COMP 200 Elements of Computer Science

John Greiner
Stephen Wong

A person well-trained in computer science knows how to deal with algorithms: how to construct them, manipulate them, understand them, analyze them. This knowledge prepares him for much more than writing good computer programs; it is a **general purpose mental tool** which will be a definite aid to his understanding of other subjects, whether they be chemistry, linguistics, or music, etc. The reason for this may be understood in the following way: **It has often been said that a person does not *really* understand something until he can teach it to a *computer*, i.e., express it as an algorithm**. – Donald Knuth

Our Goals for You

- Gain a broad understanding of what computer science is
- Solve problems better
- Solve problems using Python programming
  - Examples from social science & natural science

Expected Background

Programming: None

Math: High school; calculus helpful, but not req’d

Active Hands-on Learning

On your own:

- Readings with exercises, reinforced by quizzes
- Weekly assignments

In class:

- Minimal “lecturing”
- Deeper exercises
- Work on assignments
- Peer & staff assistance
- Bring your laptop

Graded Work

Frequent small quizzes:	5%
Weekly assignments:	65%
Exams:	30% (3 × 10%)

Course Resources & Tools

http://www.clear.rice.edu/comp200/

OWL-Space

http://www.codeskulptor.org/

OWL-Test