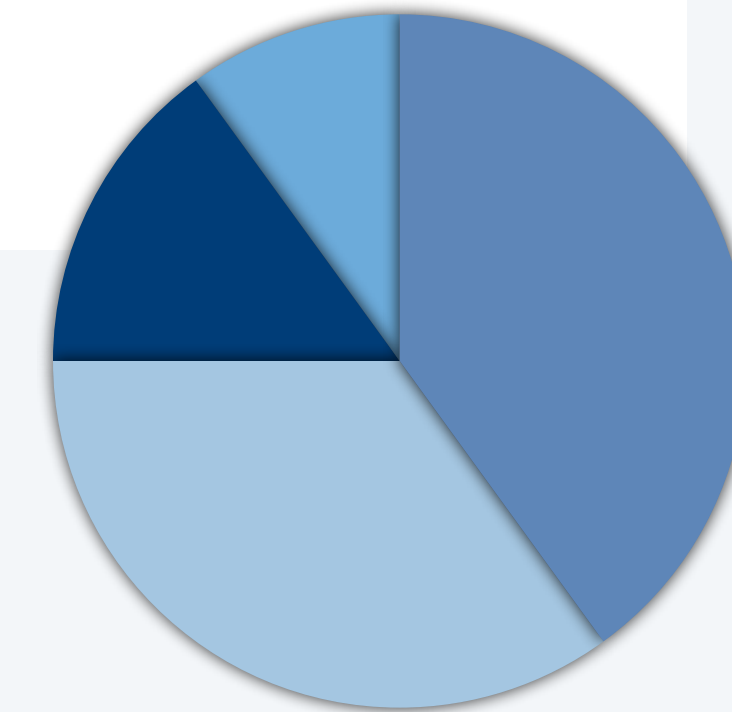
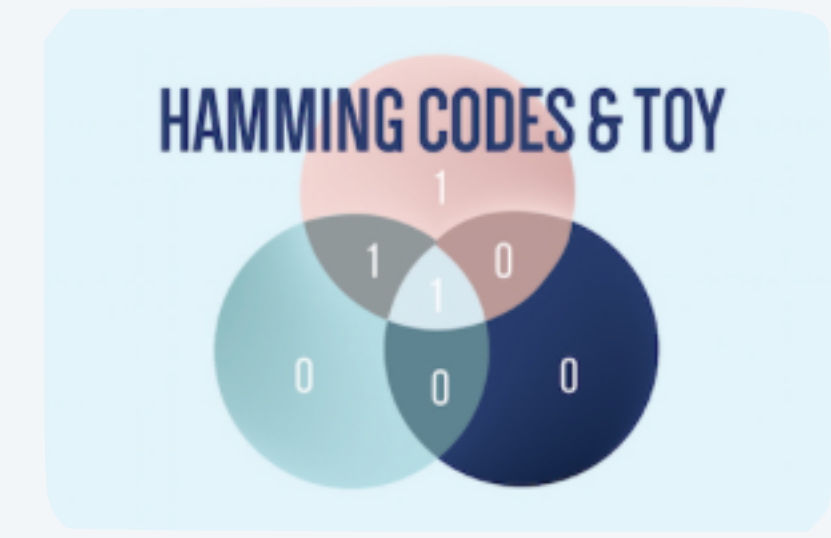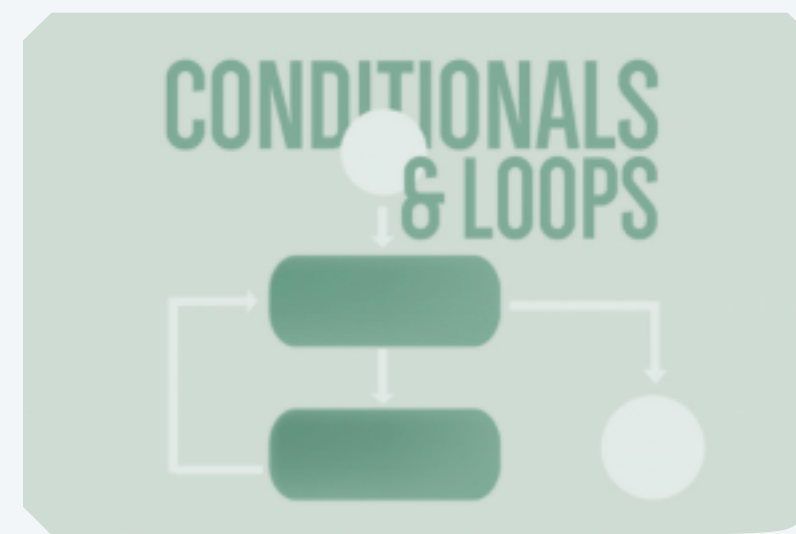We do not grade on a "curve".

participation helps
frequent absence hurts

you are already here

You will learn to program "with a purpose"

- Weekly programming assignments.

