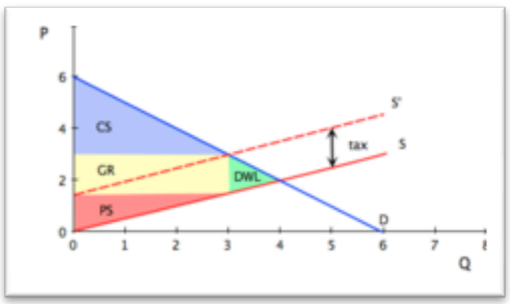
MACHINE LEARNING | STANFORD

DESIGN AND ANALYSIS OF ALGORITHMS | STANFORD



PRINCIPLES OF MICROECONOMICS | UPENN

Ethan Solomon

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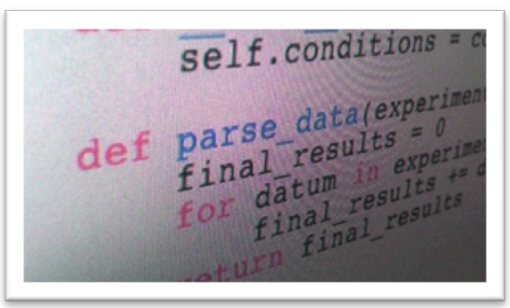


COMPUTER SCIENCE & PROGRAMMING| MITx

What do MOOCs do well?

Lesson 1: try, try again
(then try some more)

RESISTANTVIRUS CLASS

In order to model this effect, we introduce a subclass of `SimpleVirus` called `ResistantVirus`. `ResistantVirus` maintains the state of a virus particle's drug resistances, and accounts for the inheritance of drug resistance traits to offspring. Implement the `ResistantVirus` class.

```
class ResistantVirus(SimpleVirus):
    """
    Representation of a virus which can have drug resistance.
    """

    def __init__(self, maxBirthProb, clearProb, resistances, mutProb):
        """
```

✔ Correct

Test results

You have used 4 of 30 submissions

CORRECT

See full output

Show Answer(s)

You have used 4 of 30 submissions

Lesson 2:

little green checkmarks can be surprisingly addicting

```
from ps8b_precompiled_27 import *
```

```
def simulationWithoutDrug(numViruses, maxPop, maxBirthProb, clearProb,
                          numTrials):
    """
    Run the simulation and plot the graph for problem 3 (no drugs are used,
    viruses do not have any drug resistance).
    For each of numTrials trial, instantiates a patient, runs a simulation
    for 300 timesteps, and plots the average virus population size as a
```

Correct

Lesson 3: streamlined is better

MOOCs are more efficient information delivery systems

- ✔ W1-L3.3 - Demo of Ipython and git init (8:11)
- ✔ W1-L3.4 - Developing script (9:33)
- ✔ W1-L3.5 - Converting to a module/function (11:33)
- ✔ W1-L3.6 - Git checkout (3:44)
- ✔ W1-L3.7 - Adding docstrings (4:28)

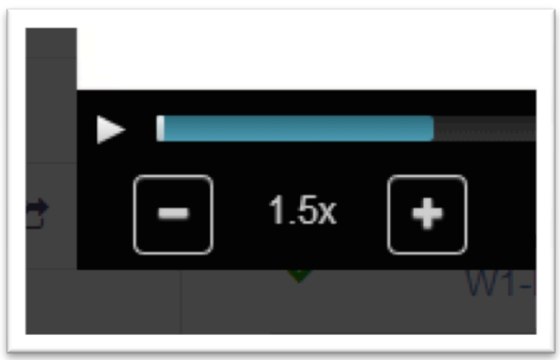
Week 2 - Lecture 4: Continued demo of Python and git

Week 2 - Lecture 5: Python language features

Week 2 - Lecture 6: NumPy and timing Python code

- ✔ W2-L6.1 - NumPy array class for vectors and matrices (9:22)
- ✔ W2-L6.2 - NumPy matrix class (4:11)
- ✔ W2-L6.3 - Rank of an array (2:40)
- ✔ W2-L6.4 - Linear algebra with NumPy (3:31)
- ✔ W2-L6.5 - Numerical integration with NumPy (3:07)
- ✔ W2-L6.6 - Lambda functions (1:44)
- ✔ W2-L6.7 - Main Program in Python module (7:51)
- ✔ W2-L6.8 - Timing execution of Python codes (13:10)

Lesson 4: go at your own pace
(sort of)



Where is there room for improvement?

