CSCI 26700 §01 # 5069
Fall 2026 Microprocessors and Embedded Systems
Monday and Wednesdays 7:00-8:15

Eric Schweitzer

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Finding Your Instructor

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	or by appointment.

In addition, messages can be left for me at the Computer Science Department office, which is located in N-1008 and is reachable at (212)772-5213. Please note that I will only read plain `ASCII text` email, not HTML or MicroSoft Word encoded documents. Also note that any email concerning anything that might fall under the FERPA regulations (e.g. questions about grades or other class related issues) *must* be sent from your "stu-mail.hunter" account.

Materials Etc. You will be expected to purchase, build and program an Arduino based "system". Along with an Arduino, you will probably need additional parts (motors, transistors, sensors, etc.) and tools (soldering iron, pliers, bread-boards, etc.) which you will also have to purchase. Programming the Arduino board is done in a higher level language called Wiring using the Processing IDE. Programs are loaded via a USB cable and perhaps an adapter. The Arduino Uno (R3) (for example) is based on the ATMega 328 processor. It has 2 KB RAM, 32 KB of program space, 6 analog inputs (A to D converters) and 14 digital I/O pins, 6 of which can be set for PWM output. It is a 5V system. There are many other Arduinos, too numerous to list here. Some have other features than the Uno (3V3, more or fewer A2D converters, more or less RAM, etc.) and you are free to choose among them for your project. Note, however, that the Uno (R3) is the "standard" for exam questions and many class demos. Most of these Arduinos support most of the libraries for various external devices like servos and H-bridges.

Grades Grades in 26700 will based on your ability to program and build an Arduino based system, a couple of papers about your project, presentations about your progress and a midterm exam. A few weeks into the semester you will be expected to pick a project to build. Much of your grade (40%) depends on successfully completing this project. 20% will be based on two papers about your project (one proposing the project and the second "wrapping it up"), 10% will be based on zero to

four (depending on class size) "progress reports" (presentations) and the remaining 30% (40% if there are no presentations) will be based on an exam. The exam will be given on Wednesday, November 18. The final paper must be handed in, and the final project demonstrated, no later than the scheduled final. This is currently listed as Wednesday, 16 December, 6:20 - 8:20, but the college has been known to change this, and we must conform if they do.

Please note that paper and project deadlines are "hard". As in any real-time system, lateness is failure.

Outcomes: This course is all about the interplay between hardware and software. Successful students will understand the relationship between software and architecture (Learning Goal 1B). Additionally, because programming will have to be done in a language appropriate to the hardware, students will have to master another programming language to create a substantial project. This supports Learning Goals 2A and 2B. Students will also have to communicate technical ideas in an oral and a written format, in support of Learning Goal 3A.

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.

Academic dishonesty includes (but is not limited to) using artificial intelligence tools to generate content for assignments or exams, including but not limited to language models or code generators, without written authorization from the instructor as well as copying from another person or from a generative AI system or allowing others to copy work submitted for credit or a grade. This includes uploading work or submitting class assignments or exams to third party platforms and websites beyond those assigned for the class, such as commercial homework aggregators, without the proper authorization of a professor. Any use of generative AI tools must be in line with the usage policy for specific assignments as defined in the course of the syllabus and/or communicated by the course instructor.

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/Skype/Blackboard Collaborate Ultra) is a federal crime.

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 Office of AccessABILITY located in Room E1124 to secure necessary academic accommodations. For further information and assistance please call (212-772-4857)/ TTY (212-650-3230).

Cell phones, 'smart' glasses, and other electronics: All cell phones, pagers, etc. should be inaudible during class. Laptops and other electronic devices, if used, to be used only for class related activities. Activities not related to class include but are not limited to facebook, twitter, other social networking web sites, "surfing", email, mu*s, hulu, southparkstudios, etc. Any student with an electronic device that disrupts the class or is used for anything other than class related activities will lose two (2) points from their final average (per occurrence). Anyone found using any device during a quiz or exam will receive a 0 on that quiz or exam and will be reported to the Dean of Students. We will scan for active Bluetooth and WiFi devices during quizzes and exams. Expect to explain active connections.

Hunter College 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.
a. 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).
b. All Other Forms of Sexual Misconduct: Students are also encouraged to contact the Director of the Office of Student Conduct https://hunter.cuny.edu/students/student-affairs/office-of-student-conduct/contact/. CUNY Policy on Sexual Misconduct Link:
`https://www.cuny.edu/wp-content/uploads/sites/4/page-assets/about/administration/offices/ovsa/policies/Sexual-misconduct-8.30.18-PSM-2018-005.pdf`

Important Events Baring the unforeseen, these dates, where enforceable, are firm deadlines.

Day 4, Sept. 14 You should have a working Arduino board and IDE.

Day 6, Sept. 23 Paper proposing project due. Note that writing the paper is necessary but not sufficient for the project to be accepted.

Day 8, Sept. 30 Solderday. Bring your irons, stands, etc. to class.

Day 9, Oct. 5 You should have most of your parts ordered by now.

Day 22, Nov. 18 Exam

Day 29, Dec. 16 Last day to demonstrate working project and hand in final paper.

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