International Program

MASTER’S DEGREE in Acoustics

Master accredited by the French Ministry of Higher Education and Research with possibilities to continue for a PhD.

2 year Master program backed by four internationally recognized engineering schools.

8 research laboratories of Université de Lyon and CeLyA, an alliance of the main research teams working in acoustics in Lyon:

- LMFA
- LTDS
- CREATIS
- LGCB
- LVA
- LabTAU
- CRNL
- LAE

Initial and continuous training

Objectives

- To train in various recent fields of Acoustics.
- To be able to join a R&D department of a company or to continue with a PhD thesis carried out in a research laboratory or in collaboration with an industry.

Prerequisites

- Bachelor degree (or equivalent) in Science or Engineering.
- Certified B1 level in English (CEFRL).

Scientific fields

- Application of Ultrasound in Medicine.
- Sound Perception.

Training course recognized by major industrial companies, consultants and research laboratories.

The "Centre Lyonnais d'Acoustique", CeLyA, has been funded in 2011 as a "Laboratoire d'Excellence" by the French Ministry of Research.

An international jury has selected a total of 170 projects in all disciplines, from Pure Mathematics to Social Sciences. CeLyA was awarded a total financial support of 6M€ for a period of 10 years (600k€/year).

CeLyA is the only LabEx devoted entirely to Acoustics.
**Key points of the ACOUSTICS program**

**International program** open to students from France and from abroad.

- A significant part of the training promotes the gradual acquisition of **scientific communication in English**, especially in offering high-level scientific lectures in English with worldwide internship opportunities.

- Numerous **elective and specialized courses** during the second year, with support from the research teams of the **Centre Lyonnais d’Acoustique** (CeLyA), and links between laboratories and industrial partners.

## International Program

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<tr>
<th>S1</th>
<th>Sound and Acoustic Propagation</th>
<th>Signal and Speech Processing</th>
<th>Fundamentals of Mechanics</th>
<th>Continuum Mechanics</th>
<th>Language French</th>
<th>English</th>
<th>Mgmt Project &amp; Comm</th>
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<tr>
<td>S2</td>
<td>Acoustic Modelling (Numerics, Project)</td>
<td>Vibrations</td>
<td>To go beyond : Musical Acoustics, Structures, Image Signal Processing, Adaptive Filtering...</td>
<td>Language French</td>
<td>English</td>
<td>Internship in Lab</td>
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<tr>
<td>S3</td>
<td>Advanced Acoustics</td>
<td>Specialization in Aeroacoustics, Sound Perception, Building Acoustics, Vibroacoustics...</td>
<td>Applications to Environmental Issues, Transportation...</td>
<td>General Course</td>
<td>Language French</td>
<td>English</td>
<td>Mgmt Project &amp; Comm</td>
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<tr>
<td>S4</td>
<td>Research Internship in a laboratory or in a R&amp;D department (industry)</td>
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- **Research training** with more than one semester of internship (in a research laboratory or a R&D department in industry, in France or abroad), and two training periods to be performed in a partner laboratory.

- Lyon is an **international reference** in the field of Acoustics covered by the Master. The associated laboratories skilfully combine fundamental research with industrial applications and weaved a large international network with other academic or non-academic research partners and with leading high-tech industries.

Furthermore, students can select courses from all the institutions involved in this program, which offers a wide range of elective courses.

### Contacts

**Program managers**

- Pr. Christophe Bailly (ECL)
- Pr. Jean-Christophe Bera (Polytech)
- Pr. Etienne Parizet (INSA)
- Dr. Catherine Marquis-Favre (ENTPE)

**Management of applications**

- [scolarite.registration@listes.ec-lyon.fr](mailto:scolarite.registration@listes.ec-lyon.fr)

**More information**

- [http://master-acoustics.ec-lyon.fr](http://master-acoustics.ec-lyon.fr)