

Software Design & Implementation 1

This is the Fall 2012 Thursday section.

TH 6.30 - 9.10pm 5122 Ingersoll

Professor Simon Parsons

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Class web page:

http://www.sci.brooklyn.cuny.edu/~parsons/courses/3120-fall-2012/

Course description:

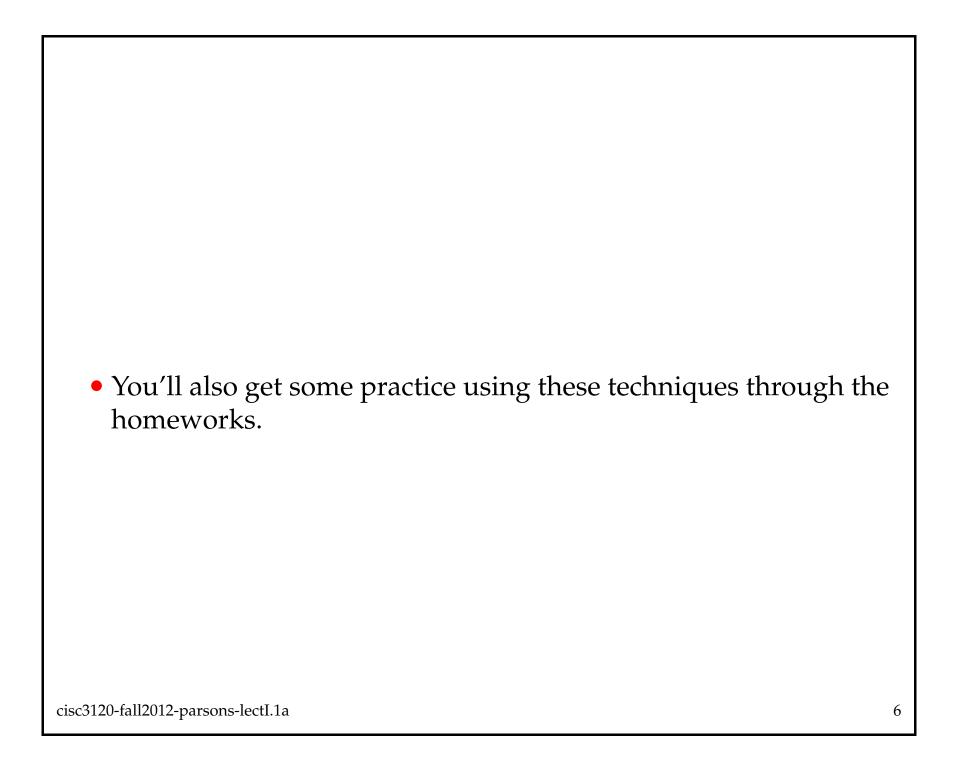
Introduction to essential topics for modern software application development: Graphical User Interface (GUI) programming and human-computer interaction; computer graphics; networks, security, and client-server computing, including web applications. Code development by example, and modification of instructor-authored code using Java, emphasizing its graphics and networking capabilities. Contemporary programming development environments and tools including Application Programming Interfaces (APIs) and Integrated Development Environments (IDEs).

Course objectives

- To introduce you to some of the basic ideas, methods and tools that are used in modern software developemnt.
- Though we use Java, this is <u>not</u> a course on Java.
- It is just a course that happens to include a lot of programming in Java.

Course objectives

- In particular, this course will teach you about:
 - Object-oriented programming
 - Graphical user interfaces
 - Network programming
 - Graphics
- There will also be some basic Java to get you up to speed.



Resources

- Lectures
- Textbook
 - There is no textbook.
 - One of the things you should get out of this course is practice in using the large array of tutorial material online.
 - (Note that this is not the same as copying things from what you find online.)
- Lecture notes
- Web page
 - http://www.sci.brooklyn.cuny.edu/~parsons/courses/3120-fall-2012

Office Hours

- There will be office hours on Thursday 5.00–6.00 pm
- I will also be running virtual office hours, online (on AIM) under the screen name:

profSimonParsons

I'll be online Tuesday night, between 10 and 11pm if you want to ask questions, or just come say "hi". Outside of that time, drop me an email and I'll get back to you as quick as I can.

