

# CS111: Intro to Computer Science

- Redesigned last semester to use Java, an object-oriented programming language
- CS111 is expected to be **difficult and challenging**
- Grades last semester (of students who took the final exam):
  - 13% A, 21%B, 30%C, 18% D, 18% F
- **Moral: keep current with coursework; pay attention to deadlines!**

# CS111: Introduction to Computer Science

- **Required Work: 3 exams, 6 programming assignments, recitation quizzes**
- **Course to use the computer for communication and instruction as much as possible - *paperless course***
- **Use of the Web as an instructional tool**
- **Special permission, limited availability, not before Friday, Jan 23rd. Signup in class and send email explanation to ryder@cs**

# Class Webpage

- **Webpage: <http://remus/cs111>**
  - **All assignments**
  - **Syllabus**
  - **Email to instructors**
  - **Tutorials on Unix**
  - **Recitation notes**
  - **Lecture notes**
  - **Calender of important course dates**
  - **Pointers to useful websites**

# Requirements

- **Strong background in high school mathematics and science courses**
- **Co-requisite of Calculus I (can take concurrently)**
- **Determination to work hard and keep up-to-date on coursework**

# Requirements

- **On-time submission of assignments**
  - **Lateness policy: 1/3 off every 24 hour period**
- **Active participation in class by asking questions in lecture, in office hours, or on the newsgroup, especially when problems arise (so we can fix them)**
- **Take responsibility for doing your own work**

# Allowed Collaboration

- **Discussion of assignments by a small group of students is allowed**
- **Each student must write his or her own Java code**
- **Copying code is *cheating***
- **If identified, cheating will be severely punished**
- **Exams *always* have *several* questions based on the assignments**

# CS111: Facts

- **Instructor: Professor Barbara Ryder**
  - **office: CoRE 311 (Busch Campus), 445-3699**
  - **email: ryder@cs.rutgers.edu**
- **Sections 1-6, Lectures MW, 8:10am-9:30am in Scott-123 (CAC)**
- **Recitations during first two weeks in Satellite or Records Hall (CAC)**

# CS111: Facts

- **TA's:**
  - **Ruchika Agrawal (sects 2,6) ruchikaa@remus**
  - **Florin Isaila (sects1,3) isaila@remus**
  - **Steve Schirripa (sects 4,5) stevers@remus**
- **Office hours - weekly, to be posted on webpage**
- **All class announcements posted on webpage - read it each time you logon**



# First Two Recitations

- **Meet in computer lab**
- **Create an account using the Macs; can use subsequently on Macs, X-terms and PCs**
- **Learn to use netscape for email**
- **Learn simple Unix file commands to do Assignment 1 (create a personal webpage)**
- **Learn emacs editor by running **teach-emacs****

# Set Password

- **Pick something easy to remember but not easy to guess**
- **Use numbers and letters in combination**
- **Try phrases like “we hold these truths self-evident” which yields the password **whttse76** from the 1st letter of each word plus 1776**

**DON'T USE THIS PASSWORD**

# Set Password

- **Try using a combination of name and date that no one will know (e.g., your parents' anniversary, your grandmother's birthday and middle name, etc.)**
- **Have several example passwords to try in case your first choice is rejected**

# Assignment 1

- **Due by 1:00am on February 2nd**
- **Copy our default webpage**
- **Edit in your information**
- **Save your changes**
- **Make webpage readable by everyone**
- **Email the URL to your TA**

# 111 Incantation

- **Standard “safe” Unix setup for your protection**
- **Must use at first; can change later**
- **Type this at start of your session -**  
**`source /usr/local/class/cs111/bin/setEnvironment`**

# Normal Setup - Five Windows

- **Unix window for typing commands**
- **Netscape window for reading Java docs and Web surfing**
- **Netscape window for email**
- **Emacs window for creating Java files**
- **Application window for communicating with your running Java program**

# When you are stuck

- **Help**
  - **Send email to `help@remus`**
  - **Call 445-2443 when all else fails**
- **Logout**
  - **Select from menu**

# Tools we're using

- **Java - an object-oriented programming language**
- **Netscape - a browser program, much like a web-based filing system**
- **Unix - an operating system**
  - **DOS, MacOS**
  - **Files, directories, on-line help**
- **Emacs - an editor**



# What is Java-based CS111?

- **Not a course in Java**
  - **Not going to program GUI's, applets or threads**
- **Not a course in how to make webpages or program on the World Wide Web**
- **Not a course on Unix**
- **Not a course on programming**

# What is Java-based CS111?

- **Problem solving**
  - **Defining the problem**
  - **Designing a solution**
  - **Implementing a solution**
  - **Testing your solution and debugging it**
  - **How to decide your solution “works”**
- **How to do this in an object-oriented style?**

