

AND...

15 RESEARCH LABORATORIES



Engineering



The Master in Engineering Sciences offers ten teaching programs that cover the industry's needs in major fields of mechanics, electronics, robotics and health engineering, both at fundamental and applied level.

Internships, in the second semester of both years, ensure a balance between theoretical and experimental training and a high level of contact with the professional world.

The program degree is run in collaboration with research teams from the university, as well as several engineering schools and partner establishments. This base ensures the possibility of undertaking a PhD with one of the two doctoral schools associated to the program: SMAER or EDITE.

www.master.spi.upmc.fr

Admission Criteria

First year M1

Programs specialized in Mechanics are opened in 1st year to Bachelor in Mechanics or Physics.
Programs specialized in Electronics are opened to bachelors in Electronics, Physics or Computer Science, or equivalent.

Second year M2

The 2nd year, students from other establishments – universities or schools, French or foreign – may be admitted if they can justify to the admissions panel that meet the prerequisites.

Two specializations offer students an education program by apprenticeship and two others an international program.



ADDRESSES OF THE FOUR LEARNING DEPARTMENTS

Bachelors's degree in Computer Science

Tower 25
Hall 24/25, 2d floor

Bachelors's degree in Mechanics and EEA

Tower 55
Hall 55/65, 2d floor

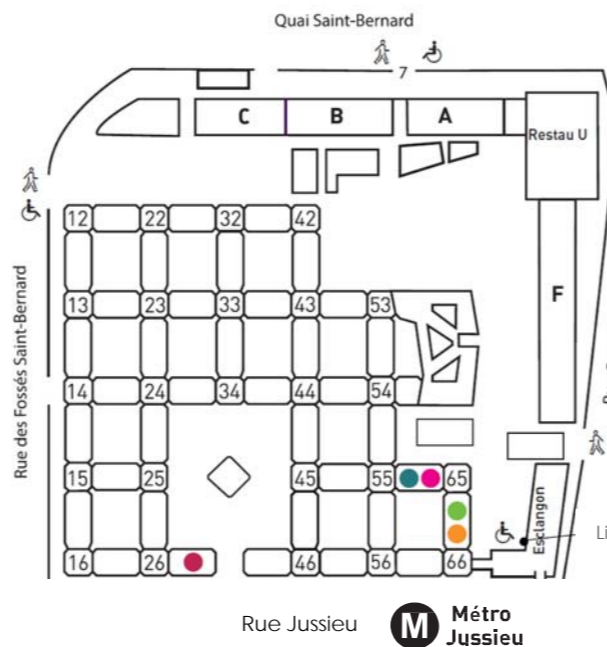
Master's degree in Computer Science

Tower 25, Hall 25-24

Master's degree in Engineering Science

Esclangon Building

Jussieu Campus



- LIP 6
Hall 26/00, 25/26, 24/25
- ISIR
Pyramid - Tower 55
- D'ALEMBERT
Tower 55 - Hall 55/65, 5th floor
- L2E
Hall 65/66 – 1st floor
- ICS
Hall 65/66 - Desk 312

Other Campuses

D'ALEMBERT
ST-CYR
2 place de la gare de ceinture -
78210 St Cyr l'École

F2M [ENSAM]
151 Boulevard de l'Hôpital - 75013 Paris

GEEPS

11 rue Joliot Curie Plateau du Moulon -
91192 Gif-sur-Yvette

Institut de la Vision (1 research team)
17 rue Moreau - 75012 Paris

IPAL

IPAL CNRS - 1 Fusionopolis Way, SINGAPORE

ISCC

20 rue Berbier-du-Mets - 75013 Paris

IUIS

Faculté de Médecine Pierre et Marie Curie
91 Bd de l'Hôpital - 75634 Paris

LCQB

Cordeliers campus
15 rue de l'École de Médecine, 75006 Paris

LIB

- Cordeliers campus -15 rue de l'École de médecine 75006 Paris
- 91 Bd de l'Hôpital - 75634 Paris

LIMICS

Cordeliers campus -15 rue de l'École de médecine - 75006 Paris

LUTIN

Cité des Sciences et de l'Industrie, la
Villette, 75930 Paris

STMS [IRCAM]

1 place Igor Stravinsky - 75004 Paris

UMMISCO

IRD Ile de France
32 avenue Henri Varagnat - 93143 Bondy

Faculty of Engineering

4 place Jussieu

75252 PARIS Cedex 05, FRANCE

UFR 919, September 2017

www.ingenierie.upmc.fr

www.upmc.fr

Faculty of Engineering



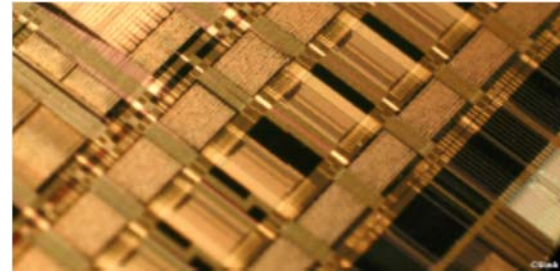
Faculty of Engineering

UPMC, Sorbonne Universités, Paris

Created in 2007

- 15 laboratories
- 400 doctoral students
- 350 researchers and teachers
- 4 learning departments
- 3 pedagogical platforms
- 4000 students along 5 years curricula

Computer Science



The UPMC bachelor's degree in computer science is a 3-year program, intended for students who have a high school diploma in Science. The first year consists of a multi-disciplinary choice of courses (such as mathematics, computer science, physics and engineering) and allows students to gradually define their courses selection before focusing on a specific domain, such as a bachelor of computer Science.