- Interesting and informative.

- Practical application of lecture topics.

- Introduction to meaningful applications.

Exams

We have exams in the fall
- Two written exams.
- Two programming exams.
- Prep sessions in class meetings
- **No final exam**
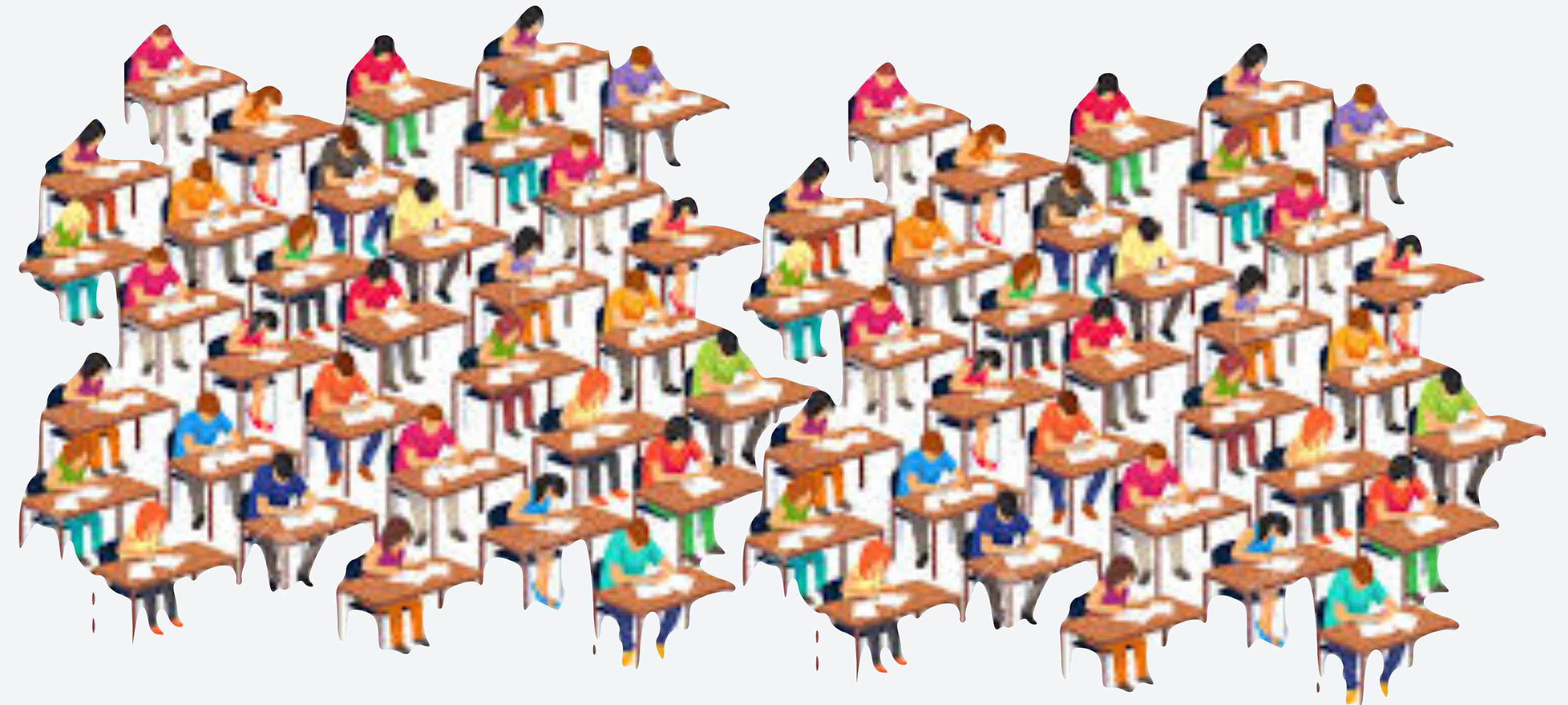
Programming exams.
- October 11 and December 6.
- Mini in-class assignments.
- *"Can you write a short program?"*
- You will need to practice.

