



Master of Sciences in Acoustics – M2 Year

Marc C. Jacob (*), Christophe Bailly, Didier Dagna & Vincent Clair

(*) *Marc C. Jacob: Head of M2 Program (HoP) since September 1st, 2020*

marc.jacob@ec-lyon.fr # +33 (0)472 18 6007

<http://acoustique.ec-lyon.fr>

<http://master-acoustics.ec-lyon.fr>



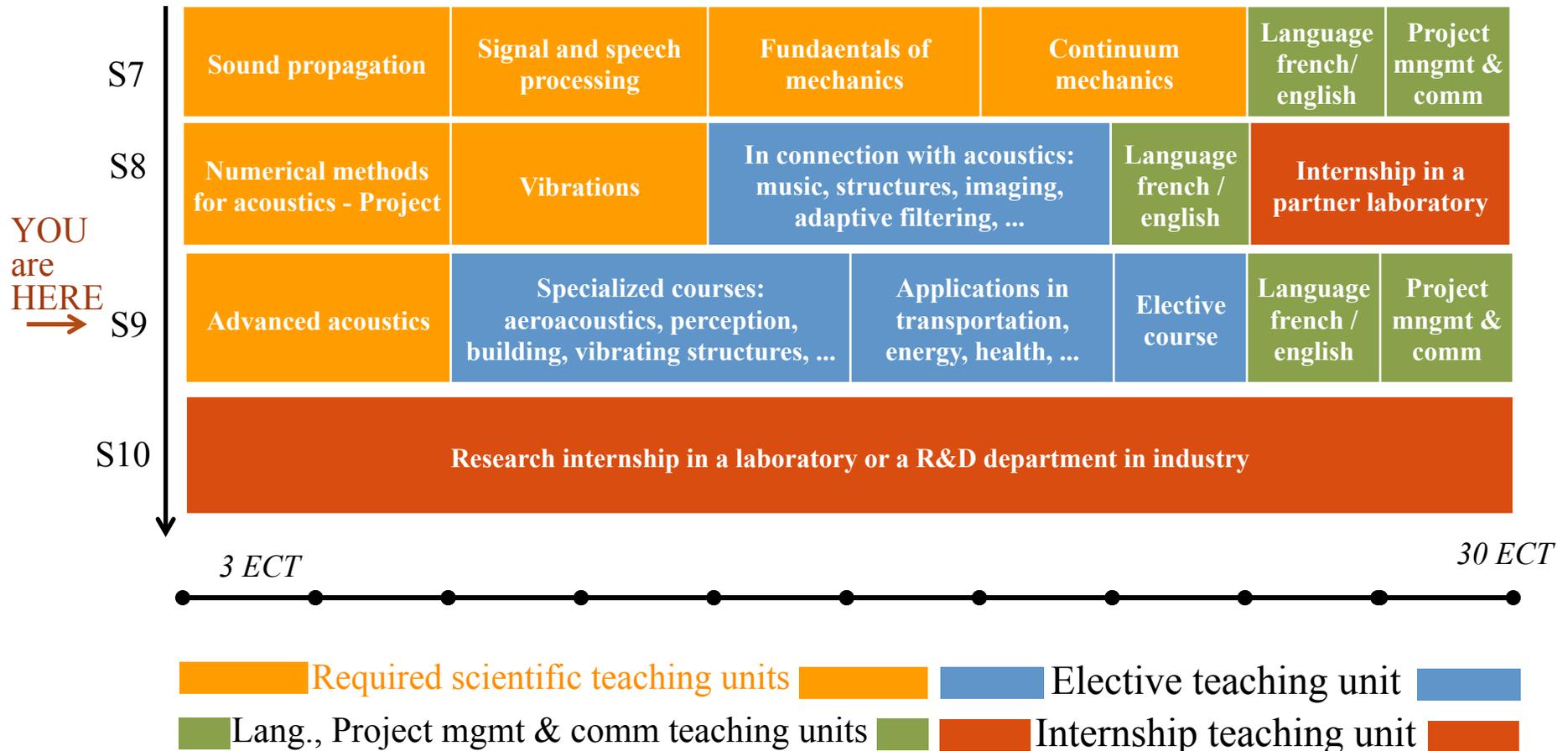
You are in the 2nd year M2 of the MSc. in Acoustics

- as a student enrolled in the full 2nd year program having either completed the 1st year M1 or being directly admitted into the 2nd

- as an engineering student from the 3rd year of ECL, INSA, ENTPE or Polytech-Lyon, enrolled in a dual curriculum (cursus)

In any case... WELCOME !

