

**Cycle view of the study programme**

|   |   | B1 | Or | Th | Pr | Au  | Cr |
|---|---|----|----|----|----|-----|----|
| <b>Focus courses (B1 : 20Cr)</b>  |   |    |    |    |    |     |    |
| CHIM9227-1  | <i>Quantum Chemistry</i> (english language) - Françoise REMACLE   | B1 | Q1 | 30 | 10 | -   | 4  |
| PHYS3003-1  | <i>Physics of functional oxides</i> (english language) - Philippe GHOSEZ  | B1 | Q1 | 20 | 10 | -   | 4  |
| CHIM9228-1  | <i>Macromolecular Chemistry</i> (english language) - Christine JÉRÔME   | B1 | Q1 | 20 | 15 | -   | 4  |
| CHIM9256-1  | <i>Advanced solid state chemistry</i> (english language) -<br>Bénédicte VERTRUYEN   | B1 | Q1 | 30 | -  | -   | 4  |
| CHIM9230-1  | <i>Nanomaterials: synthesis, properties and applications</i> (english language) - AnneSophie DUWEZ, Christine JÉRÔME,<br>Damien SLUYSMANS | B1 | Q1 | 25 | -  | -   | 4  |
| <b>Specialised courses, including tutorial and practice (B1 : 10Cr)</b> |   |    |    |    |    |     |    |
| Courses totaling 10 credits have to be chosen among : (B1 : 10Cr)       |   |    |    |    |    |     |    |
| PHYS3014-1  | <i>Physics and chemistry of materials: complements</i> (english language) -<br>- COLLÉGIALITÉ - [15h Proj.]                               | B1 | Q1 | 5  | -  | [+] | 2  |
| PHYS3004-1  | <i>Physics of nanomaterials</i> (english language) - JeanYves RATY  | B1 | Q2 | 20 | 10 | -   | 4  |
| CHIM0725-2  | <i>Modelling molecules and extended systems</i> (english language) -<br>Françoise REMACLE   | B1 | Q1 | 15 | -  | -   | 2  |
| CHIM9233-1  | <i>Molecular logic and quantum computing</i> (english language) -<br>Françoise REMACLE  | B1 | Q2 | 15 | -  | -   | 2  |
| CHIM9234-1  | <i>Polymers and environment, Part A</i> (english language) -<br>Philippe LECOMTE  | B1 | Q1 | 15 | -  | -   | 2  |
| CHIM9257-1  | <i>Introduction to solid state NMR, Part A</i> (english language) -<br>Christian DAMBLON, Philippe LECOMTE                                | B1 | Q1 | 15 | -  | -   | 2  |
| CHIM9266-1  | <i>Characterization of nanostructures by scanning probe techniques</i><br>(english language) - AnneSophie DUWEZ, Damien SLUYSMANS         | B1 | Q1 | 15 | -  | -   | 2  |
| PHYS0981-1  | <i>Quantum modelling of materials properties</i> (english language) -<br>Philippe GHOSEZ  | B1 | Q1 | 20 | 10 | -   | 4  |
| PHYS3023-1  | <i>Physics of magnetic materials</i> (english language) - Eric BOUSQUET   | B1 | Q2 | 20 | 10 | -   | 4  |
| PHYS3037-1  | <i>Nanofabrication : principles and techniques</i> (english language) -<br>Ngoc Duy NGUYEN, Alejandro SILHANEK                            | B1 | Q2 | 25 | 15 | -   | 4  |
| PHYS0987-1  | <i>Physics of materials for energy</i> (english language) -<br>Ngoc Duy NGUYEN - [15h Proj.]  | B1 | Q1 | 20 | -  | [+] | 4  |
| PHYS0988-1  | <i>Intrinsic and induced topological properties of matter</i> (english language) - Bertrand DUPÉ  | B1 | Q2 | 20 | 10 | -   | 4  |
| <b>General courses (B1 : 30Cr)</b>                                      |   |    |    |    |    |     |    |
| SMEM0040-1  | <i>Research master thesis</i> - COLLÉGIALITÉ  | B1 | TA | -  | -  | -   | 24 |
| PHYS3132-1  | <i>Intellectual property and open innovation in materials science</i> (english language) - Elodie NAVEAU                                  | B1 | Q1 | 10 | 5  | -   | 2  |
| STRA0048-1  | <i>Innovation project in advanced materials science</i> (english language) -<br>COLLÉGIALITÉ - [30h Proj.]                                | B1 | Q1 | 5  | -  | [+] | 4  |