

ALEXANDRU IOAN CUZA UNIVERSITY FROM IAȘI
 FACULTY OF PHYSICS
 DOCTORAL SCHOOL
 DOCTORAL DOMAIN: **Physics**
 Title obtained: **Doctor in Physics**
 Period of study: **3 years**
 Mode of study : **ON CAMPUS**
 Year of study: **I**
 Semester:**I**

STUDY PROGRAM
ADVANCED PROGRAM OF UNIVERSITY EDUCATION
 Academic year **2023/2024**

| Nr. crt. | Compulsory courses | Total hours of courses | Examination form | Number of credits |
|----------|--|------------------------|------------------|-------------------|
| 1 | Ethics and academic integrity | 8 | Exam | 4 |
| 2 | Scientific research methodology and statistical data processing | 4 | Exam | 2 |
| | Optional courses | | Exam | |
| 1 | Plasma processes for experimental astrophysics and self-organization | 12 | Exam | 4 |
| 2 | Special chapters of theoretical physics | 12 | Exam | 4 |
| 3 | Investigation techniques for the study of molecular structures | 12 | Exam | 4 |
| 4 | Advanced materials for functional applications | 12 | Exam | 4 |
| 5 | Electrical properties of the materials | 12 | Exam | 4 |
| 6 | Applications of plasma and laser radiation in medicine and environment science | 12 | Exam | 4 |
| 7 | Fundamentals of mathematical physics | 24 | Exam | 8 |
| 8 | Physics of materials (dielectrics, magnetic materials) | 24 | Exam | 8 |
| 9 | Virtual Instrumentation | 24 | Exam | 8 |
| 10 | Modeling of physical processes | 24 | Exam | 8 |
| 11 | Physics of nonlinear phenomena | 24 | Exam | 8 |
| 12 | Transfer phenomena | 24 | Exam | 8 |
| 13 | Design of computer algorithms | 24 | Exam | 8 |
| 14 | Composite materials: design, physico-chemical properties and applications | 24 | Exam | 8 |
| 15 | Advanced Modeling Methods | 24 | Exam | 8 |

HEAD OF INSTITUTION,
 Prof. univ. dr. Tudorel TOADER

DEAN,
 Prof. univ. dr. habil. Cristian ENĂCHESCU

DIRECTOR OF DOCTORAL SCHOOL,
 Prof. univ. dr. Diana MARDARE