

ISTANBUL TECHNICAL UNIVERSITY
Physics Engineering Department

FIZ411E – ELECTROMAGNETIC THEORY I

Spring 2021

CRN: 21003

Instructor: Assoc.Prof. A. Savaş ARAPOĞLU (arapoglu@itu.edu.tr)

Time: Tue, 08:30-10:20; Thu, 08:30-10:20; Fri, 10:30-11:20

Course Web Page: NINOVA...

COURSE CONTENT

1. Mathematical Preliminaries
2. Electrostatics
3. Boundary Value Problems in Electrostatics
4. Electric Fields in Matter
5. Magnetostatics
6. Magnetic Fields in Matter
7. Electrodynamics
8. Electromagnetic Waves

TEXTBOOK & OTHER SOURCES

- **Introduction to Electrodynamics** (4th Ed.), D. J. Griffiths, Pearson (2013),
- *Modern Electrodynamics*, A. Zangwill, CUP (2012),
- *Electricity and Magnetism* (3rd Ed.), E. M. Purcell and D. J. Morin, CUP (2013),
- *The Feynman Lectures (Volume II)*, R. Feynman, Addison-Wesley (1965).

GRADING

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|----------------|------------|--------------------------------------|
| Quizzes | %40 | 10-12 (almost every Friday) |
| HWs | %20 | 6 - 8 problem sets from the textbook |
| Final | %40 | At the end of the semester* |

* *To take the final at the end of the semester you have to get at least 20/60 from the quizzes+hw; otherwise, VF!*