Feedback is deprived

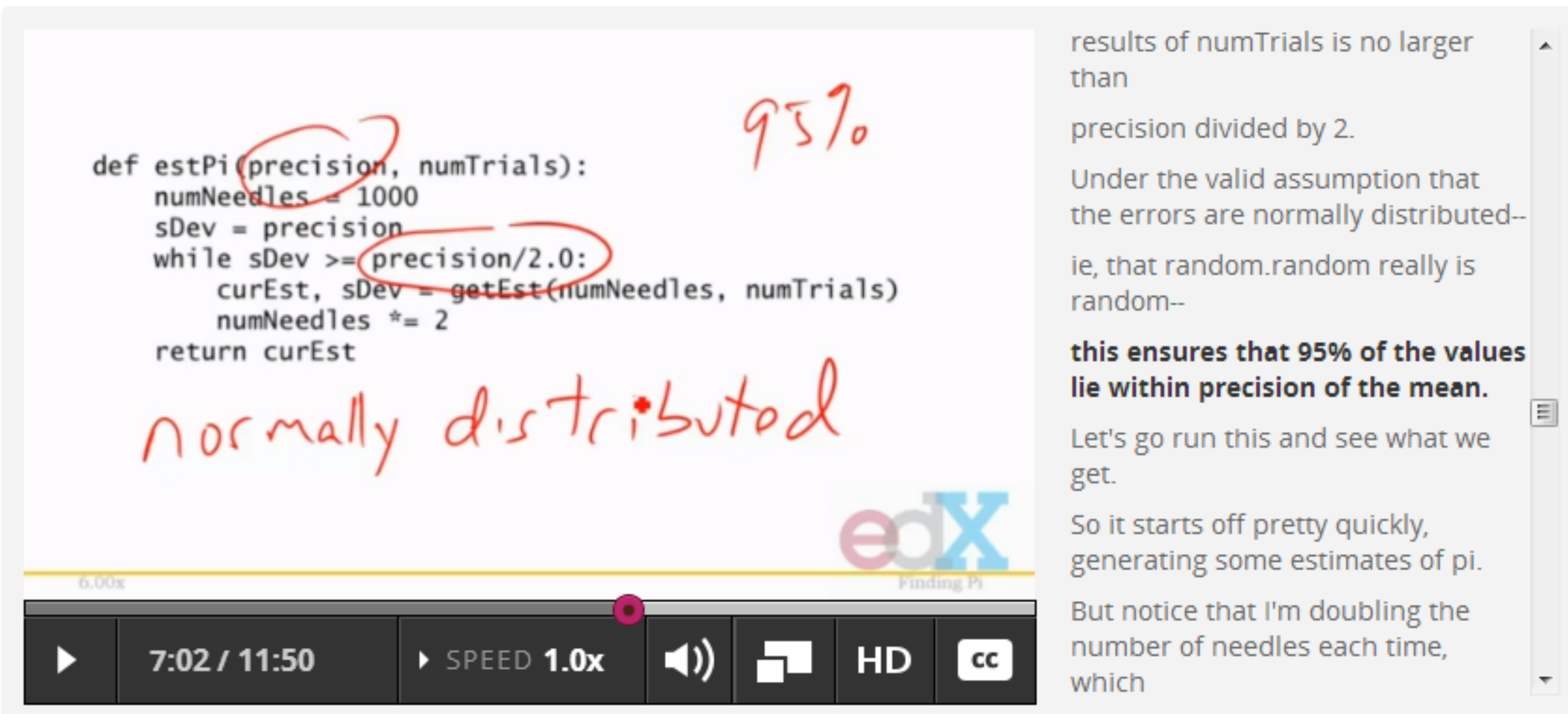
with autograders, feedback is mostly right-or-wrong.

