



Curriculum <i>Bio-physics and Applied Physics</i>							
Year	Name of the course	Hours		SSD	Term	Notes	✓
First year	<b>B - Distinctive courses (Corsi caratterizzanti)</b>		<b>36</b>				
	Mandatory courses						
	There are no mandatory courses for this curriculum						
	Choose two courses among						
	Laboratory of nanostructures	60	6	FIS/01	I	II	<input type="checkbox"/>
	Advanced spectroscopic and imaging methods	48	6	FIS/01		II	<input checked="" type="checkbox"/>
	Magnetism, spintronics and quantum technologies	48	6	FIS/01	I		<input type="checkbox"/>
	Choose four courses among						
	Fundamentals of condensed matter physics	48	6	FIS/03	I		<input type="checkbox"/>
	Physics of semiconductors	48	6	FIS/03		II	<input type="checkbox"/>
	Nanoscience and quantum materials	48	6	FIS/03		II	<input type="checkbox"/>
	Laboratory of quantum simulation of materials	60	6	FIS/03	I	II	<input type="checkbox"/>
	Laboratory of machine learning and advanced computing for physics	60	6	FIS/03	I	II	<input type="checkbox"/>
	<b>C - Related courses (Corsi affini)</b>		<b>24</b>				
	Choose four courses among						
	Nano-mechanics	48	6	FIS/01	I		<input type="checkbox"/>
	Laboratory of electron microscopy and holography	48	6	FIS/01		II	<input type="checkbox"/>
	Synchrotron radiation: basics and applications	48	6	FIS/01	I		<input type="checkbox"/>
Biological physics with laboratory	60	6	FIS/07	I	II	<input type="checkbox"/>	
Chemical physics of biomolecules	36	6	FIS/07	I		<input type="checkbox"/>	
Medical physics	36	6	FIS/07		II	<input type="checkbox"/>	
Physics education: theoretical and experimental methods	48	6	FIS/08		II	<input type="checkbox"/>	
Numerical algorithms for signal and image processing	36	6	MAT/08		II	M.S. in Mathematics - IT <input type="checkbox"/>	
Elementary particles	48	6	FIS/04	I		<input type="checkbox"/>	
Second year	<b>B - Distinctive courses (Corsi caratterizzanti)</b>		<b>6</b>				
	Choose one course among						
	Advanced quantum mechanics	48	6	FIS/02	I		<input type="checkbox"/>
	Relativity	48	6	FIS/02	I		<input type="checkbox"/>
	<b>D - Free choice courses (Corsi a scelta libera)</b>		<b>12</b>				
	Choose At least 12 ECTSs among all of the above courses, or any other course offered at UNIMORE						
	<b>E - Thesis project and dissertation</b>		<b>36</b>				
	<b>F - Professional preparation (Corsi professionalizzanti)</b>		<b>6</b>				
	Choose 6 ECTSs among						
	Good Practices in Research	3			I		<input type="checkbox"/>
Physics and society	3			I		<input type="checkbox"/>	
Science-based innovation	6	Attendance of CBI/SUGAR Unimore projects (see <a href="https://clab.unimore.it/">https://clab.unimore.it/</a> )				<input type="checkbox"/>	
High-Performance-Computing in sciences	3	Attendance of CINECA HPC courses (see <a href="https://eventi.cineca.it/en/hpc/catalogue">https://eventi.cineca.it/en/hpc/catalogue</a> )				<input type="checkbox"/>	