

## COURSE PRESENTATION FORM

**COURSE NAME** Infrastructures for Open Service Oriented Architectures  
**COURSE CODE** 72014  
**LECTURER** Francesco Di Cerbo  
**TEACHING ASSISTANT**  
**TEACHING LANGUAGE** English  
**CREDIT POINTS** 4  
**LECTURE HOURS**  
**EXERCISE HOURS**  
**OFFICE HOURS** During the lecture time span: Wednesdays, from 17:00 to 18:00, and  
**LECTURER** anytime by previous email or verbal appointment. Office 3.05, Via della  
Mostra 4, Bolzano-Bozen.

**OFFICE HOURS**  
**TEACHING ASSISTANT**  
**PREREQUISITES**

No mandatory prerequisites, the course is suggested to students with a background in Internet Technologies and Web Services

**OBJECTIVES**

Service Oriented Computing, and Service Oriented Architecture have become embraced by organizations (big companies and SMEs) for their beneficial effect for the IT strategical management. Among other important advantages, SOC and SOA help in providing better alignment between business and IT for instance increasing agility for responding to demands in the marketplace. This makes SOC and SOA a crucial asset for developers and managers .

The objective of the course is to give students an understanding of SOC, and to enable them to create SOAs using a suite of open source products that are market leaders.

**SYLLABUS**

- Service Oriented Computing and Architecture (SOC and SOA)
- Web Services Standards (WS-Security, WS-ReliableMessaging,...)
- Spring Framework
- EJB
- SOC key features: governance, service contracts, Web services platforms, service-oriented development
- History and fundamentals of SOA.
- Understanding the Service Component Architecture (SCA)
- Business Process Management (BPM)
- Enterprise Service Bus (ESB)

<b>TEACHING FORMAT</b>	Frontal lectures, labs, final project.
<b>ASSESSMENT</b>	oral examination (50%), Project (50%) <b>Attention: students who did not attend the course have to contact the lecturer 20 days before the exam in order to receive their assignments</b>
<b>READING LIST</b>	<ul style="list-style-type: none"> <li>• Open Source SOA, Jeff Davis, Manning Publications, ISBN: 1933988541</li> <li>• Understanding SOA with Web Services, Eric Newcomer and Greg Lomow, Addison-Wesley Professional, ISBN 0321180860</li> </ul>
<b>SOFTWARE USED</b>	Server-side: <ul style="list-style-type: none"> <li>• Apache Axis v2</li> <li>• Spring Framework</li> <li>• JEE</li> <li>• JBPM</li> <li>• Apache Synapse</li> </ul> Client-side: <ul style="list-style-type: none"> <li>• Eclipse</li> </ul>
<b>LEARNING OUTCOME</b>	The students shall learn how to design effective orchestration and compositions of services using standard web technologies and tools.
<b>COURSE PAGE</b>	<a href="http://teaching.case.unibz.it">http://teaching.case.unibz.it</a>