

Introduction to Computing?

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Course Overview

- Syllabus: cs.brynmawr.edu/cs110-2
- Book
- Robot
- Other topics: graphics, visualization, data analysis, information, music
- Programming: Calico Python
- Computer Science

What is computer science?

At Bryn Mawr College, Computer Science is a program designed generally to **explore problem solving using computers**. Of course computers play a major part, but computer science is really about the problem solving part.

Computer science can involve many disciplines, including **graphical design issues, mathematics, multimedia, electronics, cognitive science, bioinformatics, geoinformatics, artificial intelligence, human-computer interaction, technology/social issues, complexity**, and a host of other topics.

What is Computer Science?

“Computer science is no more about computers than astronomy is about telescopes”

- Edsger Dijkstra

Areas in Computer Science



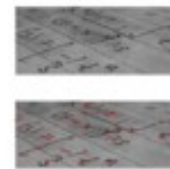
Operating systems



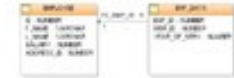
Computer networks



Computer graphics



Computer vision



Databases



Computer security



Artificial intelligence



Robotics



Human-computer interaction

Ubiquitous computing

From wikipedia.org/Computer_Science

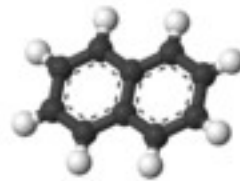
Scientific Problem Areas



Bioinformatics



Cognitive Science



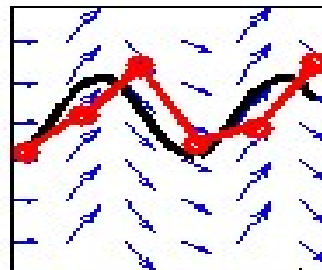
Computational chemistry



Computational neuroscience



Computational physics

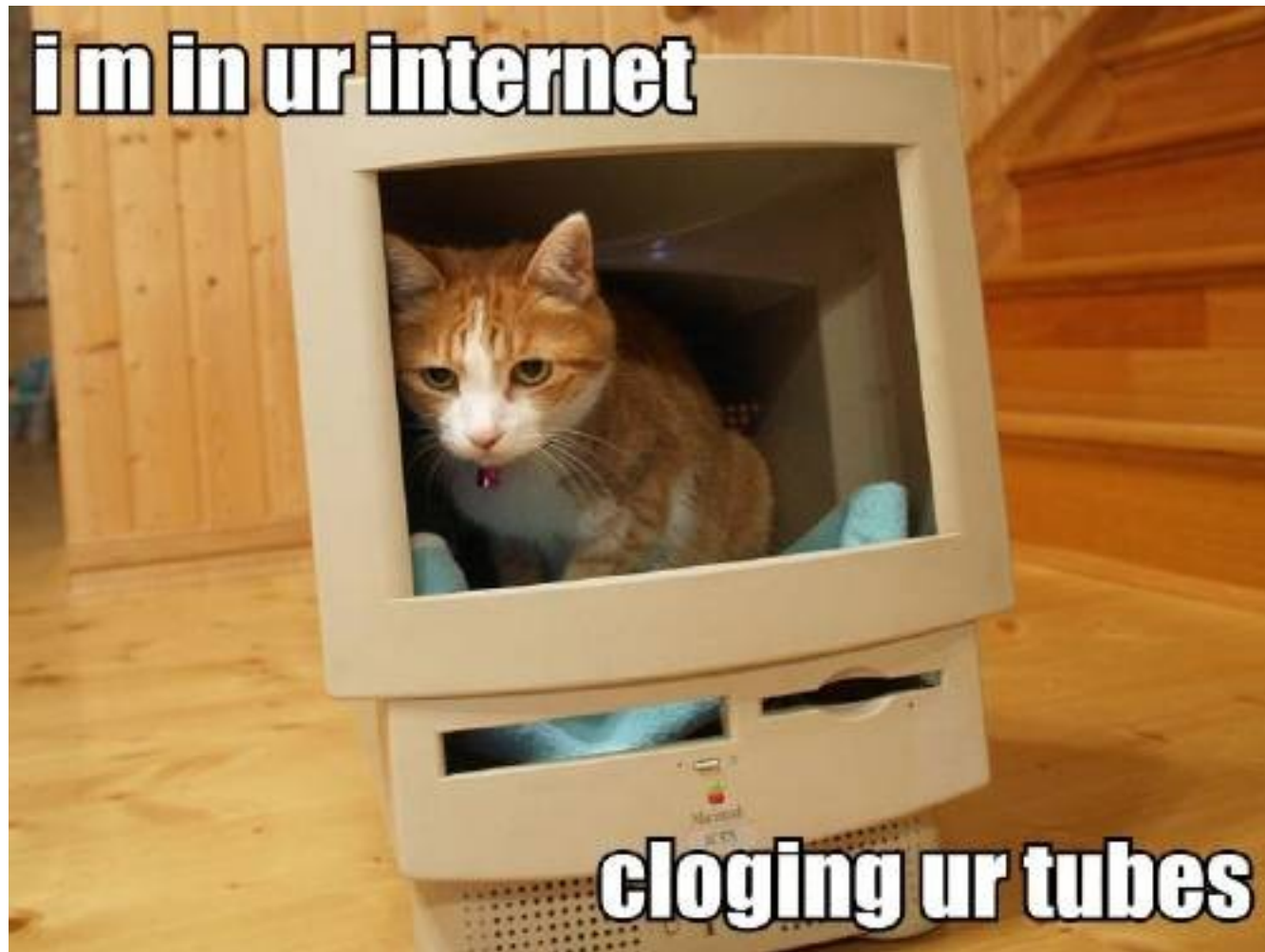


Numerical algorithms

$$y = \sin(x) + c$$

Symbolic mathematics

Other “Problems”



<http://icanhascheezburger.com>

Other “Problems”



[The Lion King - Stampede](#)
Watch this video on youtube.com

<http://www.youtube.com/watch?v=2m-42ek85G4>

Other “Problems”



Apple's Ipod

Other “Problems”



Microsoft Surface