

# Web Programming (CSci 130)

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# Learning outcome

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- **Object Oriented Programming (OOP) with PHP**

- Clear structured code

- better code organization
    - modularity

- OOP features in PHP

- Added in PHP5

- **Refreshment about OOP**

- Many similarities with other programming languages (like C++)

# Introduction

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- Large websites

- A large number of functionalities to be managed
- Several people involved in the development
  - Importance of modularity, consistence in the code

- PHP

- Like Javascript, it offers some flexibility for the declaration of functions
  - Easy for new comers in programming
  - Can be a curse for large projects
    - Constraints of the language vs. Rigor of the developers
- Like Java, C++, ...
  - PHP provides OOP features

# Content

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- Classes
- Objects
  - Assignment
  - Access/change properties
    - Private, protected, public
- Magic method and constants
- Object
  - Inheritance
  - Interface
  - Polymorphism

# OOP syntax in PHP with examples

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- Code and examples:

- **pho\_oop.php**

- /!\ The content in this file must be known for Midterm 2 & Final
    - To place in your folder C:\xampp\htdocs\mysite1

- Start the server

- Open the file in a browser

# Exercise

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- Create a class Person

- With 2 subclasses

- Student
    - Faculty/Staff

- Relevant properties?

- First name, last name, email : common to both subclasses
    - List of courses (to attend)
    - List of courses (to teach)

- Relevant functions?

- Constructors
    - Get/Set

# Conclusion

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- OOP PHP
  - Not a gadget
  - Necessary to work/program properly
- The lab
  - PHP
    - Syntax + Object
  - JS + AJAX + PHP
    - Send information from the client
      - Array of values
    - Compute average, standard deviation, .... on the server
    - Package the results into a JSON object
    - Receive the results in the client and display them
- Questions?