Master Program (1/3) - Overview



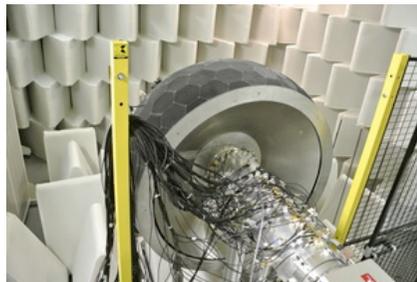
Master Program (2/3)

A course program tailored for your professional project

Examples

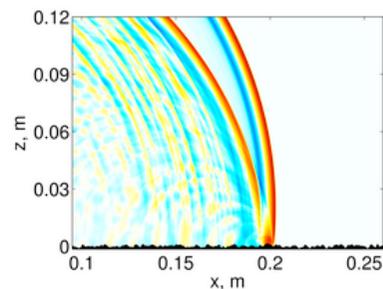
Aeroacoustics

- Advanced acoustics
- Aeroacoustics
- Active control
- Transportation noise
- Fluid – structure interactions
- Physics of turbulent flows
- Numerical simulation of flows



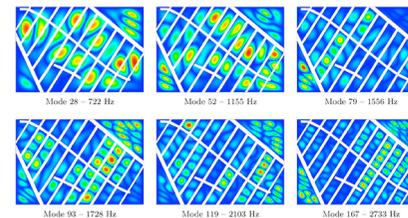
Eng. Acoustics

- Advanced acoustics
- Environmental acous.
- Building acous.
- Sound perception
- Transportation noise
- Fluid – structure interactions
- Numerical methods for acoustics



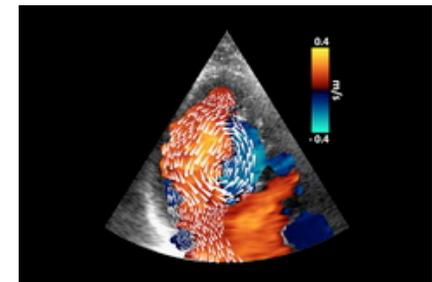
Vibroacoustics

- Advanced acoustics
- Active control
- Transportation noise
- Propagation of elastic waves
- Nonlinear vibrations
- Sound structure radiation
- Fluid – structure interactions



Ultrasound

- Advanced acoustics.
- Sound perception
- Ultrasound imaging
- Environmental acous.
- Ultrasound applications
- Numerical methods for acoustics
- Active control





Master Program (3/3)

- M2 classes given in Fall semester (End of September through March)
- Internship in Spring semester (April through mid-September : (-6 months training period)

An individual training path (1/1)

- **Case A: Student enrolled in the full second year program**

Your scientific cursus must be composed of

- 7 teaching units,
- including the common course Advanced acoustics.

- **Case B: Engineering student at ECL**

Your scientific cursus must be composed of

- 6 teaching units,
- including the common course Advanced acoustics.

You can choose almost all your courses in M2 year according to your professional project, e.g. Aeroacoustics, Engineering Acoustics, Vibrations, Ultrasound, ...

