Timetable

Student Group

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Timetable

Semester week	Chapter	Topics	Exercises
1	1	Overview over all chapters 1.1 Electric Field and Field Lines 1.2 Electric charge and Coulomb force (reloaded)	Task 1.1.5, 1.2.1, 1.1.3
2	1	1.3 Work and Potential 1.4 Conductors in the Electrostatic Field 1.5 The Electric Displacement Field and Gauss's law of electrostatics 1.6 Non-Conductors in electrostatic Field	Task 1.4.5, 1.4.3, 1.4.1 “capacitor lab” in wikipage Falstad Capacitor Simu
3	1 + 2	1.7 Capacitors 1.8 Circuits with Capacitors 1.9 Configurations of multiple Dielectrics 2.1 Current Strength and Flux Field	Task 1.5.1, 1.5.2, 1.5.3 “capacitor lab” in wikipage (Series Capacitor, Dielectrics) Task 2.1.2 simu Wire with current --> what happens, when there is a bottleneck?
4	2+3	2.2 Gauss's Law for Current Density 3.1 Magnetic Phenomena 3.2 Magnetic Field Strength (until Magnetic Voltage)	Task 2.1.3, 2.2.2 Task 3.2.1, Aufg. 1.2-12, 1.2-13 (Übungsaufg. ILIAS) Task 3.2.2, 3.2.3
5	3	3.3 Magnetic Flux Density and Lorentz Law	Exam task 11 (Klausur WS19 ILIAS) Task 3.3.2
6	3 + 4	3.4 Matter in the Magnetic Field 4.1 Recap of magnetic Field 4.2 Lenz Law	Task 4.1.1, 4.1.2, “Electromagnetic Lab” in wikipage
7	4 + 5	4.3 Motional Induction 4.4 Self-Induction 4.5 Inductance 5.1 Linear magnetic Circuits	Task 4.3.1, 4.3.2, 4.3.3 simulation of inductive kickback Task 4.1.4, 4.1.5, 4.1.6 look into Exam SS21 (Aufg. 6, 7, 8)
8	5	5.2 (not included) 5.3 Mutual Induction and Coupling 5.4 Magnetic Energy	Task 5.3.1, 5.1.1, 5.1.2, 5.1.9,
9	5 + 6	6.1 Basic Circuits (with Inductances) 6.2 Charging and Discharging 6.3 Resonance Phenomena	Task 5.1.3, 5.1.4, 5.1.5, 5.1.6, 5.1.7 Example Crystal Oscillator (simu in wikipage)
10	6 + 7	6.4 Applications of Inductors 6.5 Examples 7.1 Power in AC	Look into capacitor datasheet -> Impedance over frq Task 6.3.1
11	7	7.1 Power in AC	Task 7.1.1
12	7	7.2 Polyphase Networks	
13	7	7.2 Polyphase Networks	
14	-	exam preparation	Task 1.9.2