CSCE 181
Intro to Computing

Instructor: Dr. Yoonsuck Choe

Today's Class

- Review of the Syllabus
- Brief review of the department
- Brief overview of the CS Curriculum
- Brief overview of the Writing Center
- First writing assignment
- Reading assignment

slide credits (up to Writing Center slides): Jinxiang Chai

Syllabus

- Instructor
- TA
- Class meeting time
- Goals, objectives, and outcome
- Topics and Schedule
- Textbook and website
- Grading

Instructor

- Dr. Yoonsuck Choe
- Web: http://faculty.cs.tamu.edu/choe
  - Research: computational modeling of the brain; machine learning
- Email: choe at tamu.edu
- Phone: 845-5466
- Office: HRBB 322B
- Office hours: Mon/Fri 2pm-3pm

Teaching Assistant

- Mr. Stephen Probus
- Office: HRBB 339
- Office Hours: Tue/Thu 3:45pm-4:30pm, Wed 11:00am-11:45am
- Email: probus at neo.tamu.edu

Class Meeting Time

- Seminars will be presented on Tuesdays and/or Thursdays during the semester.
- There will be a total of 13-15 seminars during the semester.
- You are responsible for checking the seminar schedule on the course homepage.
- Be sure to check each monday and wednesday evening as sometimes seminars will be announced/cancelled at the last moment.

Goals

- Introduction to the broad field of computing
  - Include presentations on how fundamental concepts are used in end products and research
- Introduction to technical writing
  - Presentations on writing (next two weeks)
  - Required readings on writing (from the textbook)
  - Significant writing assignments (this is a 'W' course).

Topics and Schedule

- We will meet 13-15 times
  - Meet once a week (Tuesday and/or Thursday, check schedule of the class)
  - Introduction (1)
  - Technical writing & brief history of computer science (2)
  - Industry talks & faculty talks (10-12)

Textbook & Website

- Required

  - Justin Zobel, Writing for Computer Science, second edition, Springer, 2004.

  - Excellent reference book, not just for this class but throughout your undergraduate career (and beyond)

- WebCT: http://elearning.tamu.edu,

  - Check often for: Writing assignment grades and other statistics

- Course website: (from my home page)

  - http://courses.cs.tamu.edu/choe/12spring/181

Assignments

- Six short written assignments (1 page)
- Most will be a review of a lecture (classes 4 – 13)
  - Summarize topic, lecture information,
  - Give personal view
  - You have two weeks to complete each short assignment

Final Report

- A 5-7 page document due by the end of the semester.
- Topic of your choice
  - Pick the topic by 2/16.
- Outline, references, drafts will be required along the way.

Late Policy and Submission

- **Short reports: 10% deduction per day** late for each short report.
- **Final reports:** For each of the deadlines that is not met (topic, outline, draft, final version), 10 percent will be deducted from your final report grade.
- **Assignment submission:** All assignments and final reports should be submitted via TAMU elearning website.

Grading

- **Grading is on a pass/fail basis.**
  - To receive a satisfactory grade, you must complete all of the following satisfactorily.
- **Short Reports:**
  - Complete **six** short written reports with a grade of 7 or higher (out of 9-10)
- **Final Report:**
  - Complete this report with a grade of 70 or higher (out of 100)
- **Attendance:** mandatory (no more than 2 unexcusable absences)
- **Class Participation:**
  - 3 or more counts of disruptive behavior -> "fail"
  - 3 questions during lectures required. Otherwise "fail".
  - Reading assignments are mandatory. Pass 2 quizzes out of 3 to fulfill this requirement.

The CS Department

- Faculty: http://www.cse.tamu.edu/people/faculty
  - Tenured/Tenure-Track Faculty
    - Teaching, research, and service
    - Assistant Professors: New. Untenured.
    - Associate Professors: More established. tenured
    - Professors: Fully established. tenured
  - Teaching Faculty
    - Primary duty is teaching of students

The CS Department

- Administrative Staff, Accounting Staff, Facilities Staff
- Advising

  http://www.cse.tamu.edu/department/groups/advising
  - Dr. Rick Furuta (CS); Dr. Vivek Sarin **(CE)**
  - Marilyn Payton
- Computing Services Group – HRBB 2nd floor
  - Helpdesk

Student Organizations

- Aggie Women in Computer Science (AWICS)
  - http://awics.cs.tamu.edu/
- Student Engineers' Council (SEC)
  - http://sec.tamu.edu/
- Texas A&M Computing Society (TACS)
  - Student chapter of ACM and IEEE-CS
  - http://tacs.cs.tamu.edu/
- Texas Aggie Game Developers (TAGD)
  - http://tagd.cs.tamu.edu/
- Upsilon Pi Epsilon (UPE) Computer Science Honor Society
  - http://upe.cs.tamu.edu/