- **Within some limits:**

- compatible time table →
- your personal background (especially for courses that are not part of the MSc. Program) →

An individual training path (2/3)

Examples are provided in:

- the file MScAcous-M2-ListCourses.pdf
(including a list of specialized courses associated with this MSc)

But a complete list of courses is available here:

- <http://www.ec-lyon.fr/en/academics/general-engineering>
(so-called MoD - from Oct. to Dec. and MoS - from Jan. to March)

All Information to be found on:

- <https://acoustique.ec-lyon.fr/masteracuk.php>
- and on the moodle page: <https://pedagogie3.ec-lyon.fr/course/index.php?categoryid=518>

All theoretical courses will start from:

- Monday, Sept, 28 (MoD), except Building Acoustics !! (schedule available on website shortly)

You are welcome to any of the variety of seminars offered by:

- ECL, INSA, ENTPE labs and by CeLyA, doctoral schools... and also PhD defences.

An individual training path (2/3)

How do I chose my path ?

1. I define my objectives and formulate my expectations
2. I read carefully the syllabus of the M2 Courses
3. I select those which seem interesting to me, according to the 1. & 2.
4. I discuss about 1. 2. 3. with other people and M2 professors (*)
5. I down select the 5 (case B) or 6 (case A) courses that I chose additionally to Advanced Acoustics
6. I notify the HoP about my choice

(*) I booked room B11 for discussions on:

- Wednesday Sept. 16 , 2-4 pm (14:00 – 16:00)
- and Thursday Sept 17 , 2-4 pm (14:00 - 16:00)

Miscellaneous (1/2) ... about writing

Language

- Language classes are very important for writing your Master thesis
→ take dedicated classes seriously (Florence Milon) : it is a unique chance to improve (for free ! Private classes are expensive !)

Style

- Also, precise wording: each word has a meaning, each sentence has a single message, each section addresses a single topic.
- Clear & concise writing ⇔ clear ideas

Reporting

- How to organise a scientific report ?
- How to generate a nice plot ?
- How to make proper referencing ?

It is about time to be comfortable with all this !



All Case A students (case B are also welcome):
to attend my class about this topic on Sept. **, ** Hrs, Room tbd

Miscellaneous (1/3)

..

Language

- Language classes are very important for writing your Master thesis
→ take dedicated classes seriously (Florence Milon) : it is a unique chance to improve (for free ! Private classes are expensive !)

Style

- Also, precise wording: each word has a meaning, each sentence has a single message, each section addresses a single topic.
- Clear & concise writing ⇔ clear ideas

Reporting

- How to organise a scientific report ?
- How to generate a nice plot ?
- How to make proper referencing ?

It is about time to be comfortable with all this !



All Case A students (case B are also welcome):
to attend my class about this topic on Sept. **, ** Hrs, Room tbd

Miscellaneous (2/3) Evaluation

Exams

- Most Courses that are part of the Master of Acoustics program, will **organise a special exam** session for the Master (Case A & B)
- However: **extra curricular** courses usually **do not** organise a special session for M2-Acoustics student(s) : for such courses you have to undergo the ECL exams and you'll obtain the ECL grades

Grading

- For each course grading includes the exam and other marked classes such as lab classes for instance or home assignments)
- Each course must be validated (passed) individually
- The final research internship is 30 credits, that is, 50% of the final grade

Re-sit

- There will be **no re-sit !** → this means that you have to **pass at the first shot !**

Miscellaneous (3/3)

..

Contact Points

- Administration / Registration : Lisa Mihami lisa.mihami@ec-lyon.fr
- Languages: Florence Milon florence.millon@ec-lyon.fr
- HoP: Marc C. Jacob (ECL) : marc.jacob@ec-lyon.fr
- **Other ECL profs involved**
 - Christophe Bailly; christophe.bailly@ec-lyon.fr
 - Didier Dragna: didier.dragna@ec-lyon.fr
 - Vincent Clair: vincent.clair@ec-lyon.fr
- **M2- correspondents**
 - Université Lyon 1: Jean-Christophe Bera jean-christoph.berae@inserm.fr
 - INSA-Lyon: Etienne Parizet etienne.parizet@insa-lyon.fr
 - ENTPE-Lyon: Catherine Marquis-Favre catherine.marquisfavre@entpe.fr

ECL Campus

..





Any questions ?