CSCI 160 - Computer Architecture 1

Fall 2025 Syllabus

Scheduling information

Location: Room 615 West Building

Lecture time: 11:30 AM to 12:45 PM

Lecture dates: Tuesdays and Fridays; see academic calendar for college closures and other important dates.

Instructor information

Instructor: Melissa Lynch

Email: melissa.lynch@hunter.cuny.edu

Office Hours: Mondays and Thursdays via Zoom (by appointment; schedule in lecture)

Textbook

Digital Design, 5th edition by M. Morris Mano & Michael D. Ciletti; Pearson Prentice Hall, 2012, ISBN10: 0132774208.

Other editions OK but problem/example numbers may vary.

Topics and learning outcomes

We will spend the semester learning how to design digital circuits as used in modern computing devices. After a review of logic, binary numbers, and boolean algebra (Chs 1 & 2), we will discuss gate level implementation and minimization (Ch 3), and various specific combinational circuits (Ch 4). From here we move to a study of synchronous sequential logic (Ch 5), various types of registers and counters (Ch 6), and various types of memory (Ch 7).

This class supports the Department's Program Learning Outcome 1B (demonstrating an understanding of the overarching relationships between hardware and software) as well as starting students on the road to 1C (knowledge of finite automata). The successful student will be able to implement any combinational circuit with any complete set of gates and any sequential circuit with any type of flip-flop. Abstraction will be reinforced through the use of sub-circuitry to implement more useful circuits (e.g. using half adders to build adders which are then used to build n-bit adder-subtracters).

Grades

You will be assessed through homework assignments and examinations. The grading breakdown is as follows:

- Midterm Exam 1 - 20%
- Midterm Exam 2 - 20%
- Midterm Exam 3 - 20%
- Final Exam - 40%

Refer to the Homework and Exam Information Page for more details on homework and exam logistics.

ADA Compliance

In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Hunter College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical and/ or Learning) consult the Offce of AccessABILITY located in Room E1124 to secure necessary academic accommodations.

Policy on Academic Integrity

Hunter College regards acts of academic dishonesty (e.g. plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The College is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures.

Policy on Bullying

Bullying, cyberbullying, online hate, intimidation, threats, harassment, and pressure to share schoolwork are all forms of violence. CUNY holds a zero tolerance stance towards all such acts. The University is committed to prevention of any form of bullying, will respond promptly to threats and/or acts, and will protect victims of bullying from retaliation. As a criminal matter, the New York Attorney General defines cyberbullying as the use of email, websites, instant messaging, chat rooms, text messaging and digital cameras to antagonize and intimidate others. Disrupting a teleconferencing platform (such as Zoom) is a federal crime.

Policy on Sexual Misconduct

In compliance with the CUNY Policy on Sexual Misconduct, Hunter College reaffirms the prohibition of any sexual misconduct, which includes sexual violence, sexual harassment, and gender-based harassment retaliation against students, employees, or visitors, as well as certain intimate relationships. Students who have experienced any form of sexual violence on or off campus (including CUNY-sponsored trips and events) are entitled to the rights outlined in the Bill of Rights for Hunter College.

- Sexual Violence: Students are strongly encouraged to immediately report the incident by calling 911, contacting NYPD Special Victims Division Hotline (646-610-7272) or their local police precinct, or contacting the College's Public Safety Office (212-772-4444).
- All Other Forms of Sexual Misconduct: Students are also encouraged to contact the College's Title IX

Campus Coordinator, Dean John Rose (jtrose@hunter.cuny.edu or 212-650-3262) or Colleen Barry (colleen.barry@hunter.cuny.edu or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123.

See CUNY Policy on Sexual Misconduct Link.

Note that details of this document are subject to change if the need arises.
