

**BMC curriculum**  
**2025/26-es tanév tavaszi félév**

Week	Date	Lecture	Chapter	Topic	Lecturer	Seminar teacher	Seminar topic
1	Feb. 9. 14:00 (Mon, LC 0.14)	1-2	15	Properties of electric charges. Insulators and conductors. Coulomb's law. Electric field. Electric potential.	PF	VZ	15
	Feb. 10. 16:00 (Tue, IVDI)	3-4			HP	DBA	
2	Feb. 16. 14:00 (Mon, LC 0.14)	5-6	16	Electrical energy and capacitance. The parallel plate capacitor. Combinations of capacitors.	SzGT	BZs	15/16
	Feb. 17. 16:00 (Tue, IVDI)	7-8			BZs	DBA	
3	Feb. 23. 14:00 (Mon, LC 0.14)	9-10	17	Electric current. Current and voltage measurements in circuits. Resistance and Ohm's law.	BZs	ZF	16/17
	Feb. 24. 16:00 (Tue, IVDI)	11-12			ZF	DBA	
	<b>5th SCT material covered up to the 2nd week seminars</b>						
4	Mar. 2. 14:00 (Mon, LC 0.14)	13-14	18	Direct current circuits. Resistors in parallel and series. Kirchhoff's rules and complex DC circuits.	KT	KT	17/18
	Mar. 3. 16:00 (Tue, IVDI)	15-16			KT	HP	
5	Mar. 9. 14:00 (Mon, LC 0.14)	17-18	19	Magnetism. Magnetic field. Earth's magnetic field. Magnetic force on current carrying conductors.	VZ	DBA	18
	Mar. 10. 16:00 (Tue, IVDI)	19-20			VZ	BZs	
6	Mar. 16. 14:00 (Mon, LC 0.14)	21-22	20	Induced emf and magnetic flux. Faraday's law of induction. Motional emf. Lenz's law. Generalization of Faraday's law.	VZ	ZF	19
	Mar. 17. 16:00 (Tue, IVDI)	23-24			HP	HP	
	<b>6th SCT Material discussed in week 3-5 seminars</b>						
7	Mar. 23. 14:00 (Mon, LC 0.14)	25-26	21	Alternating current. Resistors, capacitors and inductors in AC circuits. The transformer. Power in AC circuits.	HP	SzGT	20
	Mar. 24. 16:00 (Tue, IVDI)	27-28			PGy	PF	
8	Mar. 30. 14:00 (Mon, LC 0.14)	29-30	22	The nature of light. Reflection, refraction and dispersion. Prisms. The rainbow. Huygen's principle.	PGy	VZ	21
	Mar. 31. 16:00 (Tue, IVDI)	31-32			PGy	KT	
9	Apr. 6. 14:00 (Mon, LC 0.14)	33-34	23	Lenses and mirrors. Flat mirrors. Images formed by spherical mirrors. Thin lenses. Images formed by thin lenses.	DBA	HP	22
	Apr. 7. 16:00 (Tue, IVDI)	35-36			DBA	ZF	
	Apr. 13. 14:00 (Mon, LC 0.14)	37-38	24		Wave optics. Conditions for interference, polarization of light. Diffraction. The camera, the microscope.	ML	
Apr. 14. 16:00 (Tue, IVDI)	39-40	25	ML	SzGT			
<b>7th SCT Material discussed in week 6-9 seminars</b>							
11	Apr. 20. 14:00 (Mon, LC 0.14)	41-42	27	Quantum physics. Blackbody radiation. Photoelectric effect. Particle theory of light. The photoelectric effect.	SzJ	VZ	24/25
	Apr. 21. 16:00 (Tue, IVDI)	43-44			SzJ	PF	
12	Apr. 27. 14:00 (Mon, LC 0.14)	45-46	28	Atomic physics. Early model of the atom. Quantum mechanics and the hydrogen atom. The Bohr model.	SzJ	SZGT	27/28
	Apr. 28. 16:00 (Tue, IVDI)	47-48			SzGT	PF	
13	May 4. 13:00 (Mon, LC 0.14)	49-50	29	Some properties of the nuclei. Binding energy. Radioactivity, the decay processes. Medical applications of radioactivity.	VZ	HP	29
	May 5. 14:00 (Tue, IVDI)	51-52	30		PF	KT	
	May 11. 14:00 (Mon, LC 0.14)	53-54			PF	PF	
14	May 12. 16:00 (Tue, IVDI)	55-56		Preparation for the final exam.	PF	SZGT	
	<b>8th SCT Material discussed in week 10-13 seminars</b>						