

Corso di Laurea Magistrale in Physics — Università di Bologna

Curriculum Applied Physics

Suggested Study Paths

Path A and B are only suggested study paths, students are free to completely personalize their curriculum within the constraints of the course-group choices.

Research opportunities: DIFA website — <https://physics-astronomy.unibo.it/en/research/research-areas/applied-physics-and-complex-systems>

	Path A Methods and Modelling for Applied Physics	Path B Biomedical Applications of Physics
Core courses (Group 1) 6 among 10	Physics of Complex Systems, Complex Networks, Pattern Recognition, Dynamical Systems and Ergodic Theory, Statistical Data Analysis for Applied Physics, Software and Computing for Applied Physics	Health Physics, Physical Methods of Biology, Physics in Neuroscience and Medicine, Physics of Medical Imaging, Statistical Data Analysis for Applied Physics, Software and Computing for Applied Physics
Group 2 1 among 3	Materials Modelling and Design	Semiconductor Materials and Nanostructures or X-Ray and Electrons for Nanoscale Analysis of Matter
Group 4 2 among 5	Models and Numerical Methods in Physics, Accelerators and Plasma Physics	Applications of Nuclear Physics, Electronics for Applied Physics or Image Processing
Group 3 1 among 2	Statistical Mechanics Group or Didattica della Fisica (in Italian)	Didattica della Fisica (in Italian)
2 free choices	Any course available from the Master in Physics — previously unselected Group courses, or (with approval) courses from other Degree Programmes	
Mandatory	Transversal Skills for Physics-Related Professions (2nd y)	
	Advanced Professional and Research Skills in Physical Sciences (2nd y)	
	Complemento di Competenze Trasversali Avanzate per la Fisica (2nd y)	
	Master Thesis (24+12 CFU)	