

**Block view of the study programme**

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**Block 1**
**General courses**

SMEM0040-1	<i>Research master thesis</i> - COLLÉGIALITÉ	TA	-	-	-	<b>24</b>
PHYS3132-1	<i>Intellectual property and open innovation in materials science</i> (english language) - Elodie NAVEAU	Q1	10	5	-	<b>2</b>
STRA0048-1	<i>Innovation project in advanced materials science</i> (english language) - COLLÉGIALITÉ	Q1	5	30	-	<b>4</b>

**Focus courses**
**Single focus**
**Research Focus**

CHIM9227-1	<i>Quantum Chemistry</i> (english language) - Françoise REMACLE	Q1	30	10	-	<b>4</b>
PHYS3003-1	<i>Physics of functional oxides</i> (english language) - Philippe GHOSEZ	Q1	20	10	-	<b>4</b>
CHIM9228-1	<i>Macromolecular Chemistry</i> (english language) - Christine JÉRÔME	Q1	20	15	-	<b>4</b>
CHIM9256-1	<i>Advanced solid state chemistry</i> (english language) - Bénédicte VERTRUYEN	Q1	30	-	-	<b>4</b>
CHIM9230-1	<i>Nanomaterials: synthesis, properties and applications</i> (english language) - AnneSophie DUWEZ, Christine JÉRÔME, Damien SLUYSMANS	Q1	25	-	-	<b>4</b>

**Specialised courses, including tutorial and practice**

Courses totaling 10 credits have to be chosen among :

PHYS3014-1	<i>Physics and chemistry of materials : complements</i> (english language) - COLLÉGIALITÉ	Q1	20	-	-	<b>2</b>
PHYS3004-1	<i>Physics of nanomaterials</i> (english language) - JeanYves RATY	Q1	20	10	-	<b>4</b>
PHYS0980-1	<i>Spectroscopy of materials</i> (english language) - Matthieu VERSTRAETE	Q1	20	10	-	<b>4</b>
CHIM0725-2	<i>Modelling molecules and extended systems, Partim A</i> (english language) - Bernard LEYH, Françoise REMACLE	Q1	30	-	-	<b>4</b>
CHIM9233-1	<i>Molecular logic</i> (english language) - Françoise REMACLE	Q2	25	-	-	<b>2</b>
CHIM9234-1	<i>Polymers and environment, Part A</i> (english language) - Philippe LECOMTE	Q1	15	-	-	<b>2</b>
CHIM9257-1	<i>Introduction to solid state NMR, Part A</i> (english language) - Christian DAMBLON, Philippe LECOMTE	Q1	15	-	-	<b>2</b>
CHIM9266-1	<i>Characterization of nanostructures by scanning probe techniques</i> (english language) - AnneSophie DUWEZ, Damien SLUYSMANS	Q1	15	-	-	<b>2</b>
PHYS0981-1	<i>Quantum modeling of materials properties</i> (english language) - Philippe GHOSEZ, Matthieu VERSTRAETE	Q1	20	10	-	<b>4</b>
PHYS0982-1	<i>Physics of semiconductors</i> (english language) - Ngoc Duy NGUYEN	Q1	15	-	-	<b>2</b>
PHYS3023-1	<i>Physics of magnetic materials</i> (english language) - Eric BOUSQUET	Q2	20	10	-	<b>4</b>
PHYS3037-1	<i>Nanofabrication : principles and techniques</i> (english language) - Ngoc Duy NGUYEN, Alejandro SILHANEK	Q2	25	15	-	<b>4</b>
PHYS0987-1	<i>Physics of materials for energy</i> (english language) - Ngoc Duy NGUYEN, JeanYves RATY	Q1	30	-	-	<b>4</b>
PHYS0988-1	<i>Intrinsic and induced topological properties of matter</i> (english language) - Bertrand DUPÉ	Q2	20	10	-	<b>4</b>