

Bachelor 1 MPCE2i

The transition from high school to higher education

Physics and Chemistry



Eligibility

Non-selective sector

Ideal" student profile :

- Physics and Chemistry
- Mathematics (or at least Maths Complémentaires)

Back-to-school schedule :

- Placement tests in Maths, Physics and Chemistry
- Reminders/refresher courses/preparation for L1 courses
- Setting up support and tutorials (yes-or-no students + students)

who did not obtain an average score in the placement tests)



Time devoted to refresher courses does not allow students to catch up on everything A lot of personal work is required (Umtice, Unisciel)

Licence 1 MPCE2i

4 routes

- **Physics-Chemistry** (+ Franco-German course)
- **ENSIM** (integrated preparatory course)
Geipi Polytech competition
- **ESGT** (integrated preparatory course)
platforms)

- **Mathematics** (Mathematics and Applications)

~ **160 students**

Organization

Working with small groups

- Groups of 40 students
- No lecture hall
- Continuous control
- Teacher availability



Educational continuity with high school

- Programs adapted to Lycée curricula
- Semester 1 = mathematical tools, methodology...

Organization

Digital tools

- All downloadable courses, tutorials and corrections (Espace UMTICE)
- Student evaluation of teaching (EVAMAINE)



Help for success and guidance

- Support and tutoring
- Possibility of reorientation (IUT, Licence SV/ST...)

Timetable

The timetable is a grid with multiple columns and rows. Each cell contains text representing a course, such as 'TDA Licence 1', 'TDA Licence 2', 'TDA Licence 3', 'TDA Licence 4', 'TDA Licence 5', 'TDA Licence 6', 'TDA Licence 7', 'TDA Licence 8', 'TDA Licence 9', 'TDA Licence 10', 'TDA Licence 11', 'TDA Licence 12', 'TDA Licence 13', 'TDA Licence 14', 'TDA Licence 15', 'TDA Licence 16', 'TDA Licence 17', 'TDA Licence 18', 'TDA Licence 19', 'TDA Licence 20'. The colors of the cells vary, including shades of blue, green, yellow, orange, and red.

Course

Semester 1: courses common to all courses

- Mathematics
 - Mathematical Calculations
 - Maths 1: study of functions, integration, etc.
 - Maths 2: polynomials, diff. equations, etc.
- Physics
 - Physics 1: optics 1
 - Physics 2: mechanics 1
- Chemistry
 - Chemistry 1: Structure and properties of atoms
 - Chemistry 2: Chemical reactions
- Computer Science :
 - Algorithms and programming
- English
- Writing for communication (French)

Course

Semester 2: courses common to all courses

- Mathematics : Mathematics for physics 1
- Physics : Thermodynamics 1
Mechanics 2
Electronics 1
- Computer Science : Algorithms and programming 2
- English
- Personal Professional Project (PPP)
- Writing for communication (French)

courses specific to the physics-chemistry path

- Chemistry: Chemical equilibria in solution
Chemical bonds, stacking and molecular architecture
Organic chemistry 1

Course

Semester 3 (license 2):

- Physics : Electronics 2 Electromagnetism
Electrostatics, magnetostatics
Simulation of phenomena in the physical sciences
- Chemistry : Solid State Chemistry
Inorganic Chemistry 1
Organic Chemistry 2
- Mathematics : Mathematics for Physics 2
- English
- + Free teaching unit (2nde language, sport, art, culture...)

Course

Semester 4 (license 2):

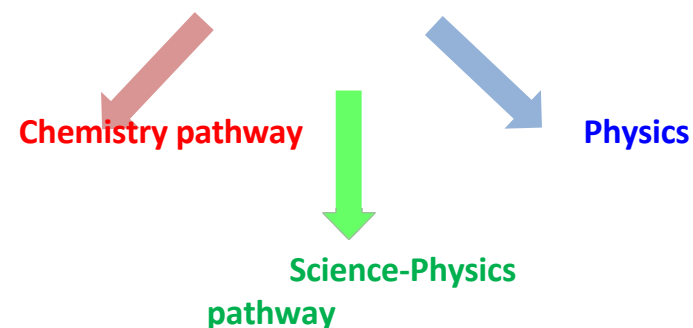
- Physics : Optics 2
Thermodynamics 2
- Chemistry : Inorganic Chemistry 2
Thermochemistry -
kinetics
- Certification in digital tools (PIX)
- English
- + Free teaching unit (2nde language, sport, art, culture...)

courses specific to physics or chemistry

- | | |
|-----------------------------|----------------------|
| - Chemistry | - Physics |
| -Organic Chemistry 2 | -Mechanics 2 |
| -Materials characterization | -Wave physics/modern |
| -Polymers & Biopolymers | -Fluid mechanics |

Course

Semesters 5 & 6: Licence 3



Information

Bachelor managers

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