Written exams.
- October 18 and December 13.
- Written by RS.
- *"Did you watch the lectures and do the reading?"*
- One question per lecture (roughly).

Platform changes

Integrated development environment

> ### We have changed from DrJava to IntelliJ
> - Some slides in Lecture 1 are "deprecated".
> - No changes in textbook.
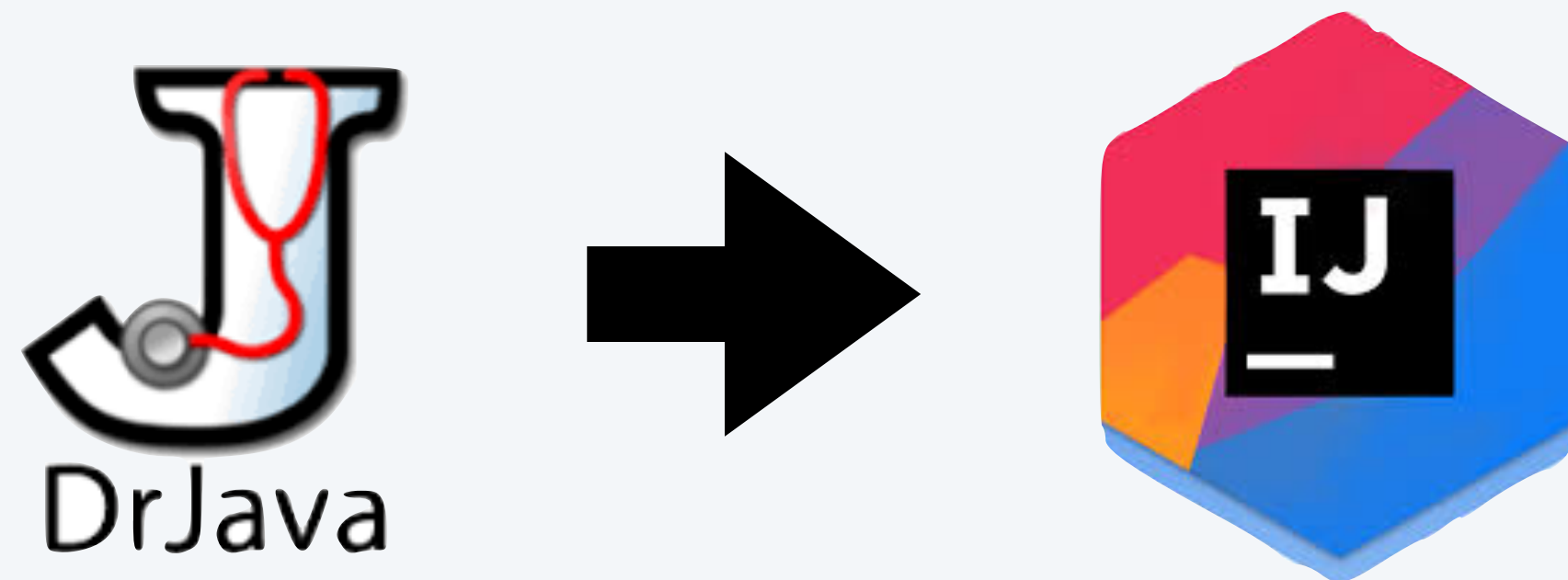
Submission platform

