# *Master AMIS : Advanced Materials for Innovation and Sustainability*

### General courses

| | | | | | | |
|---|---|---|---|---|---|---|
| SMEM0040-1 | *Research master thesis* - COLLEGIALITE, Ngoc Duy NGUYEN..... | TA | - | - | - | **24** |
| PHYS3132-1 | *Intellectual property and open innovation in materials science* (anglais) - Elodie NAVEAU ..... | Q1 | 10 | 5 | - | **2** |
| STRA0048-1 | *Innovation project in advanced materials science* (anglais) - COLLEGIALITE, Ngoc Duy NGUYEN ..... | Q1 | 5 | 30 | - | **4** |

### Specialised courses, including tutorial and practice

### Research focus

| | | | | | | |
|---|---|---|---|---|---|---|
| CHIM9227-1 | *Quantum chemistry* (anglais) - Françoise REMACLE ..... | Q1 | 30 | 10 | - | **4** |
| PHYS3003-1 | *Physics of functional oxides* (anglais) – Philippe GHOSEZ ..... | Q1 | 20 | 10 | - | **4** |
| CHIM9228-1 | *Macromolecular chemistry* (anglais) – Christine JÉRÔME..... | Q1 | 20 | 15 | - | **4** |
| CHIM9256-1 | *Advanced solid state chemistry* (anglais) - Bénédicte VERTRUYEN. | Q1 | 30 | - | - | **4** |
| CHIM9230-1 | *Nanomaterials : synthesis, properties and applications* (anglais) - Anne-Sophie DUWEZ, Christine JÉRÔME, Damien SLUYSMANS ..... | Q1 | 25 | - | - | **4** |

Courses totaling 10 credits have to be chosen among :

| | | | | | | |
|---|---|---|---|---|---|---|
| PHYS3014-1 | *Physics and chemistry of materials: complements* (anglais) – COLLEGIALITE, Ngoc Duy NGUYEN ..... | Q1 | 20 | - | - | **2** |
| PHYS3004-1 | *Physics of nanomaterials* (anglais) - Jean-Yves RATY ..... | Q1 | 20 | 10 | - | **4** |
| PHYS0980-1 | *Spectroscopy of materials* (anglais) – Matthieu VERSTRAETE..... | Q1 | 20 | 10 | - | **4** |
| CHIM0725-2 | *Modelling molecules and extended systems, Partim A* (anglais) - Bernard LEYH, Françoise REMACLE ..... | Q1 | 30 | - | - | **4** |
| CHIM9233-1 | *Molecular logic* (anglais) - Françoise REMACLE ..... | Q2 | 25 | - | - | **2** |
| CHIM9234-1 | *Polymers and environment, Partim A* (anglais) – Philippe LECOMTE ..... | Q1 | 15 | - | - | **2** |
| CHIM9257-1 | *Introduction to solid state NMR, Partim A* (anglais) - Christian DAMBLON, Philippe LECOMTE..... | Q1 | 15 | - | - | **2** |
| CHIM9266-1 | *Characterization of nanostructures by scanning probe techniques* (anglais) – Anne-Sophie DUWEZ ..... | Q1 | 15 | - | - | **2** |
| PHYS0981-1 | *Quantum modeling of materials properties* (anglais) – Matthieu VERSTRAETE, Philippe GHOSEZ ..... | Q1 | 20 | 10 | - | **4** |
| PHYS0982-1 | *Physics of semiconductors* (anglais) - Ngoc Duy NGUYEN ..... | Q1 | 15 | - | - | **2** |
| PHYS3023-1 | *Physics of magnetic materials* (anglais) - Eric BOUSQUET ..... | Q2 | 20 | 10 | - | **4** |
| PHYS3037-1 | *Nanofabrication : principles and techniques* (anglais) – Ngoc Duy NGUYEN, Alejandro SILHANEK..... | Q2 | 25 | 15 | - | **4** |
| PHYS0987-1 | *Physics of materials for energy* (anglais) - Ngoc Duy NGUYEN, Jean-Yves RATY ..... | Q1 | 30 | - | - | **4** |
| PHYS0988-1 | *Intrinsic and induced topological properties of matter* (anglais) – Bertrand DUPE ..... | Q2 | 20 | 10 | - | **4** |