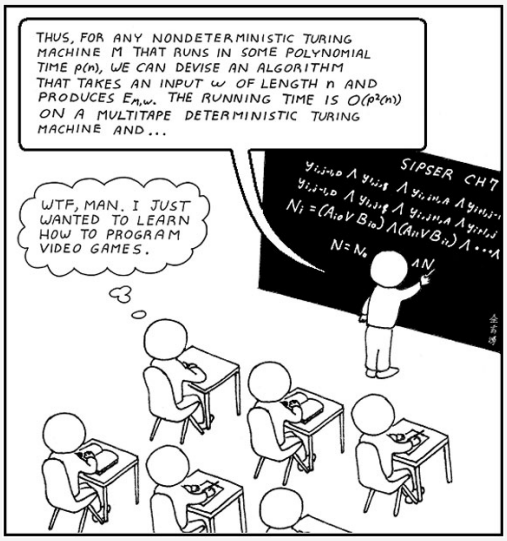
COMP 2210
Fundamentals of Computing II

Spring 2013 – Dr. Hendrix

AUBURN
UNIVERSITY

SAMUEL GINN
COLLEGE OF ENGINEERING

Course Content



http://abstrusegoose.com/strips/computer_science_major.PNG

Niklaus Wirth

Data structures

Methods of storing data

+

Algorithms

Methods of solving problems

= Programs

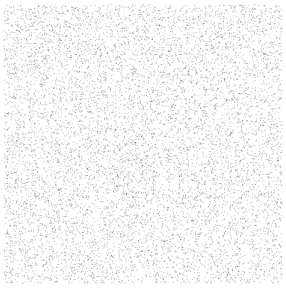
This is the core, foundational content that you will build on from this point forward.

Course Content

Example problem: Pattern recognition.

Given a set of two-dimensional points as input, highlight all the points that participate in a specified pattern (e.g., collinear). Assume you have a machine that executes 1 billion instructions per second.

Program input (~100K points)



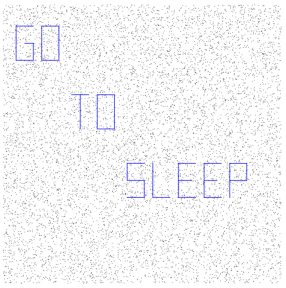
→ **Program A** →

~ 3000 years

→ **Program B** →

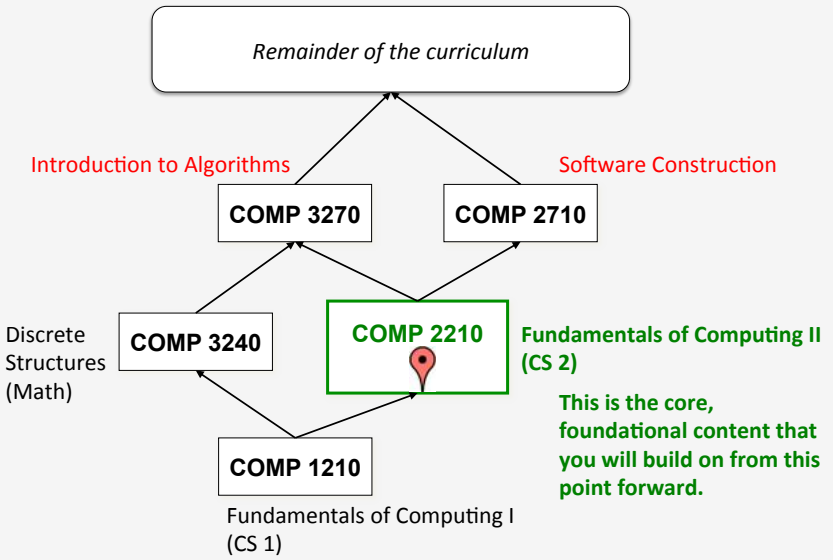
~ 3 minutes

Program output



Program = Data Structures + Algorithms

COMP 2210's place in the curriculum



Course Staff

Instructor
Dr. Dean Hendrix
Office: 3127B Shelby Center
Phone: 334-844–6305
Email: dh@auburn.edu
Office Hours: Posted in Canvas

Planned office hours:

```
M 1:00-2:30
T 9:30-10:30
W 9:30-10:30
R None
F 9:30-10:30
```

Teaching Assistants
Vijith Bhemmireddi, vzb0008, Shelby 3136
Santosh Nagarl, szn0024, Shelby 2117
Brad Smith, bds0004, Shelby 3136

Contacting me

E-mail is best. dh@auburn.edu

Canvas messaging is ok, but not preferred.

Drop by during office hours or make appt.

Course Meetings

Lecture Thach 112
11:00am – 11:50am MWF

Labs Shelby 2122
Sec 001 TR 1100-1215
Sec 002 TR 1230-1345
Sec 003 TR 1400-1515
Sec 004 TR 1530-1645
Sec 005 TR 1700-1815

You should have received this email:

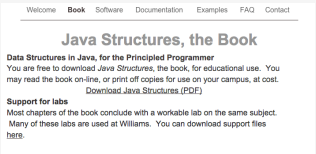
```
Welcome to COMP 2210 Fundamentals of Computing II, Spring 2013!

** The first lecture will be Wednesday January 9 in Thach 112.
** The first lab will be Tuesday January 15 in Shelby 2122.

Instructor: Dr. Dean Hendrix, dh@auburn.edu
Lecture: Thach 112, 11-11:50am Monday-Wednesday-Friday
Labs: Shelby 2122, Tuesday-Thursday as scheduled by section
          001 11:00am-12:15pm
          002 12:30pm-1:45pm
          003 2:00pm-3:15pm
          004 3:30pm-4:45pm
          005 5:00pm-6:15pm

Canvas: https://auburn.instructure.com/courses/751462
** Canvas access to the course will be available Wednesday January 9, 2013.
```

Course Materials

There is no specific text that is required for the course, but you do need a good CS 2 textbook.

