

## Course Unit Description - (RINTE)

(Intelligent Networks and Services)

(Mestrado em Engenharia Electrotécnica e de Computadores)

Academic year: 2009/2010



### Subject group: Electrónica e Telecomunicações

	Semestral	Compulsory	
Mode of study	Diurno	Hours/Week	T-Teórica 2
Year	1 <sup>o</sup>		PL-Prática-Laboratorial 2
Semester	1 <sup>o</sup>		OT-Orientação Tutorial 1

ECTS 6

### Objectives

- 1) Learn the concepts involving the development of
  - Web applications
  - Web agents
  - Web services
- 2) Study, analysis and discussion of standard cases and examples
- 3) Development of
  - Web applications
  - Web agents
  - Web services

### Course Contents

- 0 Background
- 0.1 Interaction with HTTP servers
- 0.2 Standard client/server distributed applications
- 1 Web applications
- 1.1 Support technologies
- 1.2 Database Servers
- 1.2.1 Definition of a database structure
- 1.2.2 Remote access and interaction with databases
- 1.2 Development of Web applications with Servlets e JSP
- 2 Automated Web clients
- 2.1 Value-added software agents.
- 2.1.1 Desktop and Intranet agents
- 2.1.2 Personal assistant agents
- 2.1.3 Notifier agents
- 2.1.4 Internet agents
- 2.1.5 Info filtering and searching agents
- 2.1.6 E-commerce agents
- 3 Web services
- 3.1 Introduction to Web Services
- 3.2 XML
- 3.3 WSDL, SOAP e UDDI
- 3.4 Development of Web services
- 3.5 Registration of and interaction with Web services

### Recommended reading

- Java Network Programming, Merlin Hughes, Michael Shoffner, Derek Hammer, 2nd Edition, Manning, 1999.
- Java, How to Program, H. M. Deitel e P. J. Deitel, Prentice Hall, 1997.
- Agent SourceBook, a complete guide to Desktop, Internet and Intranet Agents, Alper Caglayan and Colin Harrison, John Wiley & Sons, 1997.
- Intelligent Software Agents, Richard Murch, Tony Johnson, Prentice Hall, 1998.
- Agentes de Software na Internet, Alberto Silva, Edições Centro Atlântico, 1999.
- The Complete Java 2 Training Course, H. M. Deitel e P. J. Deitel, Prentice Hall, 1999.
- Special Edition Using Java, Que Series, Joseph Weber, Macmillan Publishing, 1999.
- Understanding SQL and Java Together: a Guide to SQLJ, JDBC and Related Technologies, Jim Melton and Andrew Eisenberg, Morgan Kaufmann Publishers, 2000.
- Client/Server Programming with Java and CORBA, Second Edition, Dan Harkey (Editor), Robert Orfali, 1998.
- Java e XML, Solutions to Real-World Problems, Brett McLaughlin, O`Reilly, 2nd Edition, 2001.
- JavaServerPages, Help for Server-Side Java Developers, Hans Bergsten, 3rd Edition, O`Reilly, 2003.
- Building Web Services with Java, Making Sense of XML, SOAP, WSDL and UDDI, Steve Graham, Simeon Simeonov, Toufic Boubez, Doug Davis, Glen Daniels, Yuichi Nakamura, Ryo Neyama, SAMS, 2002.
- JavaServer Faces, Building Web-based User Interfaces, Hans Bergsten, O`Reilly, 2004.

### Teaching Methods

The course is based on the presentation of concepts, analysis of case studies and on the design, implementation, presentation and discussion of small projects.

**Assessment methods**

Curricular activities - 50 %  
Final written examination - 50 %

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<b>Lecturer:</b>	Maria Benedita Campos Neves Malheiro (MBM)