Fall 2016   EE 231L

EE 231 Lab Syllabus

Topics/Objectives

This lab is designed to augment the Digital Electronics class. Concepts from the class, which include Boolean algebra, logic gates, sequential digital design, finite state machines, etc., will be practiced in the lab on an FPGA. Lab work will primarily center around Verilog.

Instructors/TAs

Dr. Rene Arechiga- Instructor	William Brooks - Assistant TA
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Daniel Wimberly - Lead TA	Christopher Rey - Assistant TA
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Grading

Pre-labs: 20%
Lab Exercises: 60%

(Subsection of each Report)		(Subdivision of Percentages)
Introduction:		20%
Methods:		20%
Results:		20%
Conclusion:		10%
Demonstration of Success:		30%
Subtotal:		**100%**

Final Report: 20%
Total: **100%**

Due Dates/Late Policy

Each student is responsible for informing, in writing, the lead TA and instructor regarding absences and tardiness beforehand. One grace week will be given during dead week where any single lab may be turned in without penalty. No pre-labs will be accepted. Unless proof of an emergency can be produced, the following due dates and penalties are held:

Pre-labs

All pre-labs are due at the beginning of class. There will be a 15 minute grace period during the initial lecture. Any paper turned in after this period will be penalized 50%. No pre-lab will be accepted after the end of the lab period or if there is reasonable suspicion of copying the graded results of a peer.

Labs

All labs are due at the end of the lab. A lab may be turned in at any point two weeks after the due date for 70% of the original grade. No late labs will be graded after this two week period.

Lab Book Expectations

Introduction

The introduction should introduce a reader of the notebook to the project or problem being addressed. Details should include the purpose of the results, succinct overview of the methods, a summary of the problem and why it is applicable to the project, etc. Diagrams or flowcharts are sometimes necessary to explain concepts.

Methods

The methods section should detail a specific approach to solving the problem. A detailed description should include diagrams or flowcharts. This does not necessarily entail an action-for-action tutorial to use the program. A novice user of Verilog should be able to reproduce your results.

Results/Demonstration of Success

The results section should follow directly from the methods section. Quantitative diagrams and/or numbers are required. Thoroughly commented code is required. If no successful results are obtained, a quantitative demonstration of your current progress will gain partial credit. A signature of a qualified TA is required to demonstrate success.

Conclusion

The conclusion should briefly restate the purpose and results of the project. Significant results should be quantified. Do not say whether your liked the lab or not. Such comments, smiley or frowny faces, explosions, or the like belong in the margins.

Safety

When working with live electronics, soldering irons, or other laboratory equipment, students are required to wear their safety goggles.

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.

New Mexico Tech's Academic Honesty Policy for graduate students is found starting on page 59 of the NMT Graduate Catalog. You are responsible for knowing, understanding, and following this policy.

http://www.nmt.edu/images/stories/registrar/2015-2016_UNDERGRADUATE_Catalog_FINAL.pdf

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."