

## Faculty of Applied Sciences



### LINF2224 Programming methods

[30h+15h exercises] 4 credits

This course is taught in the 2nd semester

**Teacher(s):** Charles Pecheur  
**Language:** French  
**Level:** Second cycle

#### Aims

- To refine and formalize programming and proof methods sketched informally in bachelor courses, and apply them in a systematic way to more complex problems.
- To become familiar with software design patterns that can be re-used in different contexts.

#### Main themes

- Study and application of program proof methods: inductive assertions, wp-calculus, structural induction.
- Study and application of programming patterns.

#### Content and teaching methods

see "Main themes"

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

References:

- (1) D. Gries, The Science of Computer Programming, Springer-Verlag, 1981
- (2) E. Gamma, R. Helm, R. Johnson & J. Vlissides, Design Patterns - Elements of Reusable Object-Oriented Software, Addison-Wesley, 1995

#### Programmes in which this activity is taught

**INFO2** Ingénieur civil informaticien

#### Other credits in programs

<b>INFO22</b>	Deuxième année du programme conduisant au grade d'ingénieur civil informaticien	(4 credits)
<b>INFO23</b>	Troisième année du programme conduisant au grade d'ingénieur civil informaticien	(4 credits)
<b>LINF22/GN</b>	Deuxième licence en informatique (informatique générale)	(4 credits)
<b>LINF22/GS</b>	Deuxième licence en informatique (informatique de gestion)	(4 credits)