

PHY 4324 E&M2 Schedule, Fall 2019. *Subject to change.*

Chapter 7 Electrodynamics

1. W, 08/21: Introduction.
2. F, 08/23: Start section 7.1, **Electromotive Force.**
3. M, 08/26: Finish 7.1. Start section 7.2, **Electromagnetic Induction.**
4. W, 08/28: : Finish section 7.2
5. F, 09/30: TBD
M, 09/02: *Labor Day*
6. W, 09/04: Class canceled
7. F, 09/06: Start 7.3, **Maxwell's Equations.** Problem set 1 due. (Guest lecturer)
8. M, 09/9: Finish Section 7.3, some problems.

Chapter 8 Conservation Laws

9. W, 09/11 Section 8.1, **Charge and Energy.**
10. F, 09/13: Section 8.2, **Stress/energy tensor.**
11. M, 09/16: Section 8.2, **Momentum.**

Chapter 9 Electromagnetic Waves

12. W, 09/18: Start section 9.1, **Waves in One Dimension.**
13. F, 09/20: Finish section 9.1. Start 9.2. Problem set 2 due.
14. M, 09/23: Section 9.2, **Electromagnetic Waves in Vacuum.**
15. W, 09/25: Review for exam 1.
Th 09/26 8:20-10:10 pm Exam 1 (covers Chapters 7 and 8). NEB202
16. F, 09/27: Exam solutions, other problems.
17. M, 09/30: Start 9.3, **Electromagnetic Waves in Matter.**
18. W, 10/02: Continue section 9.3.
19. F, 10/04: *Homecoming*
20. M, 10/07: Finish 9.3; start Section 9.4, **Absorption and Dispersion.**
21. W, 10/09: Continue section 9.4.
22. F, 10/11: Finish section 9.4.
23. M, 10/14: Some problems.
24. W, 10/16: Start Section 9.5, **Guided Waves.**

Chapter 10 Potentials and Fields

25. F, 10/17: Finish section 9.5.
26. M, 10/21: Start section 10.1, **The Potential Formulation.**
27. W, 10/23: Finish section 10.1.
28. F, 10/25: Start section 10.2, **Continuous Distributions.**
29. M, 10/29: Finish section 10.2.
30. W, 10/30: Some problems.
31. F, 11/01: Section 10.3, **Point Charges.**
32. M, 11/04: Review for Exam #2.
Tu, 11/05: 8:20-10:10 pm Exam 2 (Covers Chapters 9 and 10). NEB 202

Chapter 11 Radiation

33. W, 11/06: Start section 11.1, **Dipole Radiation.**
34. F, 11/08: Finish section 11.1.
M, 11/11: *Veterans' Day.*
35. W, 11/13: Start section 11.2, **Point Charges.**
36. F, 11/15: Finish section 11.2.
37. M, 11/18: Some problems.

Things not in the book.

- 38. W, 11/20: Coherence and interference
- 39. F, 11/22: Continue
- 40. M, 11/25: Laser beams and resonators
W, 11/27--F, 11/29 Thanksgiving *holiday*.
- 40. M, 12/02: Plasmas.
- 41. W, 12/04: Review for Final /Classes end.

T, 12/10: **Final Exam** 12:30–2:30
(Covers everything, stresses Chap. 11 and TNIB)