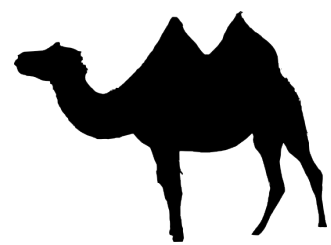
GRENOBLE 1 UNIVERSITE JOSEPH FOURIER
SCIENCES.TECHNOLOGIE.SANTÉ

INF121:
Functional Algorithmic and Programming

Lecture 0: general information

Academic Year 2014 - 2015



Practical information

Lecture sessions:

- Frederic Bouquet
- Wednesday, 8am - 9:30am

Exercise sessions (TD):

- Laurent Mounier
- Thursday, 5:00pm - 6:30pm

Practice sessions (TP):

- Laurent Mounier
- Wednesday, 1:30pm - 4:45pm

Emails:
- frederic.bouquet@viseo.com
- Laurent.Mounier@imag.fr

Practical information

continued

Web pages:

- http://www-verimag.imag.fr/~mounier/Enseignement/INF121/
- http://inf121.github.io/

Meetings are possible (on appointment)

One week of INF 121, it is:

- 1 Lecture session (cours): 1h30 in D104
- 1 Exercise session (TD): 1h30 in B114
- 1 Practice session (TP): 1H30 in A102
- A lot of Personal Work:
  - 1 Practice session on your own
    (finishing practical assignments, project, . . .)
  - Autonomous Work

Teaching Material

- Lecture Notes (slide handouts)
- Exercise and Machine dev
- Website (mainly the Moodle)
- OCaml interpreter

  DEMO: command-line & online: `http://tinyurl.com/ocamltop`

- References

Assessment

continuous

- Quicks (≈ 3)
- Mid-term exam (during week 6 or 7)
- Project
- Final Exam

$$\text{Final Grade} = 60\%.\text{Final Exam} + 20\%.\text{CC1} + 20\%.\text{CC2}$$

$$\text{CC1} = 10\%.\mathit{TP} + 30\%.\mathit{Quicks} + 60\%.\mathit{Project}$$

$$\text{CC2} = \text{Midterm Exam}$$

One sheet of paper (A4) of paper authorized (to be confirmed)

Some Advice

Sounds naive but they are the key to your success

Pay attention in the lectures: *Never get out of a lecture room without having an understanding of everything. Exercise sessions are not purposed to understand the lectures but to practice*

Ask questions: *If you have a question, at least two of your fellows have the same question*

Work hard and on a regular basis: *Thinking that you can assimilate the content one week before the exam is illusory*

Don't hesitate to contact me if you are lost on something:

- *I am available and willing to help*
- *Try to solve the problem by yourself→ try with your fellows→ send me an email*

Don't get lost in the middle of the semester / Never give up

"*I hear, I forget*,
I see, I remember,
I do, I understand"
Confucius

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 electronique
- 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`

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 and Francois Puitg

Lecture slides are partially based on:

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