

INF231:  
Functional Algorithmic and Programming  
Lecture 0: General Information

Academic Year 2023 - 2024

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## Some practical information

### Lecture sessions:

- ▶ Romain Couillet
- ▶ Wednesday, 9:45am - 11:15am
- ▶ *one exception*: 1st class on first week: **Monday, 9:45am - 11:15am**

### Exercise sessions (TD):

- ▶ Romain Couillet
- ▶ Tuesday, 3:15pm - 4:45pm

### Practice sessions (TP):

- ▶ Romain Couillet
- ▶ Thursday, 1:30pm - 3:00pm (+ 3:15pm - 4:45pm if needed)

**Caseine:** For course interaction, contact me on [Caseine](#)

**Email:** [romain.couillet@univ-grenoble-alpes.fr](mailto:romain.couillet@univ-grenoble-alpes.fr)

# Some practical information

continued

## Web pages:

- ▶ your main link: <https://moodle.caseine.org/course/view.php?id=434>
- ▶ my personal webpage:  
<http://polaris.imag.fr/romain.couillet>

## Phone numbers:

- ▶ +(+33) 457 421 542

## Office location:

- ▶ Office 438, Bâtiment IMAG, 700 avenue Centrale

Meetings are possible (on appointment).

## One week of INF 231 is:

- ▶ 1 Lecture session (cours): 1h30
- ▶ 1 Exercise session (TD): 1h30
- ▶ 1 Practice session (TP): 1h30

## Teaching Material

- ▶ Lecture Notes (slide handouts)
- ▶ Website (mainly Caseine)
- ▶ OCaml interpreter: to install first of all on your laptops!  
<https://moodle.caseine.org/mod/book/view.php?id=35853>
- ▶ Also available is an online version (to use with care!)  
<https://try.ocamlpro.com/>
- ▶ References

## Getting ready to start!

Everything is on Caseine:

<https://moodle.caseine.org/course/view.php?id=434>

- ▶ subscribe to exercise session (TD) groups
- ▶ TP = groups of 3 students
- ▶ locate the links to classes, material, lab report dropout, etc.
- ▶ explore Caseine!

# Assessment

... yes we have to go through this...

- ▶ Mid-term exam (during week 6 or 7)
- ▶ All your lab reports
- ▶ Project
- ▶ Final Exam

Final Grade = 60%.Final Exam + 20%.CC1 + 20%.CC2

CC1= 40%.*TP* + 60%.*Project*

CC2= Midterm Exam

## References

- ▶ Guy Cousineau et Michel Mauny. *Approche fonctionnelle de la programmation*. Ediscience (Collection Informatique), Paris, 1995, ISBN 2-84074-114-8.
- ▶ Emmanuel Chailloux, Pascal Manoury et Bruno Pagano. *Développement d'applications avec Objective Caml*. Editions O'Reilly, Paris, 2000, ISBN 2-84177-121-0.
- ▶ Xavier Leroy et Pierre Weis. *Manuel de référence du langage Caml*. InterEditions, Paris, 1993, ISBN 2-7296-0492-8. Version électronique
- ▶ Ocaml Inria web site
- ▶ Ocaml Reference Manual
- ▶ Ocaml Interpreter (online or not)
- ▶ Programming Conventions in Ocaml:
  - ▶ <http://caml.inria.fr/resources/doc/guides/guidelines.fr.html>
  - ▶ [http://www.seas.upenn.edu/~cis500/cis500-f06/resources/programming\\_style.html](http://www.seas.upenn.edu/~cis500/cis500-f06/resources/programming_style.html)



# Lecture Agenda

4 main parts

- ▶ Types, expressions, functions
- ▶ Recursion
- ▶ Higher-order (functions)
- ▶ Tree-based Structures

## Acknowledgments

This course has been previously taught by Michaël Périn, Francois Puitg, and Thanh Hai To.

Lecture slides are based on Thanh Hai To's latest class, themselves based on:

- ▶ some previous lectures by Michaël Périn, François Puitg, and Thomas Braibant
- ▶ lecture notes of Jason Hickey - *Introduction to OCaml*