

**DOTTORATO IN MATEMATICA, FISICA E APPLICAZIONI PER L'INGEGNERIA**  
**Attività didattica formativa per il XXXV ciclo (a.a. 2019/20)**

**Elenco dei corsi di carattere interdisciplinare:**

- Introduction to modern computing infrastructures (docente M. Iacono - UniCampania) 4 CFU
- Il brevetto come attività di ricerca inventiva (docente S. Capece) 4 CFU

**Elenco dei corsi specialistici:**

- Introduction to Partial Differential Equations and Calculus of Variations (docenti G. Pisante, G. Di Blasio- UniCampania) 4 CFU
- Cohomological methods in group theory (docente A. Russo - UniCampania) 4 CFU
- Physics for Space Application (docente M. De Cesare - CIRA) 4 CFU
- Research in Mathematics Education (docente U. Dello Iacono - UniCampania) 4 CFU
- Numerical Methods for Data Analysis in Optical Spectroscopy (docenti M. Lepore, I. Delfino, C. Camerlingo - UniCampania) 4 CFU
- Biophotonics for clinics and environment (docente M. Lepore - UniCampania) 4 CFU
- Stability analysis of open-channel flows with Newtonian and non-Newtonian fluids (docente M. Minale – UniCampania) 4 CFU
- Environmental and Industrial applications (docente M. Iervolino - UniCampania) 4 CFU
- 3D printing by electro-hydrodynamics platform (docenti P. Ferraro, S. Grilli, L. Miccio, M. Paturzo - ISASI) 4 CFU
- Label free phase contrast microscopy: principles and applications (docenti P. Ferraro, S. Grilli, L. Miccio, M. Paturzo - ISASI) 4 CFU
- Model theory of valued fields (docenti P. D'Aquino, L. Gregory - UniCampania) 4 CFU
- Topics in Model Theory (docente P. D'Aquino - UniCampania) 4 CFU
- Laser spectroscopy (docenti L. Gianfrani, A. Castrillo, L. Moretti - UniCampania) 4 CFU
- Principles of non Newtonian-Fluid Mechanics (docente M. Minale - UniCampania) 4 CFU
- Mathematical models for empirical world. Statistical Mechanics and the kinetic theory of gases (docente B. Carbonaro - UniCampania) 4 CFU
- Isotope Physics (docente A. D'Onofrio - UniCampania) 4 CFU
- Analytical aspects of non-Newtonian fluids (docente F. Crispo - UniCampania) 4 CFU
- Incompressible Fluid Mechanics (docente G. Riccardi - UniCampania) 4 CFU
- Computational mechanics and finite elements formulation and application (docente V. Minutolo - UniCampania) 4 CFU
- Mathematical theory of elasticity and plasticity (docente V. Minutolo - UniCampania) 4 CFU
- Solid and structure mechanics (docente V. Minutolo - UniCampania) 4 CFU
- Fundamentals of Python for Advanced Data Analysis (docente F. Marulli - UniCampania) 4 CFU
- Experimental Nuclear Astrophysics (docente L. Gialanella - UniCampania) 4 CFU

- Biophysical mechanisms and therapeutic implications of human exposure to ionising radiation (docente L. Manti - Federico II) 4 CFU
- Introduction to statistical methods for multidimensional data analysis (docente E. Romano - UniCampania) 4 CFU
- Advanced Material Engineering for Photovoltaics and Energy Storage (docente G. Landi – Università di Salerno) 4 CFU
- Experimental astro-particle physics with neutrinos (docente P. Migliozzi – INFN) 4 CFU
- The glassy state (docente A. D'Amore – UniCampania) 4 CFU
- Mechanics of heterogeneous materials (docente A. D'Amore – UniCampania) 4 CFU