

# Advising students interested in Computers and Programming

Both classes have no pre-reqs and assume no prior knowledge of programming. Any student may take them.

## CSCI 1101

### Introduction to Computer Science

Introduction to problem solving and algorithmic thinking using computer programming. Provides tools and skills that can be used in any discipline. (Note: class is required for CSCI majors and minors, unless they place out).

#### Topics:

- Problem solving
- Algorithm design
- Fundamentals of programming

#### High-level questions:

- How do we design an algorithm to solve a problem?
- What kinds of problems can we solve with an algorithm?
- How can we use a computer to code and run an algorithm?

#### Example activities:

- Build interactive games like Pong and 2048
- Animate scenes and pictures
- Encrypt text messages
- Build a spell checker

#### Technology used:

- Programming in Java (or Python)

## INTD 1100

### Introduction to Digital and Computational Studies

A survey of an emerging discipline: the study of the cultural output, values, behaviors, and technologies associated with digital and computational environments. Prepares for future study in a variety of disciplines including CSCI.

#### Topics:

- Text analysis, Spatial analysis
- Social network analysis
- Physicality of digital environments
- New labor and behaviors provoked by digital and computational environments

#### High-level questions:

- How are digital and computational methods being applied and studied in different fields?
- How are they catalyzing change in our daily life?

#### Example activities:

Use digital and computational tools to:

- better understand what Joshua Chamberlain could see at the battle of Gettysburg
- define identity in the age of social media

#### Technology used:

- Basic Python programming, ArcGIS, Gephi, web-based apps