

## A single year

### Compulsory courses

PHYS0240-2	<i>Biophysics</i> - Maryse HOEBEKE	30	15	-	<b>5</b>
PHYS0930-1	<i>Atomic Physics</i> - Thierry BASTIN	30	15	-	<b>5</b>
PHYS0931-1	<i>Data processing</i> - Pierre MAGAIN	15	30	-	<b>5</b>
SMEM0027-1	<i>Thesis</i> - COLLÉGIALITÉ	-	-	-	<b>15</b>

### Optional courses

Choose, in agreement with the Physics Board of Studies, courses totalling 30 credits, amongst :

PHYS0932-1	<i>Cold atoms and atomic clocks</i> - Thierry BASTIN	20	-	-	<b>3</b>
PHYS2027-1	<i>Ultracold atoms and Bose-Einstein condensates</i> - Peter SCHLAGHECK	30	-	-	<b>3</b>
PHYS0204-2	<i>Quantum Physics II</i> - Jean-Pierre GASPARD	15	5	-	<b>3</b>
AESS0241-1	<i>Introduction to physic didactics</i> - Maryse HOEBEKE	20	-	-	<b>3</b>
SPAT0012-2	<i>General relativity I, Partim : Introduction</i> - Yves DE ROP	20	-	-	<b>3</b>
PHYS0933-1	<i>Magnetism and nanomagnetism (English)</i> - Raphaël HERMANN	15	10	-	<b>3</b>
PHYS0934-1	<i>Coherent Optics and laser applications</i> - Serge HABRAKEN	15	20	-	<b>3</b>
PHYS0124-1	<i>Instrumental Optics I</i> - Serge HABRAKEN	20	15	-	<b>3</b>
PHYS0969-1	<i>Introduction to biophotonics</i> - Laurent DREESEN	20	10	-	<b>3</b>
PHYS0937-1	<i>Physical functional materials (English)</i> - Philippe GHOSEZ	20	10	-	<b>3</b>
PHYS0938-1	<i>Physics and cultural heritage</i> - David STRIVAY	15	5	-	<b>3</b>
PHYS0939-1	<i>Physics of non-linearities, chaos and fractals</i> - Nicolas VANDEWALLE	15	25	-	<b>3</b>
PHYS2012-2	<i>Relativistic quantum mechanics and relativistic statistics</i> - Joseph CUGNON	15	5	-	<b>3</b>
PHYS0250-2	<i>Experimental statistical physics</i> - Stéphane DORBOLO	10	20	-	<b>3</b>
PHYS0941-2	<i>Nuclei and particles</i> - Jean-René CUDELL	30	-	-	<b>3</b>
PHYS0942-1	<i>Ionising radiations and imaging</i> - Alain SERET	15	5	-	<b>3</b>
PHYS0943-1	<i>Electronic paramagnetic resonance</i> - Maryse HOEBEKE	15	5	-	<b>3</b>
PHYS0944-1	<i>Vacuum techniques</i> - David STRIVAY	10	10	-	<b>3</b>
CHIM0202-2	<i>Physical chemistry</i> - Christian DAMBLON, Bernard LEYH	30	-	-	<b>3</b>
SPAT0012-3	<i>General relativity I, Partim : Compléments</i> - Yves DE ROP	40	-	-	<b>3</b>
SPAT0047-1	<i>Quantum field theory</i> - Jean-René CUDELL	30	-	-	<b>3</b>
PHYS0945-1	<i>Complex fluids</i> - Nicolas VANDEWALLE	20	10	-	<b>3</b>
PHYS0235-1	<i>Quantum optics</i> - Thierry BASTIN	30	-	-	<b>3</b>
PHYS0947-1	<i>Large Scale Facilities in Condensed Matter Physics (en)</i> - Jean-Pierre GASPARD - [2d Vis.]	10	10	[+]	<b>3</b>
PHYS0948-1	<i>Microgravity</i> - Hervé CAPS, Nicolas VANDEWALLE - [3d FW]	10	20	[+]	<b>6</b>
PHYS0949-1	<i>Atomic structures modeling</i> - Pascal QUINET	10	10	-	<b>3</b>
PHYS0950-1	<i>Nanoparticles and low-dimensional systems (English)</i> - Jean-Yves RATY	20	10	-	<b>3</b>
PHYS0125-3	<i>Instrumental Optics II</i> - Serge HABRAKEN	25	30	-	<b>6</b>
PHYS3012-1	<i>Electronic and vibrational spectroscopies</i> - Matthieu VERSTRAETE	30	-	-	<b>3</b>
[...]	Up to 9 credits can also be chosen in another study path or in another institution (if not chosen in the first year)				