OVERVIEW
Since 1917, Institut d’Optique is the higher education and research institution of photonics in France and worldwide leader in this field for education, research and innovation.

The education programme is designed to train SupOptique engineers, providing them with:
- An unrivalled level of scientific and technological expertise in photonics
- A comprehensive training to the professions of engineer
- A graduate school open on the world.

EDUCATION TRACKS
- 20 different thematic tracks
- A dedicated education (regular, entrepreneurship, co-op / apprenticeship programme in a company)
- 80% of the courses offered in English from Master 1st year onwards
- A wide choice of double-degrees in France and abroad.

CAREERS
- The average hiring time for the graduates is 2 weeks
- When starting their careers, SupOptique engineers work in majority in R&D, either in companies or in academic research. 15% create their start-up company
- After 5 years, SupOptique engineers become project managers, unit managers, product managers or executive managers in companies mainly involved in photonics
- Employers are active in aerospace, defense, lasers, automotive, lighting, biomedical and telecommunications industries. 10% of the graduates chose finance or auditing.
3 EXCELLENCE TRACKS FOR AN A-LA-CARTE EDUCATION

A STRONG FOOTHOLD IN R&D
A CLOSE LINK WITH COMPANIES

RESEARCH AT THE HEART OF TEACHING
Institut d’Optique hosts three outstanding research centres, operated by faculty staff of worldwide renown. Their expertise in optics and photonics is at the core of the school’s education approach.

COHORT SPONSORS
Each cohort of students is sponsored by a high-tech company, such as Thalès, Nokia, Safran, ArianeGroup/Sodern, Lumibird, HGH Infradred, ...

THE 503, FIRST ENTREPRENEURSHIP CENTRE IN PHOTONICS IN THE WORLD
503 gathers, in a same location, engineering students in the entrepreneurship track and innovative companies. Students learn from the experience of field actors in this ecosystem dedicated to innovation.

A degree programme that brings together fundamental physics concepts and technological innovations
EDUCATION AT SupOptique

MASTER OF SCIENCE IN ENGINEERING

FINAL BSc YEAR (1ère ANNEE): FOUNDATIONS
A base of demanding courses to understand the fundamental concepts of the Physics of Light and put into practice the essential instruments and core methods of the SupOptique engineers, which they will deepen during the remaining of the programme.

OPTICS WAVES & MATTER
To understand the nature of light

OPTICAL & PHOTONIC TECHNOLOGIES
To master light

SIGNAL & INFORMATION
To use light

The engineer in the society
Economics & Companies Communication Teamwork Drama workshops Student association projects Engineer & ecological transition English & 2nd foreign language

COMMON CORE

MASTER 1ST YEAR (2ème ANNEE): PROFICIENCY
The core of the programme gives the students the advanced conceptual keys to analyse complex physical situations and photonic systems. It enables them to create their own solutions to technical questions while consolidating and combining their skills in the physics of light, instrumentation and signal processing in a thorough engineer-physicist approach.

Coherent Optics & Light-matter Interaction
Atom physics Non-linear optics Fourier optics

Elective courses
- Statistical physics
- Laser-matter interaction
- X-rays and applications
- Semiconductors sources
- Electro & acousto-optics
- Optics for energy

Optical systems design
- Radiometry
- Detection systems
- Guided waves optics & communications

Optical systems engineering
- Scientific calculus
- Automation
- Interfacing
- Digital control

Signal processing

Signal & image processing
Optics & art

The engineer & the corporate world
Negociation, Relational intelligence, Conflict management Knowledge of the corporate world Innovation & creativity Team management Accounting and financial management English & 2nd foreign language

MASTER 2ND YEAR (3ème ANNEE): EXPERTISE
The final year transforms SupOptique students into experts of their field, able to evaluate and review technical solutions, scientific results, including their own proposals. They acquire the ability to formulate them as competent and self-demanding professionals, aware of the human, economic, financial, social and environmental dimensions of their profession.

Elective courses
- Statistical physics
- Laser-matter interaction
- X-rays and applications
- Semiconductors sources
- Electro & acousto-optics
- Optics for energy

Optical systems design
- Radiometry
- Detection systems
- Guided waves optics & communications

Optical systems engineering
- Scientific calculus
- Automation
- Interfacing
- Digital control

Signal & image processing
Optics & art

The engineer in the society
Economics & Companies Communication Teamwork Drama workshops Student association projects Engineer & ecological transition English & 2nd foreign language

Professional integration
Engineering & ethics Psychosocial risks awareness Project management Patents, intellectual property English & 2nd foreign language
A 3-STEP CURRICULUM: UNDERSTAND, MASTER, APPLY

BSc FINAL (1A)
- Common core - UNDERSTAND - PRACTICE
  - Photonics, Physics, App maths, Digital, Electronics
  - Training to the professions of engineer
- Internship (1 month)

MSC 1st (2A)
- Common core - MASTER - ANALYZE
  - Photonics, Physics, App maths, Digital, Electronics
  - Training to the professions of engineer
- Internship (3 months)

MSC 2nd (3A)
- Elective minors - APPLY - EVALUATE
  - or double-degrees (FRANCE or INTERNATIONAL), or masters in research or specialized masters
- Internship (6 months)

Master of Science in Engineering degree (Diplôme d’ingénieur-e) from Institut d’Optique

A TYPICAL WEEK AT SupOptique

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<td>English</td>
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<td>Lectures / Tutorial classes</td>
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<td>Humanities and social sciences</td>
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BEING PART OF AN ALUMNI COMMUNITY
Photonics worldwide is a community of researchers and engineers with a passion for the physics of light. SupOptique Alumni are part of these thriving people, companies and research centres. The Alumni association is present on campuses and accompanies students in their professional integration. It weaves strong networks between all the cohorts.