

CIS 834 Syllabus

Historical Perspective: Napier to Torvalds

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Outline: [CIS 834 Outline](#)

Required Text - None

We will be utilizing the Web exclusively for information and research.

Required Materials

Computer with internet!, of course.

Course Description

The need for accurate and subsequently ever faster computations in science and engineering provides the background for the age of computers. Beginning with the development of logarithms and proceeding to the development and deployment of super computer computations using the Linux operating system. 9 hours lecture.

Prerequisite - None

Course Objectives

Upon successful completion of the course, students should be able to demonstrate the following activities:

1. Identify historical figures that have influenced the computing field.
2. Discuss concepts that have influenced the computing field.
3. Recognize key software developments used in operating systems and applications.
4. Explain key hardware developments impacting coding platforms.

Course Content

A very short list of personalities and their contributions impacting the computer age:

1. Napier, Oughtred
 2. Stone-Weierstrass
 3. Babbage, Ada
 4. Von Neumann, Turing
 5. Codd
 6. Diffie-Hellman
 7. Ritchie, Torvald
2. A very short list of hardware and software concepts in the computer age:
1. Slide Rules, Calculators, Spreadsheets
 2. Analog vs. Digital vs. Hybrid
 3. Main Frame
 4. Databases
 5. Encryption
 6. Servers
 7. Quantum computing
 8. The Blockchain

School and Class Rules

Attendance and participation: You must at least watch and review the 7 ZOOM lectures, then post the 15 to 30 minute assignment to canvas after each lecture. It is naturally preferred to show up for the morning or evening Virtual Zoom classroom for pseudo-face to face interaction.

Classroom decorum: Listen and participate. You are expected to be cooperative and respectful during class. Disruptive talking or behavior is considered rude and you will be asked to leave if you persist.

Statement on Academic Dishonesty:

RCC defines plagiarism as, "Presenting another person's language (spoken or written), ideas, artistic works or thoughts as if they were one's own." This includes using someone else's C++ code. Plagiarism is academically dishonest. Students must make appropriate acknowledgment of the original source where material written or compiled by another is used." Cheating or dishonest practices, such as turning in the writing of someone else and claiming it as your own, will result in your receiving a failing grade on the assignment and possibly for the course.

ADA Information

Please let me know if you need accommodations for a documented disability. The office of Services to Students with Disabilities will also be able to provide help and assistance.

Course Activities and Class Format

Daily classroom instruction will consist of lectures, discussions, and demonstrations, as well as hands on work, both collaboratively and individually. Lecture will be delivered verbally, supported by PowerPoint presentations, chalk board drawings, and on occasion, paper handouts, among other methods. Periodically, students will be required to interact and work in groups or teams to reinforce learning.

Reading Assignments: Reading assignments will be given and could be followed with impromptu quizzes which will be graded pass/fail and count as your attendance for lecture or lab.

Canvas

It is the student's responsibility to visit Canvas and stay current with respect to assignments and grades. **Course materials:** Course materials such as the syllabus, homework assignments, and review materials will be posted.

Homework/Projects/Exams: will be posted.

Announcements: In addition to making announcements in class, all announcements will be posted on.

Emails: All emails sent to and by me will be sent inside of Canvas.

Your grade will be based on completing all assigned activities. 70% score leads to pass credit.

Tentative Class Schedule (Subject to change)

Assignments

- 1. Napier/Oughtred/Slide Rules**
- 2. Polynomials/Babbage/Ada**
- 3. VonNeumann/Turing**
- 4. Codd and Diffie-Hellman**
- 5. Ritchie/Torvalds**
- 6. Servers to Quantum Computing**
- 7. Bitcoin and the Blockchain**