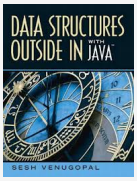
A good recommendation:

Bailey, Duane A. (2007). *Java Structures – Data Structures in Java for the Principled Programmer* (v7 edition). http://www.cs.williams.edu/JavaStructures/Book.html **(FREE)**



A good recommendation:

Venugopal, S. (2006). *Data Structures Outside-In with Java* (1st ed.). Prentice Hall. ISBN 0-13-198619-8.



Course Materials

i>clicker2

All students are required to have their own **i>clicker2** classroom response device. The i>clicker2 can be ordered online or purchased at area bookstores. When ordering, be sure to use ISBN 1429280476.

You must register your i>clicker2 no later than Tue Jan 15

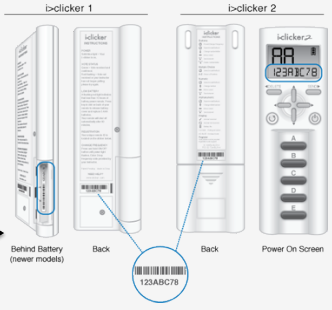
http://www.iclicker.com/support/registeryourclicker/

Student ID: Use your TigerMail ID

username@auburn.edu

Just the first part!

Remote ID: Look on back of device.



Course Materials

You will need a Java development environment in order to complete the assignments in this course.

Required: Java SE 7 JDK

http://www.oracle.com/technetwork/java/javase/downloads/index.html

Recommended: jGRASP 2.0.0 Beta

http://www.jgrasp.org/

Course Materials

You will need an account on the Engineering Network for this course.

In addition to your AU computer account, you will need an engineering account in order to access the computers in the Shelby 2122 lab. These accounts are generated automatically from course rolls. However, you may need to "sync" your password by going to the OIT My Account page. After you login, click Update Password; enter your password and confirm it (note that you do not need to change your password); be sure "Sync with TigerMail Live Services" is selected and then click Update.

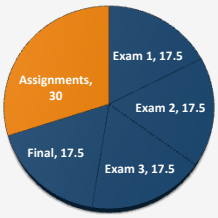
https://oitappstemp.auburn.edu/myaccount/

Course Grading

Your *numeric score* for the course will be determined according to the following formula where EXAMS is the arithmetic average of your individual exam scores, ASSIGN is the arithmetic average of your individual programming assignment scores, and PART is the fraction of two points corresponding to the percentage of possible participation points that you earned.

numeric score = EXAMS*0.7 + ASSIGN*0.3 + PART

Your *letter grade* for the course will be calculated as follows. If EXAMS ≥ 60 and ASSIGN ≥ 60, then your course letter grade will be assigned per the numeric score above and the standard 10-point scale (90-100 = A, 80-89 = B, etc.). If EXAMS < 60 or ASSIGN < 60, then your course letter grade will be an F.



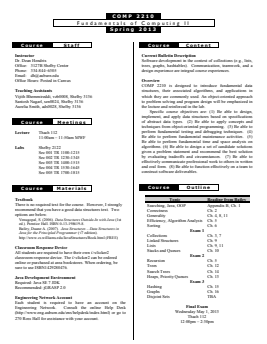
E1	E2	E3	Final	EXAMS	ASSIGN	W.Avg	PART	N.Score	Grade
85.00	83.00	75.00	75.00	79.50	75.00	**78.15**	2.00	**80.15**	**B**
88.00	89.00	88.00	87.00	88.00	90.00	**88.60**	1.53	**90.13**	**A**
90.00	90.00	90.00	90.00	90.00	85.00	**88.50**	1.32	**89.82**	**B**
60.00	65.00	54.00	50.00	57.25	100.00	**70.08**	2.00	**72.08**	**F**
100.00	100.00	100.00	100.00	100.00	59.00	**87.70**	2.00	**89.70**	**F**
90.00	90.00	90.00	90.00	90.00	90.00	**90.00**	0.00	**90.00**	**A**

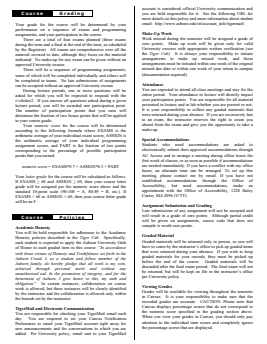
Ignore the percentages in shown in Canvas!

Course Policies

Read the entire syllabus and ask me questions if there is any part that you don't understand.

You are responsible for everything in the syllabus.





Your approach to the course

Learning to develop software is in some ways like learning to play a sport or a musical instrument. You can read, listen, and think all you want, but that's useless without practice.

You have to take a hands-on approach to this course.

Attend class and ***participate***.

Read before you come to class.

Practice after you leave class.

Engage in the course.

The Auburn Creed …

Good advice from George Petrie:

"I believe in work, hard work."

Deliberate Practice