Submission	
Submission time	Sun-30-Sep 22:59:19
Raw Score	30.00 / 30.00
Feedback	Nice work!

Little creativity in lectures

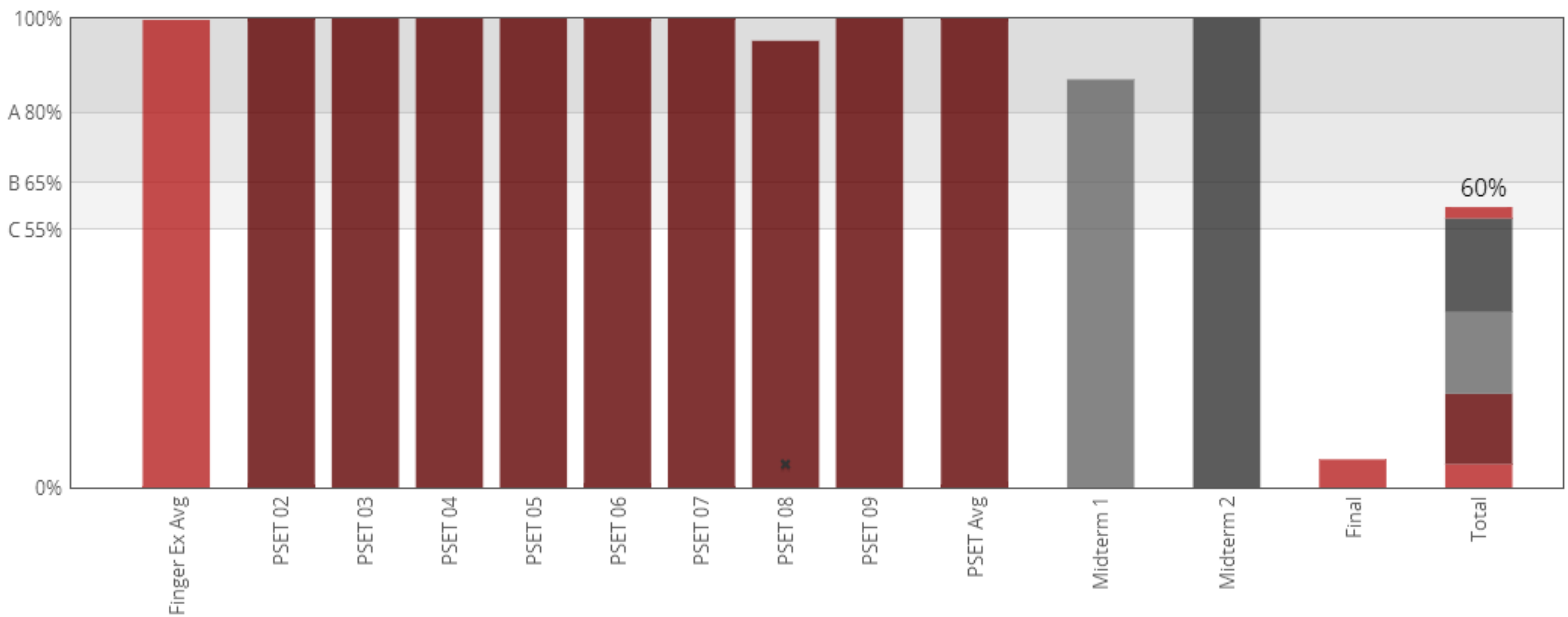
in-video questions are nice, but little else is different from brick-and-mortar lectures

ESTIMATING PI



Course organization

some course teams may initially struggle to meet the demands of a large audience or their own self-imposed deadlines.



21st century learning

20th century campus

2030 Vision

Campus-Wide Renovations

Multiple Partial Building Renovations

Capital Renewal Projects Throughout Campus (Systems, infrastructure, roofs, elevators, plazas, interior finishes, etc.)

January 5, 2012