

## Faculty of Economic, Social and Political Sciences



### IAG3100 Filière Systèmes d'information

[90h] 15 credits

**Teacher(s):** Manuel Kolp, Alain Pirotte, Marco Saerens, Jean Vanderdonckt  
**Language:** French  
**Level:** Third cycle

#### Aims

At the end of the class, students should

- " Master some recent evolutions of information technologies in relation with internet, and assess their impact on the company.
- " Be able to develop an information system related to e-business.
- " Understand some of the recent advances in information technologies related to the internet, for instance in "web mining".

#### Main themes

- " The analysis and design of information systems, in particular e-business (course1).
- " The study of some web mining algorithms (course2).
- " A computer sciences seminar, related to the internet (seminar1).
- " Strategic analysis, in the context of e-management, with a real-world lab (course3).
- " Analysis, design and implementation of a e-commerce system (lab1).
- " Development of a web recommendation system (lab2).

#### Content and teaching methods

##### Content

- IAG3101 Analysis, modeling and design of information systems, in the framework of e-business (7 ECTS).  
 " This module will introduce some more advanced concepts of the design of information systems, in the framework of e-business, and based on the courses GETI2101 (relational modeling and UML) and SESP1224 (objet-oriented programming). It integrates the already assimilated knowledge (UML, objet oriented programming, etc) and shows how the different components of a e-business information system interact, as well as the different steps needed for the design of such a system. It will include four sub-modules:
  - The analysis and design of information systems, in particular e-business (course1).
  - The study of some web mining algorithms (course2).
  - A computer sciences seminar, related to the internet (seminar1).
  - Strategic analysis, in the context of e-management, with a real-world lab (course3).
- IAG3102 Analysis and programming lab (8 ECTS).  
 " This lab aims to develop two e-business related applications, illustrating the IAG3101 course :
  - Design and development of a e-commerce system (UML, PHP/MySQL, lab1).
  - Development of a web recommendation system (web mining, PHP/MySQL , lab2).

##### Methods

Project-based.

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

Prerequisite : A course on (1) object-oriented programming and (2) requirement analysis and system design, including UML and relational modeling.

Evaluation : Oral exam and presentation

Support : Book chapters will be provided to the students

References :

- S. Bennett, S. McRobb & R. Farmer (2002) "Object-oriented systems analysis and design using UML, 2nd ed". McGraw-Hill.

- R. Elmasri & S. Navathe (2004) "Fundamentals of database systems, 4th ed". Addison-Wesley.

- P. Kruchte (2003), "The Rational Unified Process : An Introduction, 3th ed". Addison-Wesley.

- L. Maciaszek (2001) "Requirements analysis and system design". Addison-Wesley.

- M. P. Singh (2004) "The Practical Handbook of Internet Computing". Chapman & Hall/CRC.

- P. Baldi, P. Frasconi & P. Smyth (2003) "Modeling the internet and the web". Wiley.

Pedagogic team: two assistants or researchers of the ISYS unit

### Other credits in programs

<b>ECGE3DS/AC</b>	Diplôme d'études spécialisées en économie et gestion (Master in business administration) (audit et contrôle de gestion)	(15 credits)	Mandatory
<b>IAG23M</b>	Troisième année de Maîtrise en sciences de gestion (orientation "méthodes quantitatives de gestion")	(15 credits)	Mandatory
<b>IAG23M/PM</b>	Troisième année de maîtrise en sciences de gestion (Création d'entreprise)	(15 credits)	Mandatory
<b>INGE23/G</b>	Troisième Ingénieur de gestion (Générale)	(15 credits)	Mandatory
<b>INGE23/PM</b>	Troisième Ingénieur de gestion (Création d'entreprise)	(15 credits)	Mandatory