

Welcome Ashraf Uz | [Home](#) | [Logout](#)[Suggerimenti](#) | Autenticato tramite Shibboleth - IDP: Studenti**Politecnico di Torino**

Academic Year 2010/11 (first time established in A.Y.2007/08)

02KSIJA

**Computer networks**

1st degree and Bachelor-level of the Bologna process in Electronic And Computer Engineering - Vercelli (III FACOLTA' DI INGEGNERIA)

Teacher	Status	SSD	Les	Ex	Lab	Years Stability
Sisto Riccardo	PO	ING-INF/05	3	1	1	2

SSD	CFU	Activities	Area context
ING-INF/05	5	B - Caratterizzanti	Ingegneria informatica

**Precedenze:**[Introduction to telecommunication networks \(01MPU\)](#)**Esclusioni:**[Electromagnetic waves II \(02MBQ\)](#)**Objectives of the course**

To teach the fundamentals of the Internet and of the main related protocols of the higher layers, with complementary support of lab experiences.

**Expected skills**

At the end of this course, the student will have a general understanding of the Internet architecture and know how the major higher layer internet protocols work.

**Prerequisites**

The student should have basic knowledge of computer architecture and should have taken the introductory course on Telecommunication Networks.

**Syllabus**

Internet architecture and overview of data-link and network layer basics.  
 IP protocol and IP addressing.  
 Routing in the Internet: BGP, RIP, and OSPF.  
 Transport layer protocols: UDP and TCP.  
 Name resolution: the DNS  
 IP Multicast  
 IP network access: private addressing, network address translation (NAT), proxy server and firewalls.  
 Application layer protocols: HTTP, FTP, Telnet, e-mail protocols (SMTP, POP, IMAP).

**Laboratories and/or exercises**

Practical activities will concentrate on protocol analyzers.

**Bibliography**

Bibliographic references will be given at the beginning of the course.

**Revisions / Exam**

Written final exam (free-text).

Programma definitivo per l'A.A.2010/11

