

Dr. Jill Zimmerman  
Julia Rogers 1111111<sub>2</sub>  
jill.zimmerman AT goucher.edu  
<http://phoenix.goucher.edu/~jillz>

**Office Hours:**

10:30 - 11:30 M  
8:30-9:30 T  
12:30 - 1:30 Th  
others by drop in or appointment

**Course web page** <http://phoenix.goucher.edu/~jillz/cs330>

**Course Description:**

In this class, we will study various algorithms and compare their relative efficiencies. Classic algorithms involving sorting and graph theory, as well as other areas will be examined.

**Course Objectives:**

After completion of this course you will be able to

- examine algorithms, either iterative or recursive, and determine their asymptotic complexity so as to compare the efficiencies of programming solutions.
- use lower bound proofs to determine if an algorithm is the best possible solution to a problem
- implement and analyze classic algorithms and techniques involving graphs, state space search, and dynamic programming
- reduce a problem to another in order to determine its intractability

**Course Mechanics:**

All lab assignments and programming projects are to be individual work. Lab assignments must be turned in on time and will not be accepted late except in the case of extraordinary circumstances. There are four projects and you will be given two "get out of jail free" passes to use as you see fit. Each pass will give you three days to submit the project after the due date.

**Academic Dishonesty:**

Turning in work that was produced by someone else is cheating and will be subject to an [Honor code](#) violation. I will give you a lot of opportunity to collaborate with your fellow students and ask me for assistance, but if you violate that trust and cheat by submitting work that is not your own you will be hurting yourself and others in the following ways:

1. You would be failing to engage in the authentic learning and mastery of the academic material and thus harming your own education.
2. You would be reducing the enjoyment of accomplishments earned through genuine effort.
3. You would be creating an environment of broken trust, which then limits the ability of students to work together meaningfully and collaboratively.
4. You would be harming your reputation and face serious consequences.

**Grading:**

Your course grade will be based on the following:

Problems and Projects	40%
3 Exams (15% each)	45%
Comprehensive Final Exam	15%
Total	100%