

# Subjects taught & Research conducted at ParisTech schools

Agricultural engineering - applied mathematics – automatics Bioengineering & biophysics Chemistry - chemical engineering – civil engineering - computational biology - computer science Data science - Earth sciences - economics & social sciences - environmental engineering - electrical, electronic & photonic engineering – energy, nuclear engineering - executive engineering Finance – food engineering - forest engineering Industrial & production engineering - information technology & telecommunications Life sciences Management - materials science & engineering - mechanical engineering Optical sciences – offshore engineering - Physics – Renewable energy - robotics - Statistics - Transport

## With special emphasis on the following subjects at the following Graduate Schools

### AgroParisTech

Life Science, Biology, Agronomy, Crop Science, Plant Protection, Forestry, Wood, Animal Science, Environmental Science & Engineering, Management of Natural Ressources/Environment, Sustainable Development, Water, Ecosystems, Territory Planning, Rural Economics, Economics, Public Policies, Food Science & Technology, Food Engineering, Chemistry, Biotechnology, Human Health, Nutrition, Public Health Risk Prevention, Mathematics & Modelling for Life Sciences, Biomaterials Engineering

#### Arts et Métiers

Mechanical engineering, Industrial & production engineering, Materials science & engineering, Energy, Renewable energy, Robotics/Corobotics, Environmental engineering, Nuclear engineering, Electrical engineering, Bioengineering, Transportation Engineering, Biomechanics, Biomaterials, Advanced manufacturing systems, Production systems, Virtual & Augmented reality, Additive manufacturing, Aeronautical and Space Engineering, Mechatronics Engineering, Fluid Mechanics

#### Chimie ParisTech - PSL

Analytical Chemistry, Ancient & Heritage materials, Chemical and Process Engineering, Chemistry for Health, Electrochemical Storage, Environmental science, Hydrogen Technology, Materials Science, Medicinal Chemistry, Micro Flow & Diagnosis, Nanomaterials for Solar Cells, Nuclear Chemistry, Optics & Optoelectronics, Organic and Bioorganic Chemistry, Physical Chemistry of Surfaces, Plasma Processes, Polymers & Catalysis, Project Management, Risk Management, Solid State Chemistry, Structural Metallurgy, Theoretical Chemistry

## Ecole des Ponts ParisTech

Civil and Structural Engineering, Environmental Engineering, Transportation Engineering, Eco-design, City planning, Mechanical Engineering, Materials Science, Industrial Engineering, Robotics, Energy efficiency, Innovation management, Supply Chain, Design Thinking, Economics, Management, Finance, Data sciences, Applied Mathematics, Computer Science, Statistics and data analysis. Computer vision, Machine Learning

#### **ESPCI Paris - PSL**

Environmental chemistry, Organic synthesis Bioengineering and Biophysics, Inorganic chemistry, Molecular chemistry, Polymer chemistry, Optics, Acoustics and Imaging, Microfluidics and Soft Nanotechnology, Soft Matter and Complex Materials Engineering, Chemical Engineering, Fluid Mechanics, Physics of transport, Mesostructures and Quantum Structures, Solid State Physics, Artificial Intelligence, Machine Learning

#### Institut d'Optique Graduate School

Physics of light and its interaction with matter, Ray optics and aberrations, Advanced wave optics, Instrumentation Optical system design, Imaging, Photometry, Detection, Lasers and electro-optics, Non-linear optics, Optical fibers, Detectors, Biophotonics, Nanophotonics, Space optics, Solar energy, Electronics and computer science for signal and image processing, Telecommunications, with minors in technology and management of innovation

## MINES ParisTech - PSL

Major: Science and executive engineering, Minors: Public affairs and innovation, Biotechnology (BIOTECH), Industrial economics (ECOINDUS), nuclear engineering (GA), Geosciences (GESOCIENCES), Geostatistics and applied probabilities, Scientific management / Organization and performance of the company (GS / OPE), Design engineering (IC), Numerical engineering and complex systems (IDSC), Innovation and entrepreneurship (I&E), Machinery & Energy (M&E), Information systems management (MSI), Applied Mathematics: Robotics, Vision and Automatics (MAREVA), Processes and Energy (P&E), Materials Science and Engineering (SGM), Soils and basement (S&SS), Production and logistics systems (SPL)