What is this course about?

An introduction to the fundamental concepts and practices of procedural programming. Topics include data types, control structures, functions, arrays, files, and the mechanics of running, testing, and debugging. Emphasis is placed on program design and problem solving techniques. The course also includes an introduction to the historical and social context of computing and an overview of computer science as a discipline.

What is computer science?

"Computer science is the scientific and mathematical approach to computation, and specifically to the design of computing machines and processes."

-- Wikipedia

A computer scientist is a *problem solver*.

What is computer science?

"Computer science is no more about computers than astronomy is about telescopes."

-- attributed to Edsger Dijkstra

What is this course about?

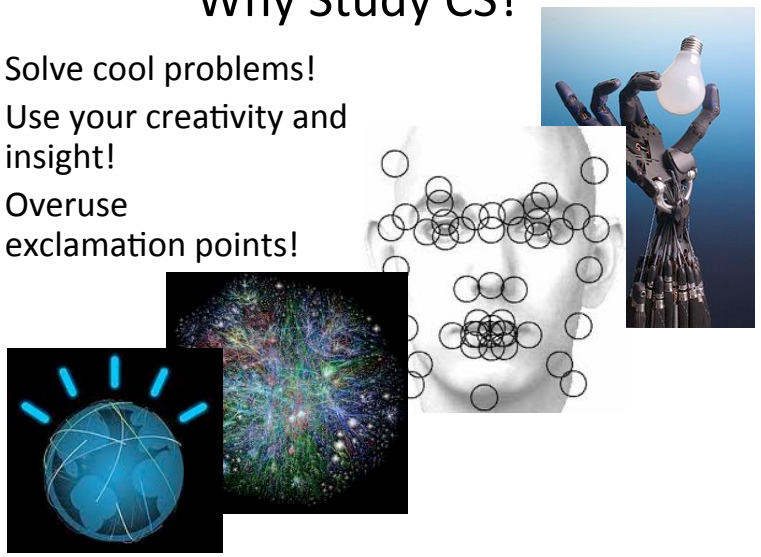
- Two big ideas in computer science: **algorithms** and **abstraction**.
- How computer science is relevant to you and everyone else.
- Learning to program.
  - Programming is not computer science, but a useful skill for a computer scientist to have.

Syllabus

- Textbook: You need the one with the MyProgrammingLab access card.
- Piazza: Use this online discussion system if you have questions. Just don't post code to it.
- Collaboration: All homework should be done individually.

Why Study CS?

- Solve cool problems!
- Use your creativity and insight!
- Overuse exclamation points!



Why Study CS?

- Contribute to society
  - Combine with biology, chemistry, physics, math, business, economics, music, art…
  - Work in transportation, medicine, engineering, economics, entertainment, technical theater, record keeping, insurance…
- Get a job

Why Study CS *at Rhodes?*

- Liberal arts background is great!
- Employers want to see:
  - Communication skills (verbal & written)
  - Strong work ethic
  - Teamwork skills (works well with others)
  - Initiative
  - Interpersonal skills (relates well to others)
  - Problem-solving skills