

## Faculty of Applied Sciences



### INGI2141 Computer networks: information transfer

[30h+30h exercises] 5 credits

This course is taught in the 2nd semester

**Teacher(s):** Olivier Bonaventure (coord.), Marc Lobelle, Peter Van Roy  
**Language:** French  
**Level:** Second cycle

#### Aims

- To understand and explain the main requirements of distributed and multimedia applications
- To understand and explain the functions used to fulfill those requirements in the different layers of the networking reference model
- To understand and explain how those functions are implemented in the Internet protocols
- To select the appropriate solution based on the application's requirements

#### Main themes

- Role, model and requirements of distributed applications
- Reference model used in computer networks
- Reliable transport of information in data networks : mechanisms and protocols
- Interconnection of networks, addressing, routing : mechanisms and protocols
- Local Area, Metropolitan and Wide Area Networks

#### Content and teaching methods

see "Main themes"

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

- Prerequisite
  - (1) Programming with a high-level language
  - (2) Basic knowledge of hardware and operating systems (LINF1252, INGI2113/INGI2114)
- Reference
 

J. Kurose, K. Ross, Computer Networking : a top-down approach featuring the Internet, Addison-Wesley, 2002
- Remarque: see also <http://www.icampus.ucl.ac.be/INGI2141>

#### Programmes in which this activity is taught

<b>ECGE3DS/IG</b>	Diplôme d'études spécialisées en économie et gestion (informatique de gestion - Master in Information Systems)
<b>FSA3DS</b>	Diplôme d'études spécialisées en sciences appliquées
<b>INFO2</b>	Ingénieur civil informaticien
<b>LINF2</b>	Licence en informatique

**Other credits in programs**

<b>ECGE3DS/IG</b>	Diplôme d'études spécialisées en économie et gestion (informatique de gestion - Master in Information Systems)	(5 credits)	Mandatory
<b>FSA3DS/IN</b>	Diplôme d'études spécialisées en sciences appliquées (informatique)	(5 credits)	
<b>FSA3DS/TL</b>	Diplôme d'études spécialisées en sciences appliquées (télécommunications)	(5 credits)	
<b>INFO21</b>	Première année du programme conduisant au grade d'ingénieur civil informaticien	(5 credits)	Mandatory
<b>LINF21</b>	Première licence en informatique	(5 credits)	
<b>LINF21/GN</b>	Première licence en informatique (informatique générale)	(5 credits)	Mandatory
<b>LINF21/GS</b>	Première licence en informatique (informatique de gestion)	(5 credits)	Mandatory
<b>LINF22/GN</b>	Deuxième licence en informatique (informatique générale)	(5 credits)	