

EE 252 Digital Electronics

Spring, 2021

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Course Description:

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.

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 1. **Course Learning Outcomes :** The student should be familiar with basic digital design, and to design and analyze digital circuits in Verilog HDL.

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

Course Requirements: Textbook: Fundamentals of Digital Logic with Verilog Design, Third Edition by Stephen Brown and Zvonko Vranesic

Grading:

Homework assigned regularly: 20 %

Quizzes given regularly on Fridays: 10%

Two Partial exams (2x20%): 40%

Final comprehensive exam: 30%

Counseling and Disability Services:

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. The confidential services are provided free of charge by licensed professionals. To schedule an appointment, please call 835-6619.

Academic Honesty: New Mexico Tech's Academic Honesty Policy for undergraduate students is found starting on page 74 of the NMT Undergraduate Catalog,

<https://www.nmt.edu/registrar/2020-2021%20Catalog1.2.pdf>

You are responsible for knowing, understanding, and following this policy.

New Mexico Tech's complete Academic Honesty Policy may be found in the Student Handbook. It includes important information about cheating and plagiarism, consequences of violating the Academic Honesty Policy, and the judicial process if charges are brought. All New Mexico Tech students are strongly encouraged to be familiar with this document.

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."