At L2 and L3 levels, computer science skills are at the core of our academic program: 108 out of the 120 ECTS required to complete the bachelor program, are dedicated to computer science courses. Additional teaching units in mathematics and English are also part of the program requirements.

Our program educational objectives are designed to help student acquire in-deep knowledge of the fundamentals by means of theoretical courses and practical projects, enabling them to pursue their studies in various master degree programs or, in case of a study/work training program to enter the workforce upon graduation.

www.licence.ufr-info-p6.jussieu.fr

Mechanics



The subject area of mechanics provides teaching in the engineering sciences and, more particularly, in the fields of the mechanics of fluids and energetics, the engineering of structures and materials, acoustics, robotics, industrial automation or civil engineering.

In the second year of the licence, scientific teaching is reinforced in four fundamental disciplines: mathematics, physics, computer science and mechanics. In the fourth semester, through a choice of optional teaching, students are introduced to the different domains of application of mechanics.

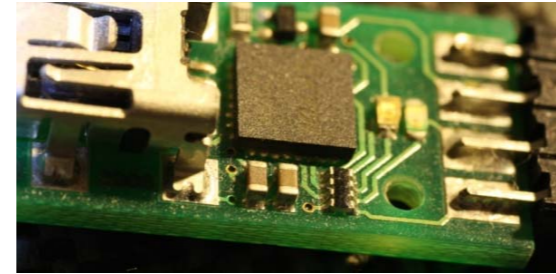
In third year, according to students' tastes, a specialization is offered in one of the four programs of study within the subject area. Two of these programs of study lead to a **master's degree in engineering sciences (SPI – Sciences pour l'Ingénieur)**:

- Mechanics and modelling program
- Mechanics and technologies program

There are two other professional training programs, involving alternating periods of university lectures and work placements and apprenticeship.

www.licence.meca.upmc.fr

Electrical Engineering



Electronics is everywhere... Study in this area is the promise for diverse and attractive career opportunities in high-tech sectors in full evolution.

General Bachelor in Electrical Engineering program

The bachelor of electrical engineering (EEA) at UPMC proposes an education program combining the theoretical concepts and experimental practices to build a solid foundation on basic knowledges in electrical engineering. The program integrates the fundamentals of mathematics, physics and computer programming.

The courses in the bachelor program are designed to prepare the basics for master study. After a bachelor degree in electrical engineering, the majority of students pursue their study toward a master degree, with a specialization chosen among instrumentation, communication, robotics, imaging or engineering for health, in the

Master program of Sciences for Engineers of UPMC, or in electronic and computer systems, in the Master program of Computer Science of UPMC.

Three-year Vocational bachelor program

The vocational bachelor program is offered to students who are interested in an applicative training and want an earlier integration in the industry. They can choose this program after their first year of university study.

The year 2 of the vocational program is a preparatory year for entry into the 3rd year of a vocational bachelor. It is a common program with the mechanical engineering bachelor track. It includes a mandatory internship of 8 weeks.

At the year 3, the vocational bachelor program forms assistant engineers through alternate training and apprenticeship education, or continuing training.

www.licence.elec.upmc.fr

The Faculty of Engineering also hosts two Doctoral Schools for PhD students

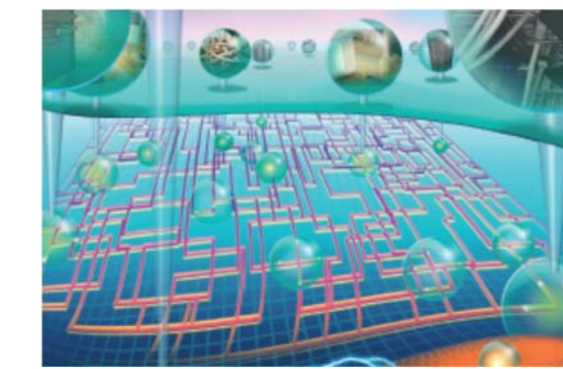
Doctoral Schools optimize training opportunities, resources and administrative services related to the doctorate.

- **ED 130 - EDITE: Computer Science, Telecommunications and Electronics of Paris**
<https://edite-de-paris.fr>
- **ED 391 - SMAER: Mechanics, Acoustics, Electronics, Paris**
www.ed391.upmc.fr



UPMC
Faculty of Engineering

Computer Science



The Master of Computer Science is a selective program giving to students a high scientific and technical level of expertise in computer science. It is divided into 9 teaching programs, which cover a wide spectrum of skills and knowledge. The master also proposes two international programs, a European one in IT within the EIT ICT Labs, and one in Networks at the Pôle Universitaire Français of Ho-Chi-Minh City in Vietnam, and holds several partnerships with foreign universities.

The training lasts two years and is divided into four semesters with a progressive specialization, the last semester being devoted to an internship of 5 to 6 months. There are about 800 students (400 in first year, 400 in second year).

The master has strong interaction both with the academic sector, in particular with the LIP6 and other CS laboratories at UPMC, and with the industrial sector, with many partnerships and projects with companies. As a matter of facts, there is a very high demand from the labor market for students holding the diploma (the median time to find a job after the diploma is one month).

9 Specializations

ANDROIDE: artificial intelligence, decision theory, operational research and simulation.

BIM (Bioinformatics and Modeling): data analysis and computational modeling in biology and medicine.

DAC: advanced topics in databases, machine learning and computational intelligence.

IMA: image processing and understanding, pattern recognition including machine learning, computer vision and computer graphics.

RES: computer and telecommunication networks.

SAR: design and development in a distributed environment.

SESI: hardware and software design of embedded systems.

SFPN: security through cryptography and high-performance computing.

STL (Science et Technologie du Logiciel - Software Science and Technology): programming languages and algorithmic methods.

www-master.ufr-info-p6.jussieu.fr