Assessment

- Out of 100 points
- Homework assignments (50 points total)
- Exams (50 points total)
 - midterm (15 points)
 - final exam (35 points)
- Note that the midterm date is tentatively set for 11th October but this is subject to change!

Homeworks

- Two kinds:
 - 1. Short: Weekly small programs to get you (keep you) in the habit of writing code, and have you practice the methods we learn in class.
 - These will typically be extensions of the lab exercises.
 - 2. Long: More infrequent larger programs to go deeper into the topics we cover.
- Long homeworks are worth more :-)

A word about homeworks

- Should be done on your own, as much as possible
- Get help from me, friends but you must acknowledge all help received by citing the names of those who helped you.
- This not only protects you from being accused of cheating, but also protects you in case your helper gives you misinformation

Homeworks: submission policy

- Homeworks are due on the day that they are due.
- Homework will be submitted electronically I'll give you the details when the homeworks are due.
- Exceptions and extensions are possible, primarily based on MEDICAL EMERGENCIES.
- Circumstances must be documented and suitable arrangements will be made.
- You must consult me via email on an individual basis.
- You must consult me **BEFORE** you need the exception/extension, not afterwards

Regrade policy

- If you feel that there was an error in grading your homework, or exam, then you need to write on a piece of paper a description of the error.
- STAPLE the paper to your homework or exam and leave it with me to be regraded.
- Know that I mark with a list of expectations for each homework assignment and exam problem, knowing where to take off points
 so if your complaint is that too many points were taken off for one kind of mistake or another in your program, then generally those types of things will not change in a regrade.

- If there is a genuine error in the marking, like I thought something was missing, but it is really there, then you will likely get points restored.
- HOWEVER, a regrade means that the entire assignment or exam will be remarked, so be aware that your mark can go **DOWN** as well as up.
- Regrades take while to process, so be patient if you need the work to study from, then make a copy of it before you turn it in for a regrade.

A word about lectures

- Brief lecture notes will be placed on the web page after every lecture.
- These will be linked to the syllabus page.
- But they are NOT A SUBSTITUTE FOR COMING TO CLASS.
- I know, I used to skip classes too.
- If you must miss a class, YOU are responsible for getting notes from someone who did come to class

- I will post lecture notes on the web after class BUT:
 - you learn better when you actually have to write things down yourself.
 - just reading along with my notes makes you sleepy.
 - everything I say is NOT in the lecture notes, but anything I say MIGHT be on an exam or in a homework, so you need to take notes on what I say
 - sometimes there are mistakes in the lecture notes which get caught during class; so you will only get the correct version if you come to class and take notes.

A word about exams

Exams are not a great way of assessing what people know, but they:

- Are the only way I know you are doing your own work.
- Are the only way YOU know you are doing your own work.
- Are not hard if you really know the material.
- Notice my weighting scheme for exams.
 - 1. midterm: 15%
 - 2. final exam: 35%

A word about feedback

- Homeworks and exams let me know how you are doing.
- In a way, they let me know how I am doing, as a reflection of how you are doing.
- But, I welcome feedback from you:
 - Email;
 - IM;
 - Comments during class or office hours; and
 - Anonymous written notes.

A word about academic integrity

- The work you submit for assessment should be completed ON YOUR OWN.
- You may get help from me, friends.
- You must acknowledge all help given.
- You must not download material from the web and submit it as your own work.
- You must not mail code or copy files.
- If someone asks you to do this, *JUST SAY NO!*.

Topics covered

We will cover the following:

- Basic java
- Object-oriented programming
- Graphical user interfaces
- Network programming
- Graphics

For full details see the class syllabus page.

About the instructor

- Undergrad: University of Cambridge, Engineering, class of 1988
- Grad school: University of London, PhD 1993
- Previous teaching:
 - Queen Mary & Westfield College, London, UK.
 - University of Liverpool, UK.
 - Universidad Politechnica de Catalunya, Barcelona, Spain.
 - Universidad Nacional del Sur, Bahia Blanca, Argentina.
 - Columbia University.
- Research interests:
 - Robotics;
 - Software agents and multi-agent systems; and
 - Rational action.

About you

• Please answer the questionnaire I'm handing out.