University of Texas at El Paso
Electrical and Computer Engineering Department

EE 2169 – Laboratory for Digital Systems Design I

Summer 2019

COURSE INFORMATION

Room:	Engineering Building. E340
Final exam:	N/A
Course designation:	EE2169
Credit hours:	1
Catalog Description:	Design and synthesis of digital systems using both combinational and sequential circuits.
Prerequisite:	EE1305 or CS1401 with a grade of "C" or better.
Co-requisite:	EE2369 – Digital Systems Design I

INSTRUCTOR INFORMATION

Basavarajaiah Shanmukhayya Totada

Office:	ENG E339
Office Hours:	TBD
E-Mail:	bstotada@miners.utep.edu

TEXTBOOK

None

COURSE MATERIALS

USB Removable Flash Drive
ECE Vectra Lab Student Computer Account (Acquired at Room E319 B)
Binder (to collect and organize the lab reports)

COURSE OUTCOMES / DESIGN SEQUENCE

At the end of this course students will be able to use the Xilinx ISE environment to implement Digital Logic Systems on the Xilinx Spartan 3 FPGA Chipset via Verilog or schematic capture modules.

I. Design Description (schematic capture or HDL)
II. Synthesis (create design into a gate-level netlist)
III. Constraints (specify timing constraints and I/O assignment)
IV. Implementation (compile design into place and route design)
V. Result Analysis (run a test bench and look at ISM simulation results to make corrections if necessary)
VI. Debug (close ISM, edit, and try again)
VII. Device Programming (download design into device)

COURSE POLICIES

- You are required to come to class and be on time.
- Late assignments will NOT be accepted without **written** medical, legal, military, or work justification. Special circumstances will be considered if reported on time, makeup labs are by appointment only.
- Late work submissions will result in loss in grades ranging from 50% to 100% (total loss).
- Group discussions and team problem solving is allowed and encouraged to the degree that every group member contributes and understands the work resulting from the collaboration. Lab assignment documentation (formal Lab Reports) must always be written by each student individually and uniquely in his/her own handwriting and in his/her own style.
- All the work for Prelabs and reports (results and conclusions) must be organized in a binder and ready to present when requested.
- Each student must present a working demonstration of the lab assignment to the TA **before the end** of the lab session in order to earn full credit. Help the person to your right or left, they'll learn and you'll practice.
- Each lab is worth 100 points
- **Academic dishonesty will not be tolerated.** If you are suspected of academic dishonesty, you will immediately be referred to the UTEP OSCCR office, without notice or warning.
- Samples of student work will be collected for quality assurance purposes. Please notify the TA, in writing, if there is any confidentiality requirement.
- All printed work must be stapled, with good presentation.
- Only students enrolled in a specific session are allowed to be in E340 room during the allocated session's time (no guests allowed).
- Drinks and food are **not** allowed in E340 room for the students' and lab equipment safety.
- Electronic devices are only allowed for class purposes. Any other use of cell phones, laptops, tablets, etc. is strictly prohibited.

LAB REPORT GRADING RUBRIC – each lab is worth 100 points

Pre-lab	20 points
Calculations (tables, diagrams, k-maps, ect.)	
Justifications - 1 paragraph	
Demonstration	30 points
Lab Report	50 points
Schematics, HDL, Pictures, Simulation, etc.	
Justifications – 1 paragraph	
Notes of any problems and solutions to those problems	
Conclusion (e.g.):	
Answer questions provided in the lab write-up.	
What is the relationship between the course lecture and how you implemented this lab?	
Comments on what was expected and unexpected from the lab assignment?	
How is what you did in this Lab seen in technologies in the real world? Give examples.	

ATTENDANCE

Class attendance is mandatory and will be monitored. It is the student's responsibility to sign the attendance sheet provided by the TA for each class. Absence in more than 2 classes for any reasons will result in being dropped from the class.

ACADEMIC HONESTY

As an entity of The University of Texas at El Paso, the Department of Electrical and Computer Engineering is committed to the development of its students and to the promotion of personal integrity and self-responsibility. The assumption that a student's work is a fair representation of the student's ability to perform forms the basis for departmental and institutional quality. All students within the Department are expected to observe appropriate standards of conduct. Acts of scholastic dishonesty such as cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in the whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student, or the attempt to commit such acts will not be tolerated. Any case involving academic dishonesty will be referred to the Office of Student Conduct and Conflict Resolution (OSCCR). The Associate Dean of Students will assign a Student Judicial Affairs Coordinator who will investigate the charge and alert the student as to its disposition. Consequences of academic dishonesty may be as severe as dismissal from the University. See the OSCCR homepage at http://sa.utep.edu/osccr/ for more information.

AMERICAN DISABILITIES ACT

If you feel you may have a disability that requires accommodations, contact the Center for Accommodations and Support Services (CASS) at 747-5148 or go to the Union East, Room 106.

DISCRIMINATION

The University of Texas at El Paso does not discriminate on the basis of age, gender, color, ethnicity, national origin, religion, disability, or sexual orientation. Members of the UTEP community are protected from discrimination and harassment by State and Federal Laws.

Instructor reserves the right to change the grading policy as required by the associated course, EE2369.

By signing here:

- I acknowledge that I have received, read, and understood the syllabus for EE 2169 (Lab for EE 2369, Digital Systems Design I) for the Spring 2019 semester.
- I agree to all the policies and will comply to the full extent of my abilities.

Student name: _____

Student ID: _____

Signature: _____

Date: / /