> ### We have changed from Dropbox to TigerFile
> - Big changes under the hood.
> - You just click the *Submit* button.
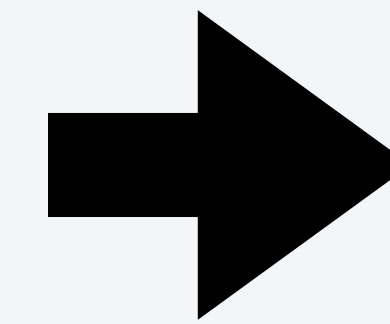
Please note. People who took COS 126 in the past may not know these platforms.
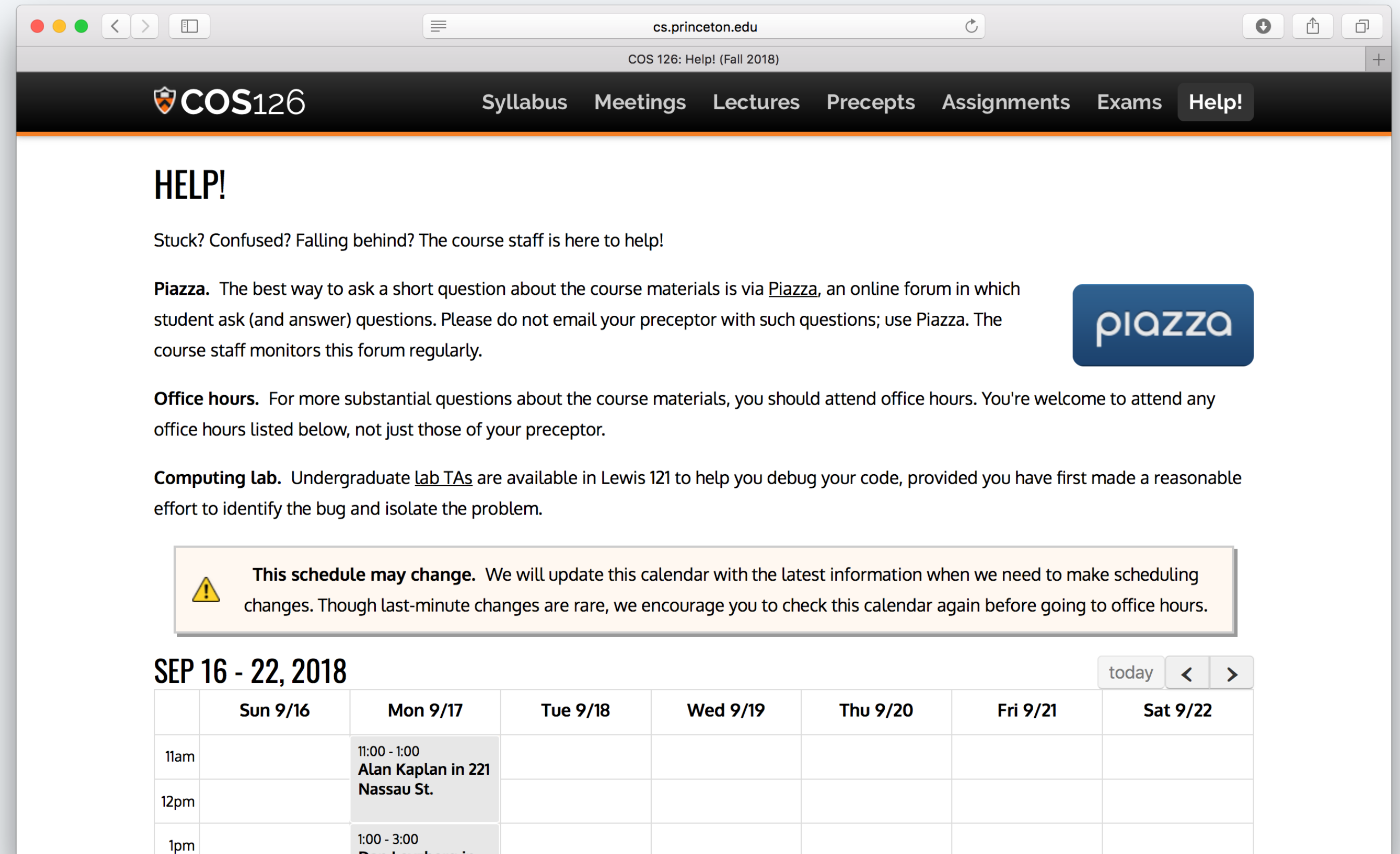
we're learning them, too!

Where can I get help?

You have many resources.
- Preceptors.
- Piazza.
- Office hours.
- Lab TAs.
- See Help! tab for details.

We have a carefully articulated collaboration policy.
- Working with others within the rules is encouraged *but we strictly enforce the rules.*
- See the *Syllabus* on the website front page for details.
- Ignorance is no defense (read it carefully *today*).

Piazza

You will most often find answers on Piazza.
- Try it when you have a question.
- Visit occasionally even if you have no questions.
- Available around the clock.

Dos.
- Take the time to provide a thoughtful answer.
- Point to book or website when you can.

Don'ts.
- Provide a guess as an answer.
- Ask a question before checking the book or website.
- DO NOT POST CODE (EVER).

Questions and Answers