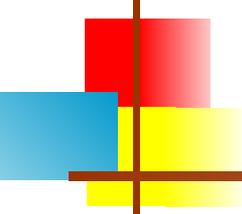# Welcome to CIT 590

Let me introduce myself

- I'm David Matuszek, known around here as "Dr. Dave"

  - I've been programming for over 50 years

  - I've been teaching computer science for nearly as long

- I'm here because

  - I really enjoy teaching

    - Except grading!

  - I really enjoy programming

    - Except debugging!

- Programming is

  - An art, which involves a lot of creativity, and also

  - A skill, which you can only learn by doing, not by reading about it

- I hope to share my enthusiasm with you!
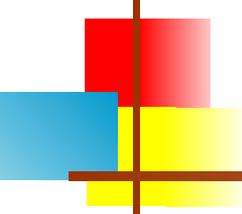
What we will study

- We will study two or (depending on how you count) three languages

  - We begin with **Python**, because it is a very good first language

  - In between we'll do a bit of **Processing**, because it eases our entry into Java

  - We'll end with **Java**, because that's one of the most popular languages in use today

- Processing is actually "Java in disguise"

  - All the syntax is Java syntax

  - Processing adds a large number of methods to create art

  - Processing has it's own little IDE (Integrated Development Environment), which helps make it seem like a different language
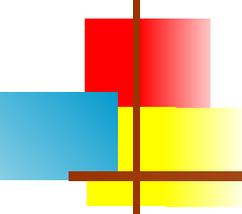
The dull mechanics

- There will be approximately one programming assignment per week (starting immediately)

    - Unless otherwise noted, each assignment will be worth 100 points

    - Late programs will lose 5 points per day

    - At some point after one week, we will stop accepting late assignments

- Grading will be based 50% on assignments, 25% on midterm, and 25% on final exam

    - Probably more than half the class will receive a grade of A or A-

    - If you do all the assignments and take the exams, you will almost certainly get a grade of B- or better
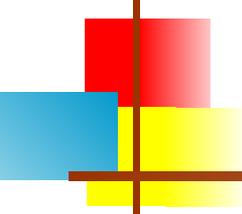
Academic honesty

- In this course, you **may**
    - Talk about your programs to others
    - Read each other's programs
    - Help others debug (or ask them for help)
- You **may not**
    - Work with someone else on an assignment
    - Copy from someone else's program
    - Lend someone else your program
- We have extremely good software to detect cheating
    - It compares every program against every other program
    - Can we tell the difference between copied programs and a program written separately after studying someone else's program?
        - Yes!
- Cheating will result in an F for the course
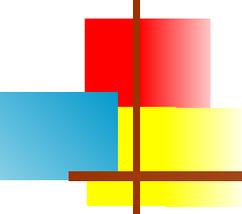
Attributions

- When you use code you got from elsewhere in your own program, you should attribute it (specify exactly where you got it from)

  - Failure to attribute your source is at best discourteous, and at worst dishonest

- Generally speaking, if you copy any code from somewhere (a web site, book, another student, etc.), you should attribute it (in comments)

  - You may use any code that *I* provide (in slides, assignments, examples, or elsewhere) without attribution

  - If it's just a very few lines to do something routine (like, open a file for reading), you don't need to attribute it

  - When in doubt, attribute it

- While some attributed code is acceptable, your program should be almost entirely your own code
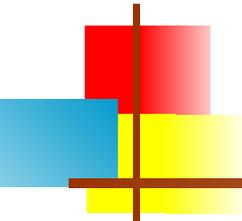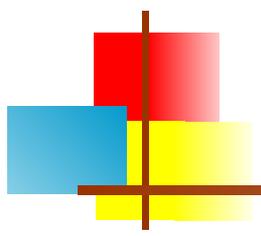
How to get a good grade

- Start your assignments early!

  - Programs always take much longer than you expect

    - "The first 90 percent of the code accounts for the first 90 percent of the development time. The remaining 10 percent of the code accounts for the other 90 percent of the development time."

      — Tom Cargill, Bell Labs

    - Hofstadter's Law: It always takes longer than you expect, even when you take into account Hofstadter's Law.

      — Douglas Hofstadter, Gödel, Escher, Bach: An Eternal Golden Braid

- Read the assignment!

  - Most points are lost because people don't follow the assignment *exactly*

  - When you think the program is finished, read the assignment again, looking for things you missed or got wrong

  - Because much of our grading is automated, method names must be spelled and capitalized correctly, and have the correct number and kind of parameters

The End