

NOVA Information Management School

NOVA IMS

Course	Computer Networks
Coordinator:	José Barateiro
ECTS	6
Objectives:	<p>The main objectives that should be attained in order to succeed this course are:</p> <ol style="list-style-type: none"> 1: Understand network architectures, communication protocols and related systems; 2: Understand the multiple abstraction layers of communication systems; 3: Acquire technical knowledge about the multiple protocols used on different communication layers; 4: Understand local and wide network requirements; 5: Acquire technical knowledge to assess network security; 6: Acquire technical knowledge to understand the network application challenges.
Curricular Unit Contents:	<ol style="list-style-type: none"> 1. Introduction to computer networks 2. Layered architecture 3. Protocols and services 4. Application layer: web and HTTP, FTP, SMTP 5. Network layer 6. Transport layer 7. Data link layer 8. Multimedia application 9. Quality of service 10. Network security
Teaching methods:	Theoretical component focused on oral presentations and intuitive methods supported by digital contents. Practical component based on oral

	presentations, discussion and resolution of practical exercises and case studies.
Grading methods:	<ul style="list-style-type: none"> • Project (40%): Groups of 3 students; 3 phases evaluation (Intermediate deliverable with feedback; Final deliverable; Presentation / discussion). Minimum mark: 8.5 • Individual written exam(60%). Minimum mark: 8.5 <p>Group project and individual written exam grades are rounded to tenths Final mark = 0.4 (Project mark) + 0.6 (Written exam mark)</p>
Bibliography:	<ul style="list-style-type: none"> • Computer Networking: A Top Down Approach , 5th edition, Jim Kurose, Keith Ross Addison-Wesley, April 2009. • Monteiro, Edmundo; Boavida , Fernando (2000). Engenharia de Redes Informáticas, FCA, ISBN: 972-722-203-x. • Tannenbaum, Andrew S. (2002). Computer Networks (4th Edition), Prentice Hall PTR, ISBN: 0130661023.