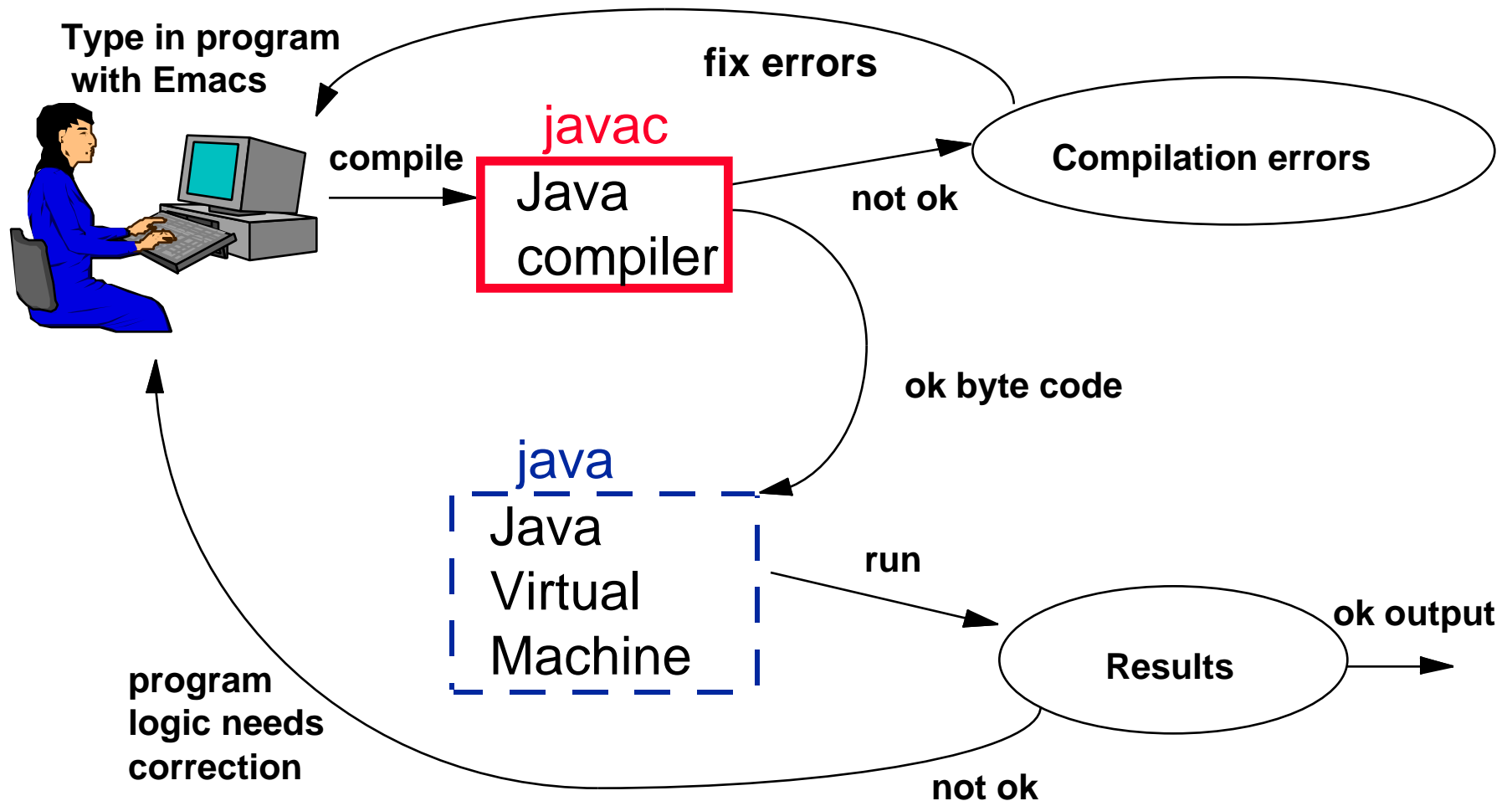
# Airport Simulation

- **Objects - airplanes, crew members, food trucks, baggage trams, etc.**
- **Actions**
  - **removeBaggage** for baggage trams
  - **takeOff** for planes
  - **loadMeals** for food trucks
- **Need to create a set of these interacting objects and test organizational strategies by testing them using defined actions**

# What is Java-based CS111?

- **Introduction to object-oriented programming using Java**
- **Gaining familiarity with CS basics**
  - **Primitive operations common to all programming languages**
  - **Representations for information in the computer**

# How it all works?



# How it all works?

- **Java: platform independent**
- **Compiler**
  - **Validates code and translates into machine-understandable form**
- **Errors**
  - **Compilation**
- **Interpreter: a line-by-line compiler**
- **Editor: for creating text in the machine**

# How it all works?

