# CENG232 Logic Design - Syllabus (Spring 2024)

Instructor	Office	E-mail		
Murat Manguoğlu	A407	manguoglu@ceng.metu.edu.tr		
Mon 10:40-12:30 Wed 12:40-13:30 BMB1 (Section 1)				
Mon 13:40-15:30 Wed 15:40-16:30 BMB2 (Section 2)				

Web Page: ODTUClass

Teaching Assts. (TAs)	Office	E-mail
Burak Eren Dere	A208	burak@ceng.metu.edu.tr
Cihad Tekinbaş	A208	ctekinbas@ceng.metu.edu.tr
Saim Sunel	A410	saimsunel@ceng.metu.edu.tr

Weeks	Lectures	Recitations	Labs
Week - I Feb 19, 2024	Course Objectives Introduction to Digital Systems		Students will declare their free hours.
Week - II Feb 26, 2024	Boolean Algebra & Logic Gates	Recitation: Introduction to Lab Work, Lab Environment, Digital Circuits & Logisim	Students will declare their free hours.
Week - III Mar 4, 2024	Combinational Circuits and circuit optimization		Lab-I assignment Lab schedule will be finalized & announced.
Week - IV Mar 11, 2024	Combinational Circuit Analysis & Design	Recitation: Introduction to HDL & Tools	
Week - V Mar 18, 2024	Combinational Circuit Analysis & Design		Lab-I Free Session Lab-I Preliminary Work (due on Friday) Lab-II assignment
Week – VI Mar 25, 2024	Synchronous Sequential Circuits		Lab-I Session
Week – VII Apr 1, 2024	Synchronous Sequential Circuit Analysis & Design	Recitation: Introduction to Verilog & Verilog Tools	Lab-II Free Session Lab-II Preliminary Work (due on Friday)
Week – none Apr 8, 2024	mostly holiday break		
Week – VIII Apr 15, 2024	Synchronous Sequential Circuit Analysis & Design		Lab-II Session
Week – IX Apr 22, 2024	Registers and Counters	Midterm April 23rd 18:00 April 26th 18:00	Lab-III assignment
Week – X Apr 29, 2024	Memory and Programmable Logic	Recitation (Tentative)	
Week – XI May 6, 2024	Algorithmic State Machines		Lab-III (due on Friday) Lab-IV assignment
Week – XII May 13, 2024	Algorithmic State Machines		
Week – XIII May 20, 2024	Design at the Register Transfer Level	Recitation (Tentative)	
Week – XIV May 27, 2024	Digital System Design		Lab-IV (due on Friday)
Weeks – XV-XVI June 1-14, 2024		Lab Final & Final TBA	

### **Grading:**

Midterm 25%

Lab Experiments 30% (%5 + %10 + 5% + %10)

Lab Final Exam 10% Class Final Exam 35%

- All announcements about the classes and the labs will be made via ODTUCLASS.
- Grading of the written exams will be done in gradescope (we will add you to gradescope after the add-drops)

Textbook: M.Mano and M. Ciletti, Digital Design, 4th ed., Pearson 2007.

#### Information for Students with Disabilities

Students who experience difficulties due to their disabilities and wish to obtain academic adjustments and/or auxiliary aids must contact ODTU Disability Support Office and/or course instructor and the advisor of students with disabilities at academic departments (for the list: <a href="http://engelsiz.metu.edu.tr/en/advisor-students-disabilities">http://engelsiz.metu.edu.tr/en/advisor-students-disabilities</a>) as soon as possible. For detailed information, please visit the website of Disability Support Office: <a href="https://engelsiz.metu.edu.tr/en/">https://engelsiz.metu.edu.tr/en/</a>

## Engelli Öğrenciler için Bilgilendirme

Derslerde engel durumu nedeniyle zorluk yaşayan ve akademik uyarlama hizmeti almak isteyen öğrencilerin Engelsiz ODTÜ Birimi ve/veya dersi veren öğretim üyesi ve akademik bölümlerindeki engelli öğrenci danışmanı (liste için: <a href="https://engelsiz.metu.edu.tr/tr/engelli-ogrenci-danismanlari">https://engelsiz.metu.edu.tr/tr/engelli-ogrenci-danismanlari</a>) ile en kısa sürede iletişime geçmeleri gerekmektedir. Detaylı bilgi almak için Engelsiz ODTÜ Biriminin web sayfasını ziyaret edebilirsiniz: <a href="http://engelsiz.metu.edu.tr/">http://engelsiz.metu.edu.tr/</a>

#### **Course Policies**

Make up for Exams and Assignments

Under no circumstances will a make-up exam be administered if a student misses any midterms. If a student misses a midterm exam due to an unanticipated and serious medical emergency or due to a death in the immediate family, then the missed midterm exam score will be imputed by using only the final exam score.

If a student misses the final exam due to an unanticipated and serious medical emergency or due to a death in the immediate family, then that student will be required to take a makeup final exam administered by the Department at the officially announced day and time.

Medical emergencies should be documented by an official report signed and stamped by a medical doctor. It is the student's responsibility to contact the instructor and provide the report timely.