

# ACOUSTICS

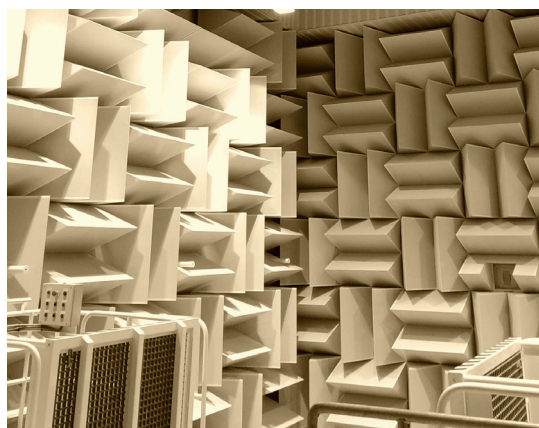
## MASTER DEGREE

✓ Initial and continuous training

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



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

## 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.

## SCIENTIFIC FIELDS

- ▶ Engineering Acoustics : aeroacoustics, vibro-acoustics, building acoustics and non-destructive evaluation.
- ▶ Application of Ultrasound in Medicine.
- ▶ Sound Perception.

## PREREQUISITES

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



**LABEX  
CELYA**  
UNIVERSITÉ DE LYON

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# 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.

S1	Sound and Acoustic Propagation	Signal and Speech Processing	Fundamentals of Mechanics		Continuum Mechanics		Language French English	Mgmt Project & Comm
S2	Acoustic Modelling (Numerics, Project)	Vibrations	To go beyond : Musical Acoustics, Structures, Image Signal Processing, Adaptive Filtering...			Language French English	Internship in Lab	
S3	Advanced Acoustics	Specialization in Aeroacoustics, Sound Perception, Building Acoustics, Vibroacoustics...		Applications to Environmental Issues, Transportation...		General Course	Language French English	Mgmt Project & Comm
S4	Research Internship in a laboratory or in a R&D department (industry)							

- ▶ 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.

- ▶ **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.



## CONTACTS

### Program managers

Pr. Christophe Bailly (Centrale Lyon)  
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>



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