

TENTATIVE COURSE SYLLABUS

EEF 211E: BASICS OF ELECTRICAL CIRCUITS (11974)

Fall 2022

Lecture Time: Monday, 08:30-11:30

Building & Classroom: EEB,

Instructor: Asst. Prof. Onur Kurt, **Email:** onurkurt@itu.edu.tr

Office: 3113, **Office Hours:** Monday, 13:30-14:30 (By appointment)

Teaching Assistant: Haluk Kırkgöz, Room: 1113, Email: kirkgozh@itu.edu.tr

Recommended Textbooks & Notes:

- *Fundamentals of Electrical Circuits* by C.K. Alexander, M.N.O. Sadiku
- *Linear and Nonlinear Circuits* by L.O. Chua, C.A. Desoer, E.S. Kuh
- *EDT Ders Notları* by Müştak E. Yalçın: <https://web.itu.edu.tr/yalcinmust/ehb211.html>

Grading:

Exam I:	25%
Exam II:	20%
Homework:	15% (4 HWs in total)
Final Exam:	40% (Departmental Cumulative Final Exam)

Lecture Notes: Slides will be uploaded to Ninova every week.

Homework: There will be four homework assignments throughout the semester. Homework assignments are due a week after they are posted (before class time), and each homework assignment is to be submitted to the course teaching assistant (TA) before its due date. No late homework assignment will be accepted.

VF Rule: Your total grade from the first two exams and the homework assignments must add up at least 40% of the class average of Exam I, Exam II and Homework Assignments combined. Otherwise, you will not be permitted to take the final examination. (Students who get an average of less than 10 out of 100 from the combinations of Exam I, Exam II and Homework Assignments during the semester are not included in the class average).

Course Schedule:

Week 1 (Sep 26): Fundamental Concepts

Week 2 (Oct 3): Basic Law–HW1

Week 3 (Oct 10): Graph Theory–HW1 due

Week 4 (Oct 17): Graph Theory–HW2

Week 5 (Oct 24): Methods of Analysis– HW2 due

Week 6 (Oct 31): Exam I

Week 7 (Nov 7): Semester Break–No Class

Week 8 (Nov 14): Circuit Theorems–HW3

Week 9 (Nov 21): Operational Amplifiers–HW3 due

Week 10 (Nov 28): Capacitors and Inductors

Week 11 (Dec 5): Exam II

Week 12 (Dec 12): State-Space Representation and Linearization–HW4

Week 13 (Dec 19): First-Order Circuits–HW4 due

Week 14 (Dec 26): Second-Order Circuits