UTRGV COURSE SYLLABUS

UTRGV Course: ELEE 2310 / CMPE 2310 Digital Systems Lab
Instructor Name: Wenjie Dong
Term: Fall 2017
Tel: 956-665 2200. Email: Wenjie.dong@utrgv.edu
Times and location: R 4:30 pm - 7:10 pm, ENGR 2.242 (Edinburg)

Textbook and/or Resource Material
No textbook. Materials will be posted in Blackboard or will be given in labs.

Learning Objectives/Outcomes for the Course
After taking this course, students should be able to
1) Understand the SSI implementations of digital logic circuits.
2) Understand the practical issues of digital circuits, and interpret the experimental results.
3) Use some basic instruments, such as power supplier, multi-meter, and oscilloscope.
4) Obtain information out of text books (chip datasheet from websites).

Preparation
Preparation for the lab involves printing the laboratory assignment and reading it before class. It is essential that you read and understand the lab before class in order to have enough time to complete it in the time given. The laboratory assignments will be available via email or blackboard, depending on the available tool.

Lab Structure
Lab assignments will be performed in groups of two students. A lab report is due the class after a lab is completed. In order to receive credit for a lab report, you must be present in the lab and participate in the experiment. Attendance will be taken at the beginning of every class. If you are not present when attendance is taken you will be considered absent. A record will also be kept of all lab reports that are submitted at the beginning of class. It is your responsibility to ensure you have marked as present and that your report was submitted.

Lab Equipment
Groups will be required to buy a breadboard along with wire cutters and wire strippers, since you will be using them throughout your entire college curriculum. Parts and/or components will be provided at the beginning of class and should be returned upon completing of the assignment or at the end of class.

Grading Policies
Lab Reports:
- Functioning Project: 45%
- Lab Report: 45%

Attendance: 10%
Any amount of plagiarism will be given a grade of Zero for all parties involved.

Absences: Due to the difficulty in preparing the lab for an individual student, no make-up labs are allowed!
Do not turn in a lab report for a lab you were not present for, it will not be graded!

Late Reports: Lab reports are due one week from the assigned date. Lab reports must be submitted by the end of the lab session. Late reports will lose 10% of the credit after the first week, 20% after the second week, and will not be accepted after that. If you know you will not attend class it is your responsibility to submit your report before the scheduled class date. If an emergency prevents you from submitting your report on time, it will be accepted if documentation of the emergency is provided.

Lab Report Format (Out of 45%)
- Objective (5%)
Purpose of activity and expected outcomes.

**Materials and Equipment used (5%)**
This information should be consistent through the complete experiment.

**Procedure (10%)**
The steps taken to investigate the topic.

**Data and after the lab procedure (20%)**
Collected data, graphs, schematics and calculations being displayed in a readable fashion.

**Conclusions (5%)**
Analysis of the data/calculations.

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**Calendar of Activities**
The UTRGV academic calendar can be found at http://my.utrgv.edu at the bottom of the screen, prior to login.

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**Other Course Information**

**Topics (tentative):**
- Introduction and Safety Measurements
- Lab 1: Basics
- Lab 2: Sum of Products
- Lab 3: Product of Sums
- Lab 4: Combinational Logic
- Lab 5: NAND & NOR
- Lab 6: Use of K-Maps
- Lab 7: Half and Full Adder
- Lab 8: Ripple Carry Adder
- Lab 9: Shannon’s Theorem: Multiplexers
- Lab 10: Combinational Logic: BCD + MUX
- Lab 11: Latches
- Lab 12: Flip-Flops
- Lab 13: Synchronous sequential circuits

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**UTRGV Policy Statements**

**STUDENTS WITH DISABILITIES:**
If you have a documented disability (physical, psychological, learning, or other disability which affects your academic performance) and would like to receive academic accommodations, please inform your instructor and contact Student Accessibility Services to schedule an appointment to initiate services. It is recommended that you schedule an appointment with Student Accessibility Services before classes start. However, accommodations can be provided at any time. **Brownsville Campus:** Student Accessibility Services is located in Cortez Hall Room 129 and can be contacted by phone at (956) 882-7374 (Voice) or via email at accessibility@utrgv.edu. **Edinburg Campus:** Student Accessibility Services is located in 108 University Center and can be contacted by phone at (956) 665-7005 (Voice), (956) 665-3840 (Fax), or via email at accessibility@utrgv.edu.

**MANDATORY COURSE EVALUATION PERIOD:**
Students are required to complete an ONLINE evaluation of this course, accessed through your UTRGV account (http://my.utrgv.edu); you will be contacted through email with further instructions. Online evaluations will be available Nov. 18 – Dec. 9, 2015. Students who complete their evaluations will have priority access to their grades.

**ATTENDANCE:**
Students are expected to attend all scheduled classes and may be dropped from the course for excessive absences. UTRGV's attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; for observance of religious holy days; or for military service. Students should contact the instructor in advance of the excused absence and arrange to make up missed work or examinations.

**SCHOLASTIC INTEGRITY:**
As members of a community dedicated to Honesty, Integrity and Respect, students are reminded that those who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University. Scholastic dishonesty includes but is not limited to: cheating, plagiarism, and collusion; submission for credit of any work or materials that are attributable in 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. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced (Board of Regents Rules and Regulations and UTRGV Academic Integrity Guidelines). All scholastic dishonesty incidents will be reported to the Dean of Students.

SEXUAL HARASSMENT, DISCRIMINATION, and VIOLENCE:
In accordance with UT System regulations, your instructor is a “responsible employee” for reporting purposes under Title IX regulations and so must report any instance, occurring during a student’s time in college, of sexual assault, stalking, dating violence, domestic violence, or sexual harassment about which she/he becomes aware during this course through writing, discussion, or personal disclosure. More information can be found at www.utrgv.edu/equity, including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect in an environment free from sexual misconduct and discrimination.

COURSE DROPS:
According to UTRGV policy, students may drop any class without penalty earning a grade of DR until the official drop date. Following that date, students must be assigned a letter grade and can no longer drop the class. Students considering dropping the class should be aware of the “3-peat rule” and the “6-drop” rule so they can recognize how dropped classes may affect their academic success. The 6-drop rule refers to Texas law that dictates that undergraduate students may not drop more than six courses during their undergraduate career. Courses dropped at other Texas public higher education institutions will count toward the six-course drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for the third time.