The CS Department

- Look at the department website:
  - http://www.cse.tamu.edu
  - Lots of information there to help you learn about the department
- Also, individual faculty, research groups have their own websites

The CS Curriculum

- CS curriculum
  - Give students more Computer Science fundamentals early on
    - Most fundamental information in first 2 years
  - Give students more flexibility later on
    - Allow students to tailor degree to match interests
  - Intro class to give an overview of Computer Science
  - Capstone class at the end
  - Developed in conjunction with industry
  - Have necessary background to obtain industry job after freshman year

The "Intro" Sequence of CS classes

- Semester 1:
  - CSCE 181: Intro Seminar
  - CSCE 121: Intro to Programming in C++
- Semester 2:
  - CSCE 121: Data Structures and Algorithms
- Semester 3:
  - CSCE 314: Programming Languages
  - CSCE 312: Computer Organization
- Semester 4:
  - CSCE 313: Computer Systems
  - CSCE 315: Programming Studio

Upper Level

- Four "Tracks" of classes:

http://www.cs.tamu.edu/academics/undergraduate/cpsc134-electives-110426

  - Algorithms/Theory
  - Systems
  - Software
  - Information and Intelligent Systems
- Total of 7 courses to be taken: 411 Algorithms is mandatory
  - At least 1 class from each track (breadth)
  - At least 3 classes should be from one track (depth)
  - Remaining class in any track
- Also: Upper level seminar class (481), Senior Capstone class (482)

University Writing Center

- See www.writingcenter.tamu.edu for resources and to make appointments
- Location:
  - 214 Evans Library
  - 205 West Campus Library
- Mission: Provide students of TAMU with the opportunity to enhance written communication skills through the use of face-to-face, online consulting sessions, and other resources

UWC: Hours

- Evans Library
  - Sunday: 5:00pm – 10:00pm
  - Monday – Thursday: 9:00am – 8:00pm
  - Friday: 9:00am – 2:00pm
- West Campus Library
  - Sunday: 5:00pm – 10:00pm
  - MTR: 9:00am – 10:00pm
  - Wednesday: 10am – 10pm
  - Friday: 9:00am-2:00pm

In-person Sessions

- Sessions begin on the hour and can last up to 45 minutes.
- Best to make an appointment one day in advance
- Allow drop-in's. More than 5 minutes late results in a forfeit of the appointment.
- Bring a copy of your assignment and prioritize your concerns

First Writing Assignment

- Short report (1 page), due 1/30 11:59pm.
- Topic: 12 pt Roman, Arial, or Helvetica font, 1-inch margin all around, US letter paper, single space. At least 550 words.
- doc, docx, or rtf format only.
- Topic: How computing changed the world and how will it in the future

First Assignment Tips

- Must talk about both “past” and “future”.
- Think about how computing is used in your daily life. Focus on 2 or 3 related tech.
- Do some research: Read up a bit on latest technology (news, blogs, etc.)
- Many non-obvious places, not just internet and computer games: GPS, stock trading systems, government administration, etc.

First Assignment Tips

- Do not make it a “laundry list” just containing a list of all the cool stuff you can imagine. Fully discuss each item. Avoid cliches.
- Think about how things were done before and after the invention of X. Start with your personal experience and project that onto the society.
- Think about how certain inventions entailed others.
- Again, **READ UP** to gather material for your thought. Every day, put aside 15-20 minutes to read about the topic and **take short notes.**

Practicing Writing

- Practice writing everyday: One short paragraph. Any topic. Gather your thoughts, write, read, edit, read, edit. ... Shouldn't take more than 15-20 minutes.
- Example: read a news article and write down your thoughts. Do not **merely** summarize.
- Often writing is difficult because the idea is not there, not because of the technicality: get your ideas straight first.

Practicing Writing

- Start with a topic where you already have a strong opinion and/or a deep interest: “X is overrated!”, “X is cool!”, “X is really interesting because ...”.
- This is **technical writing,** not literary writing, so be precise and do not embellish your sentences (you are not writing an epic!).

Practicing Writing

- Mock example:

Today, I read a news article about X. The report was about new scientific results indicating that X is in fact Y. This seems to be a significant finding since, although not mentioned in the article, Y has the property of Z that can lead to P. The societal impact of this could be huge because of the critical role P plays in Q.

Required Readings

- Read Chapters 1 and 13 of "Writing for Computer Science"