CSE 113 A

January 17 – 21, 2011

Welcome

- Please make sure you get a copy of the syllabus (extra copies are available at front).

CSE 113 – Introduction to Computer Programming I

- Instructor:
  - Dr. Adrienne Decker
  - Office: 130 Bell Hall
  - Email: adrienne@buffalo.edu
  - Email you send me should be from your UBIT email account and should include your full name and which course you are taking.

CSE 113 – Introduction to Computer Programming I

- Office Hours:
  - Monday 10:30–11:20
  - Wednesday 10:00–11:20 and 2:00–2:50
  - Friday 2:00–2:50

Information on the Web

- All course content will be on the course website:
- http://www.cse.buffalo.edu/faculty/adrienne/SP2011/cse113
- UBLearns will be used to post course grades

Course Structure

- Lecture (3 hours each week)
- Recitation (2 hours each week)
  - You should be registered for a recitation section and a lecture.
  - **Recitations do not meet this week.**
- If you are interested in changing your recitation section and are unable to do so through the registration system, please fill out Recitation Change Request Form.

Course Description and Prerequisites

- This course is an introduction to computer programming for non-majors. Intended computer science or computer engineering students should not take this course.
- There are no prerequisites for this course, but you should have some familiarity with a computer (that is, you should have used one before).

Textbook

- Michael Kölling – Introduction to Programming with Greenfoot: Object-oriented Programming in Java with Games and Simulations
- The package (paper book and eBook) is available at the University Bookstore, Greeks and Sneaks.
- The paper book is available through many outlets.

Computing Resources

- Projects for this course will be completed on the School of Engineering's computer systems.
- You will be receiving an account on these systems.

Course Grades

- 45% - Exams
  - Four in-class exams – lowest grade dropped. Dates posted already on the course website.
- 35% - Programming Exams (3)
  - Two take place in recitation during the semester, one during final exam week. Dates listed in syllabus and on course website.

Course Grades

- 20% - Programming Assignments
  - Ten assignments each worth 1.5% of your grade. One to ten practice assignments worth a total of 5% of your course grade.

Course Grades

- Important Note:
  - If you do not attempt the third practical exam (or are not allowed to take the third practical), the highest grade you can earn in the course is an F.
  - You will not be allowed to take the third practical exam if your grade on ANY of the ten programming assignments is below 50%.

Letter Grades

- See chart in syllabus.
- There is no curve on the course grades. If your average falls in between the cutoffs, that is your grade.

Course Policies

- Re-grading – any questions about graded work must be raised within one week of the return of the work.
- Incompletes – we will follow the university's policy on incompletes – unless you meet the criterion, you will not get an incomplete.

Course Policies

- Disability Services – If you are registered, please bring me the letter indicating your accommodations.
- Athletics – If you are an athlete, please come to speak with me about how that will effect this course this semester.

Course Policies

- Disruption/Behavior in the Classroom
  - Take note of the University's policy on this issue (in syllabus)
  - Be respectful of each other

Course Policies

- Academic Integrity
  - Breaches of academic integrity will be investigated and punishments imposed in accordance with the University's policies AND my department's policies.
  - My department's policy is that ANY breach of academic integrity is punished with an F in the course (no more lenient punishments allowed).

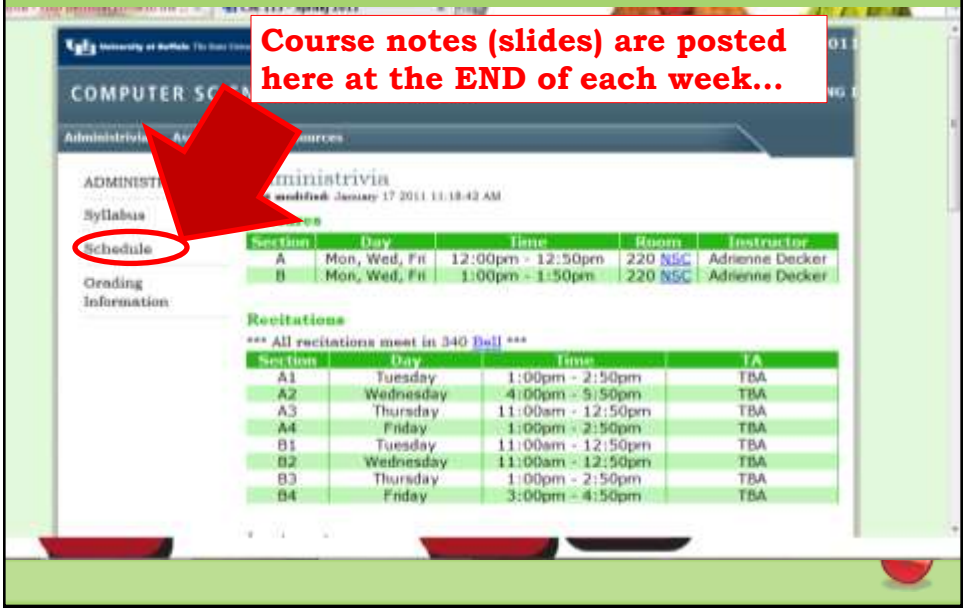
Syllabus Confirmation

- You need to go to UBLearns and complete the syllabus confirmation "test" that is now available in the course.
- Failure to complete this "test" will render you ineligible to take the third practical exam.
- You have until the end of the day, Monday, January 31, 2011 to complete the "test".

FAQ

- Where are the slides posted?

Answer



CSE 113 - Announcements

- Pick up (and READ) syllabus if you have not already done so.
- No recitations meet this week.
- Recitation change form (if you are interested in changing your recitation day/time).
- Syllabus Confirmation "test" on UBLearns needs to be completed by 1/31/11.

What is Programming Like?

- Structured
- Specific
- Detail-oriented
- Organized
- Well-thought out
  - Considers many possibilities

What is Programming Like?

- It's creative
- It's fun
- It's an art… you need to practice to get good at it

Why?

- Programming has all of those characteristics (and more) mainly because of the underlying structure of the computer itself.

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What does a computer understand?

- 0's and 1's (zeros and ones)

Bits and Bit Strings

- The 0 or 1 is called a binary digit (bit).
- A sequence of bits is called a bit string.
- 8 bits together is called a byte
  - 1024 bytes = 1 kilobyte (KB)
  - 1024 kilobytes = 1 megabyte (MB)
  - 1024 megabytes = 1 gigabyte (GB)
  - 1024 gigabytes = 1 terabyte (TB)

What do they mean?

- 0100101 is a bit string
  - What does it mean/represent?

Interpreting Bit Patterns

- Letters
- Numbers
  - Integers (whole numbers)
  - Floating point (decimal numbers)
    - Why are there two types of numbers?

Encoding machine instructions

- Use bits to encode those as well
- When we want the machine to follow those instructions:
  - Fetch
  - Decode
  - Execute

Programming Language

- Language we can use to write computer programs
- Similar to and different from natural language.

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Similarities to Natural Language

- Syntax – Grammar
- Semantics – Meaning
- Written down
- Read

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Differences from Natural Language

- Rarely spoken

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Tools

- Editor – Place to type the program
- Compiler – Translator
- Execution Environment