

#### Cycle view of the study programme

|                                                                         |                                                                                                                   | Bl | Or | Th | Pr | Au  | Cr |
|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----|----|----|----|-----|----|
| <b>General courses (B1 : 30Cr)</b>                                      |                                                                                                                   |    |    |    |    |     |    |
| SMEM0040-1                                                              | Research master thesis - COLLÉGIALITÉ                                                                             | B1 | TA | -  | -  | -   | 24 |
| PHYS3132-1                                                              | Intellectual property and open innovation in materials science (english language) - Elodie NAVEAU                 | B1 | Q1 | 10 | 5  | -   | 2  |
| STRA0048-1                                                              | Innovation project in advanced materials science (english language) - COLLÉGIALITÉ - [30h Proj.]                  | B1 | Q1 | 5  | -  | [+] | 4  |
| <b>Focus courses (B1 : 20Cr)</b>                                        |                                                                                                                   |    |    |    |    |     |    |
| CHIM9227-1                                                              | Quantum Chemistry (english language) - Françoise REMACLE                                                          | B1 | Q1 | 30 | 10 | -   | 4  |
| PHYS3003-1                                                              | Physics of functional oxides (english language) - Philippe GHOSEZ                                                 | B1 | Q1 | 20 | 10 | -   | 4  |
| CHIM9228-1                                                              | Macromolecular Chemistry (english language) - Christine JÉRÔME                                                    | B1 | Q1 | 20 | 15 | -   | 4  |
| CHIM9256-1                                                              | Inorganic materials and chemistry (english language) - Nicolas SOMERS, Bénédicte VERTRUYEN - [15h Proj.]          | B1 | Q1 | 15 | -  | [+] | 4  |
| CHIM9230-1                                                              | Physical chemistry of nanostructures and single molecules (english language) - AnneSophie DUWEZ, 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                                                              | Physics and chemistry of materials: complements (english language) - COLLÉGIALITÉ - [15h Proj.]                   | B1 | Q1 | 5  | -  | [+] | 2  |
| PHYS3004-1                                                              | Physics of nanomaterials (english language) - N...                                                                | B1 | Q2 | 20 | 10 | -   | 4  |
| CHIM0725-2                                                              | Modelling molecules and extended systems (english language) - Françoise REMACLE                                   | B1 | Q2 | 15 | -  | -   | 2  |
| CHIM9233-1                                                              | Molecular logic and quantum computing (english language) - Françoise REMACLE                                      | B1 | Q2 | 15 | -  | -   | 2  |
| CHIM9234-1                                                              | Polymers and environment, Part A (english language) - Philippe LECOMTE                                            | B1 | Q1 | 15 | -  | -   | 2  |
| CHIM9257-1                                                              | Introduction to solid state NMR, Part A (english language) - Christian DAMBLON, Philippe LECOMTE                  | B1 | Q1 | 15 | -  | -   | 2  |
| CHIM0752-1                                                              | Single-molecule approaches in biology and chemistry (english language) - Damien SLUYSMANS                         | B1 | Q1 | 25 | -  | -   | 4  |
| PHYS0981-1                                                              | Quantum modelling of materials properties (english language) - Philippe GHOSEZ                                    | B1 | Q1 | 20 | 10 | -   | 4  |
| PHYS3023-1                                                              | Physics of magnetic materials (english language) - Eric BOUSQUET                                                  | B1 | Q2 | 20 | 10 | -   | 4  |
| PHYS3037-1                                                              | Nanofabrication : principles and techniques (english language) - Ngoc Duy NGUYEN, Alejandro SILHANEK              | B1 | Q2 | 25 | 20 | -   | 5  |
| PHYS0987-1                                                              | Physics of materials for energy (english language) - Ngoc Duy NGUYEN - [15h Proj.]                                | B1 | Q1 | 20 | -  | [+] | 4  |
| PHYS0988-1                                                              | Intrinsic and induced topological properties of matter (english language) - Bertrand DUPÉ                         | B1 | Q2 | 20 | 10 | -   | 4  |
| PHYS3140-1                                                              | Magnetism and superconductivity (english language) - Bertrand DUPÉ                                                | B1 | Q1 | 20 | 10 | -   | 4  |