Topic 1
Course Introduction

Chapman: I didn't expect a kind of Spanish Inquisition.
Cardinal Ximinez: NOBODY expects the Spanish Inquisition!
Our chief weapon is surprise...surprise and fear...fear and surprise.... Our two weapons are fear and surprise...and ruthless efficiency.... Our three weapons are fear, surprise, and ruthless efficiency...and an almost fanatical devotion to the Pope.... Our four...no... Amongst our weapons.... Amongst our weaponry...are such diverse elements as fear, surprise....

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Who Am I?

- Lecturer in CS department since 2000
- Undergrad Stanford, MSCS RPI
- US Navy for 8 years, submarines
- 2 years Round Rock High School
- Wife (Kelly) is a nurse.
  - 2 daughters, Olivia and Isabelle

What We Will Do Today

- Discuss course content and procedures

- What will we do in this course?
  - Learn how to solve problems and implement the solutions as computer programs in the Java programming language
  - Not so much about learning the language but how to solve problems
  - the language we use really is secondary
  - you won't always use Java in other courses
  - by learning one language also learn how to learn another programming language

Computer Science

- Study of computation (information processing)
- Many subfields
  - graphics
  - networking
  - artificial intelligence
  - algorithms
  - robotics
  - software engineering
  - systems (operating systems, compilers, programming languages)
Introduction to Computation

- Introduction
  - assume you have "never evered"
- Computation
  - creating algorithms
  - implementing them in computer programs
  - to solve interesting and hard problems

Prereqs

- Formal -> Precalculus
- I assume you have basic computer skills
  - email
  - locating files on a computer
  - understanding of a directory structure
  - navigate the web
  - installing programs on your computer
- I assume you have never, ever written a computer program.

Grades

- Final grade determined by final point total and a 900 – 800 – 700 – 600 scale
  - Will be adjusted with plusses and minuses if within 25 points of cutoff: 875 – 899: B+, 900 – 924: A-
- Programming Assignments: 220 points
- Quizzes: 130 Points
- Javabat homework: 49 points
- Midterm 1: 125 points
- Midterm 2: 175 points
- Final: 350 points
- 49 points of “slack” in non exam components
Performance Last Time

- In Fall of 2008 (last time I taught) 128 students enrolled in the course.
- 94 students got a C or better. 51 A's, 28 B's.
- 17 students got a D or F.
- 17 students dropped the course.
- The majority of students getting Ds or Fs missed one or more exams without an excuse, had a failing homework average, and a failing quiz average -> they quit trying.

Course Materials and Procedures

- This information is important!
- If you are new to university level classes, you may be surprised by how much of the responsibility for knowing what to do in a class is up to you.

Course Materials and Procedures

- web site
  - www.cs.utexas.edu/~scottm/cs305j
  - most materials you need are on the web site
  - links, assignments, schedule, coding samples, study materials, section problems
- schedule
  - on the web site
  - schedule of topics
  - includes readings from the book
  - includes links to the slides I use in class
    - posted a day or two in advance. I will not bring copies after today
    - slides are a reference only. We will diverge from the slides on many occasions
  - includes due dates
- syllabus
  - very important
  - like a contract between instructor and students
  - policies for the course
  - online with links to more information
- book
  - is required
  - readings and extra problems on schedule are from the book
Course Materials and Procedures

- Lecture
  - lecture / discussion with instructor, MWF
  - not just lecture, I ask questions of you and I encourage you to ask questions of me
  - please leave the laptops shut

- Discussion Section
  - with graduate teaching assistant, Tuesdays
  - coding quiz at the start of each, similar in nature to some test questions
  - your chance to ask questions on the assignments and do practice problems

Assignments (and practice problems)
- where 80% of your learning will take place
- for learning, not evaluation -> low point value
- posted to class web site
- see assignment page for general guidelines
- creating programs using Java
- usually a complete program
- sometimes parts of a larger program
- some assignments done as individual, some can be done with a partner
**Course Materials and Procedures**

- **Still more on assignments**
  - **VERY IMPORTANT**: must get account for CS department labs -> see syllabus for procedure
  - turn in assignments to your lab account via the turnin program
    - see link to software on class web page on how to use turnin program
  - turn in the correct thing!
  - slip days, 6 total for the semester

- **And yet more on assignments**
  - graded by teaching assistant and proctor
  - scores posted to egradebook -> link on class web site
  - individual assignments are just that, individual
  - sharing solution code is cheating -> F in the course
  - solutions checked with plagiarism detection software

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**Exams**

- 2 midterms in class, Wednesday, February 24 and Wednesday, April 7
- final, Monday, May 10, 2 – 5 pm
  - the final will NOT be given early
- majority of final grade based on test performance
  - bit of a catch 22
- tests consist of short answer questions and coding questions
- tests scores curved if instructor feels necessary.
  - Only up, never down

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**Javabat Problems**

- Small scale problems
- 7 sets
- create account, grant access to TA
- [http://javabat.com/](http://javabat.com/)
Succeeding in the Course

- Randy Pausch, CS Professor at CMU
- "When I got tenure a year early at Virginia, other Assistant Professors would come up to me and say, 'You got tenure early!?!?! What's your secret?!?!?' and I would tell them, 'Call me in my office at 10pm on Friday night and I'll tell you.' "
- Meaning: Some things don't have an easy solution.
- Some things simply require a lot of hard work.

Doing Well

- The students who do well in this class usually:
  - ask questions and get help when needed
  - do the readings
  - start early on assignments
  - attend lecture and discussion sections
  - do the Javabat problems
  - participate on the listserv
  - do the extra problems from the book
  - do the Practice It problems from the schedule
  - study for tests using the old tests
  - study for tests in groups

Course Materials and Procedures

- Where to get help
  - email listserv, TA, or instructor
  - instructor, teaching assistant, and proctor lab hours
  - other students (but not on assignments!!!)

Course Software

- can work in CS department microlab, 5th floor of Painter Hall
- login via CS account name and password
- can work at home if you wish
- Java. Free. Web page has details under Software. (JDK 6.0)
- Optional IDE. Recommended IDE is BlueJ, also free
- Purpose of first assignment is to learn course software