

History of Computing

4003-590-03 Spring 2005-2006 (20053)

Description

This course covers the history of computing from prehistory until the point when computers became a commodity. The object of the course is to give the student an appreciation of our heritage and why things are the way they are today. We will also cover important themes in computer history. I will give some examples from my personal involvement with computers for over 40 years.

Course Web Page

<http://www.cs.rit.edu/~swm/history>

Instructor

Sidney Marshall

bldg. 70, room 3655, swm@cs.rit.edu

<http://www.cs.rit.edu/~swm>

Office hours posted on web site and outside of office and by appointment.

I also answer questions via email

Lectures

Tuesday/Thursday, 4:00-5:50, 70-2455.

Books

The textbook will be A History of Computing Technology by Michael Williams - ISBN 0-8186-7739-2

Other Materials

I will try to distribute copies of the slides that I use at the start of class.

Information about homework assignments, exams, etc. will be linked from the course page on my home page.

Homework Assignments

There are 6 or 7 graded homework assignments or quizzes. Each homework assignment will be collected and graded. Homework assignments are due on Wednesday, and posted at least 6 days before they are due. The actual assignments will be available on the reading and homework assignments.

Unless it is specifically stated otherwise, you may work on and submit your homework in groups of 1 or 2. If you choose to work as a group of 2, both of you should contribute significantly to the solution for every question. You should submit only one copy of the homework with both your names on it. You are not allowed to discuss the homework with anyone except your homework partner and me. You should only submit work that is completely your own and you should be able to explain all of your homework to me.

Homework submissions are due at the start of class (4:00PM). I will not accept late assignments (not even 5 minutes late) for any reason. If you are unable to attend class (on time), you must ensure that I receive your homework before it is due. All homework assignments will be weighted equally.

I will stop answering homework questions on the day it is due.

Exams

Midterm Exam

The midterm exam is tentatively scheduled for Thursday, April 13, 4:00-5:50, in 70-2455. The exam is closed book and notes.

Final Exam

The final exam will be given in the middle of May after the scheduled classes. I will announce the time as soon as I know it. The exam is closed book and notes.

Exams can not be made up except for real emergencies in which case proper documentation (like a doctor's note) will be required. If at all possible, you should contact me prior to the exam. Oversleeping, cars that don't start etc. do not constitute a valid excuse.

Project

Each student will be required to do a project or write a paper. You may work on and submit your project in groups of 1 or 2. If you choose to work as a group of 2, both of you should contribute significantly to the project. You should submit one copy of the project with both your names on it. Possible choices for the project include

Writing a paper on pioneers, computer architectures, computer languages, computer companies, operating system, computer related technology etc. All papers must have technical content, i.e., a technical description of the problems and/or solutions dealt with by the pioneer, computer architecture, computer language, or computer company.

Writing a simulator of an early computer architecture or artifact

All projects or papers must be approved by me.

Projects are due Tuesday, May 16th in class

Evaluation

30% Homework / Quizzes

30% Paper or Project

20% Midterm

20% Final

Numerical grades will be converted to letter grades according to the following scale:

> 90%: A; 80%-90%: B; 70%-80%: C; 60%-70%: D; < 60%: F.

Disputing Your Grade

If you feel that an error was made in grading your homework or exam, you have one week from the moment the graded work was handed back to dispute your grade.

Academic Dishonesty

The DCS Policy on Academic Dishonesty will be enforced.

You should only submit work that is completely your own. Failure to do so counts as academic dishonesty and so does being the source of such work. Submitting work that is in large part not completely your own work is a flagrant violation of basic ethical behavior and will minimally be punished with failing the course.

Topics in the course will include most of

Prehistory of computation

Graphical computing

Mathematical tables

Slide rules

Early computation devices and techniques / analog computers

Charles babbage's "Analytical Engine"

Mechanical and analog computers

Early electronic computers

Important people in the history of computers

Early computer languages

Early computer architectures

Early operating systems

Early user interfaces

Timesharing

The rise of networks and networking