



# Faculté des sciences appliquées

**FSA**

INGI2114 **Computer system design**

[30h+30h exercices] 5 credits

This course is taught in the 1st semester

**Teacher(s):** Olivier Bonaventure, Marc Lobelle (coord.), Peter Van Roy  
**Language:** french  
**Level:** 2nd cycle course

## Aims

- To compare various types of operating systems to understand their advantages and drawbacks
- To understand and explain the main problems that are solved by an operating system and show how those problems are solved with their advantages and drawbacks
- To identify the main configuration and management choices for systems

## Main themes

- Processes and threads : concepts, problems and solutions
- Memory management
- Input-Output
- Multiprocessor systems
- Security and fault-tolerance
- Principles of system management

## Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

- Prerequisite:
  - \* INGI2113 Structures et utilisation des systèmes informatiques
  - or
  - \* LINF1252 Introduction aux systèmes informatiques Marc Lobelle
- References
- Mandatory Book:
  - Tanenbaum, A. S., "Modern Operating Systems (second edition)" , Prentice Hall Inc, 2001.

## Other credits in programs

<b>INFO21</b>	Première année du programme conduisant au grade d'ingénieur (5 credits) civil informaticien	Mandatory
<b>INFO22</b>	Deuxième année du programme conduisant au grade d'ingénieur civil informaticien (5 credits)	
<b>LINF21</b>	Première licence en informatique (5 credits)	
<b>LINF22/GN</b>	Deuxième licence en informatique (informatique générale) (5 credits)	Mandatory
<b>LINF22/GS</b>	Deuxième licence en informatique (informatique de gestion) (5 credits)	Mandatory