

Creative Computing 1

Spring 2011 Syllabus

Course website: <http://garfieldcs.com>
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Room: 115

This course is an introduction to programming for students who are comfortable with algebra and are looking for an opportunity to become technology creators. We will complete a number of interesting and challenging projects to demonstrate that programming provides a powerful set of tools for creative expression.

We will primarily be using the freely available Python programming language, an easy-to-learn scripting language used by companies around the world. The problem-solving skills you gain in this course will be helpful to you no matter what field you choose to pursue and experience writing programs will make you a more savvy software user.

Goals

Successful completion of this course and its projects will provide students with basic programming skills. Students will be able to:

- identify and discuss the major hardware and software components of a computer system
- assess whether a career in a computing field is interesting to them
- discuss the role of computing in various fields
- recognize problems that can be solved with programming
- design, implement and debug computer-based solutions to small-scale problems
- use common algorithms and data structures
- write code using good Python syntax and programming style

Grading

Over the course of the semester, you will complete several programming projects as well as shorter lab activities. That's where the learning happens, so these are weighed heavily. Each assignment will be graded according to the criteria listed in the assignment write-up. Paper exams are also an important opportunity for you to demonstrate learning. Points will be distributed between the different categories approximately as follows:

50% - programming projects

25% - exercises, worksheets, participation

25% - tests and quizzes

Exams

You will have pencil and paper quizzes and exams during each unit. These will include programming questions as well as short essay questions on topics covered.

Class materials

We will not be using a paper textbook in this class. Instead, I will use the course website to link to readings, write lecture summaries and post slides. Assignment descriptions will also be posted on the website. It will be your responsibility to make sure you either download materials ahead of time or have access to the Internet when you need them.

Programming Projects

You will have a programming assignment about every two weeks. It will be up to you to budget your time – I will give you lots of time to work in class but it will be your responsibility to complete the projects for homework as need be. If you need to work outside of class, instructions for getting your own machine set up are on the course website or I will make the lab available for use after school most days. It is your responsibility to talk to me ahead of time if you need access to the lab.

I expect you to turn in programming projects on time or talk to me for alternative arrangements.

Getting Help

You may sometimes get stuck while working on an assignment for this class – please ask for help! I will try to make myself available most days after school. You can also usually find me in the classroom during lunch and 5th period but if you know you'll need help then, it's always a good idea to make an appointment to make sure I'll be there. I will also try to answer all e-mail within 24 hours.

Feedback

You have a great opportunity to shape the class into something you love by providing lots of feedback. You can always talk to me before/after class or send me e-mail. If you'd prefer to remain anonymous, I have posted a form on the website.