

**TEME PENTRU LUCRĂRILE DE DISERTAȚIE, CICLUL DE STUDII UNIVERSITARE DE MASTERAT,
 DOMENIUL FIZICĂ, SPECIALIZAREA APPLIED PHYSICS/FIZICĂ APLICATĂ, PROMOȚIA 2021
 DURATA STUDIILOR 2 ANI**

Nr. crt.	Titlul temei	Cadru didactic îndrumător
1	Electromagnetic field in material media	Prof. dr. Radu Dan CONSTANTINESCU
2	Transport phenomena and the neuronal flux	
3	Critical phenomena in nature	
4	Laws of the thermoelectric phenomena	
5	Charged relativistic particles in electromagnetic fields	
6	Nonlinear phenomena in electromagnetic fields	
7	Nanomechanical behavior of soft materials investigated by atomic force microscopy	Conf. dr. Gabriela Eugenia IACOBESCU
8	Magnetorheological elastomers: topographies and magnetic properties	
9	Noncontact atomic force microscopy: advantages and limitations	
10	Elastic continuum theory of liquid crystals	
11	Quantum Hall Effect	Conf. dr. Mariana OSIAC
12	Bioelectrical signal processing	
13	Spectrophotometry of transparent materials	
14	Dopants influence on tungsten oxide	
15	Raman spectroscopy on oxide materials	
16	LIBS applications in ecology	
17	Contrast substances used in medical imaging	
18	Liquid spectrophotometry	
19	Notions of nonlinear optics of liquid crystals	Lect. dr. Ion PALARIE
20	Light propagation in tissues	
21	Photoablative effects in tissues	
22	Highlighting the interaction between bovine serum albumin and Congo Red dye by UV-VIS absorption spectrophotometry and laser-induced fluorescence	

Temele de disertație au fost avizate în Ședința Consiliului Facultății de Științe din data de 23.10.2020

**TEME PENTRU LUCRĂRILE DE DISERTAȚIE, CICLUL DE STUDII UNIVERSITARE DE MASTERAT,
 DOMENIUL FIZICĂ, SPECIALIZAREA APPLIED PHYSICS/FIZICĂ APLICATĂ, PROMOȚIA 2021
 DURATA STUDIILOR 2 ANI**

23	Determination of the optical birefringence of a new nematic liquid crystal	
24	Dependence on pumping power and cell thickness of the anchoring breaking time in dye-doped nematic liquid crystals	
25	Turbulence and Chaos	Lect. dr. Iulian PETRISOR
26	A Convection-Diffusion Model	
27	Stability Aspects of Turbulence	
28	Computational Turbulence	
29	Thunderstorm fundamentals and hazards	Lect. dr. Nicolae Ion POMETESCU
30	Cardiovascular models and numerical simulation	
31	Atmospherical Optics	
32	Low frequency modes in non-homogeneous plasmas	
33	Modeling the flow of viscous fluid	
34	Particle guide center's movement in toroidally confined plasma	Lect. dr. Silviu-Constantin SĂRARU
35	Many-body model systems. The Jellium model	
37	Many-body model systems. The Hubbard model	
38	Programming with Python. Multiplexer application	
39	Hamiltonian approach of interacting fluid	
40	How to understand a CT phantom using a toy?	Lect. dr. Mihaela Tinca Udriștioiu
41	From the didactic experiment to understanding the principles and procedures of Computedtomographyangiography	
42	Comparative study between helical and direct radiotherapy techniques, with the TomoTherapy HD accelerator	
43	Bone scintigraphy	

Temele de disertație au fost avizate în Ședința Consiliului Facultății de Științe din data de **23.10.2020**