

EE 252 Digital Electronics

Spring, 2022

Location: Workman 109
MWF, 10:00 – 10:50

Instructor: R. Arechiga
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Office Hours: MTTh 2:00 pm to 3:30 pm (or by appointment)

Course Description:
Digital Electronics, 3 cr, 3 cl hrs
Normally offered spring semester

Fundamental concepts of digital logic analysis and design. Topics include: Boolean algebra, logic gates, truth tables, simplification methods, multiplexers, decoders, registers, sequential digital design, finite state machines, hardware description language (HDL), and related topics.

Mode of Instruction: face-to-face.

Co-requisite: EE 271 (Mathematical Engineering)

Place in Curriculum: This course is open to majors and non-majors. The EE 252 course is a pre-requisite to the EE 361 Mixed Electronics Lab I.

Course Learning Outcomes: The ability to conduct experiments in digital electronics, and an ability to function on multidisciplinary teams.

Course Requirements:

Textbook:

Title: Fundamentals of Digital Logic with Verilog Design, Third Edition by Stephen Brown and Zvonko Vranesic, 2014.

Homework will be assigned once per week. There will be a short quiz every other Friday. There will be two (or three) partial exams and a final.

Grade distribution proposed is as follows:

Homework: 20%

Quizzes: 10%

Mid-term exams: 40%

Final exam: 30%

Academic Honesty: New Mexico Tech's Academic Honesty Policy for undergraduate and graduate students is found in the student handbook, which can be found at:

<http://www.nmt.edu/student-handbook>. You are responsible for knowing, understanding, and following this policy.

Reasonable Accommodations:

New Mexico Tech is committed to protecting the rights of individuals with disabilities. Qualified individuals who require reasonable accommodations are invited to make their needs known to the Office of Counseling and Disability Services (OCDS) as soon as possible. To schedule an appointment, please call 835-6619.

Counseling Services:

New Mexico Tech offers mental health and substance abuse counseling through the Office of Counseling and Disability Services. These confidential services are provided free of charge by licensed professionals. To schedule an appointment, please call 835-6619.

Respect Statement: New Mexico Tech supports freedom of expression within the parameters of a respectful learning environment. As stated in the New Mexico Tech Guide to Conduct and Citizenship: “New Mexico Tech’s primary purpose is education, which includes teaching, research, discussion, learning, and service. An atmosphere of free and open inquiry is essential to the pursuit of education. Tech seeks to protect academic freedom and build on individual responsibility to create and maintain an academic atmosphere that is a purposeful, just, open, disciplined, and caring community.”

COVID-19 Safety Issues for Face-to-Face Instruction: Students must follow campus-wide safety protocols, including mandatory use of face coverings and maintaining a minimum of 6 ft social distance from other students and faculty. Students should not enter the classroom earlier than 10 minutes prior to start of class, and should exit the classroom within 10 minutes of the end of class. Students who fail to comply are subject to disciplinary procedures. [*Only needed for F2F classes.*]

Title IX Reporting:

Sexual misconduct, sexual violence and other forms of sexual misconduct and gender-based discrimination are contrary to the University’s mission and core values, violate university policies, and may also violate state and federal law (Title IX). Faculty members are considered “Responsible Employees” and are required to report incidents of these prohibited behaviors. Any such reports should be directed to Tech’s Title IX Coordinator (Dr. Peter Phaiah, 20D Brown Hall, 575-835-5187, titleixcoordinator@nmt.edu). Please visit Tech’s Title IX Website (www.nmt.edu/titleix) for additional information and resources.