Telematica A

<u>Programma</u>
Reminders on OSI model, General Internetworking concepts, Internet, transport protocols.

Process communications in Internet. Associations, ports, sockets. The Client/Server paradigm. Connectionless vs. connection-oriented. System calls for socket programming. Assigning ports to processes. Sequential and concurrent tcp servers.

The Domain Name System. Domain name space: tree structure; labels; domains and subdomains. DNS components: Name space; Resolver; Name Server. Nameservers hierarchy, Start Of Authority. The nslookup utility. System calls to the resolver.

Information representation: ASCII code and ASCII extensions, national variants. Unicode. Internet documentation.

Basic Internet applications: remote access and the telnet protocol. Using a telnet client as a diagnostic tool.

Remote file handling: FTP protocl.

Internet e-mail. System architecture: Message Transfer System and User Agents. The SMTP protocol and message formatting as per RFC2822. Message handling on workstations: POP3 and IMAP protocols. Handling non-text information: uuencode and MIME.

The NNTP protocol.

World Wide Web, different types of Information Server. Web addressing: URIs and URLs. Hypertext, browsers and web navigation. Reminders on HTML and hyperlinks.

The HTTP protocol: general concepts, HTTP versions; messages; methods; connection handling. HTTP: intermediate systems, proxy and caching; Cookies; HTTP authentication ans security. Web robots.

Web hosting; Virtual Hosts; Redirection. Configuring http servers.

<u>Propedeuticità</u>
Reti di telecomunicazioni A
Sistemi operativi A

<u>Testi consigliati</u>
W. Richard Stevens: TCP/IP Illustrated, volume 3 - TCP for Transactions,HTTP, NNTP and the UNIX Domain Protocols Addison-Wesley,1996. ISBN 0-201-63495-3