

Principles of Cloud Computing

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Timetable: 20 hours of class lectures, plus 1.5 days of personal study. First lecture on July 14, 2014, 14:30 (dates already fixed, see the calendar), Torre Archimede, Room 2BC/30.

Course requirements: basics in concurrency, networks and distributed systems.

Examination and grading: students will be assigned a practical exercise and will be referred to the reference technology to use in carrying that task out. The practical will allow the students to get a taste of the principal architectural characteristics required to take benefit of the Cloud, notably elasticity, multi-level load balancing and transparent dispatching.

SSD: INF01

Aim: to provide the students with some initial yet articulate insight into the architectural principles of the Cloud Computing stack and some hands-on experience on the fundamentals of designing an application for the Cloud.

Course contents:

- a traversal of the Cloud stack with a historical and technological perspective of where its constituents came about
- zooming into the each stack layer in a bottom-up fashion
- an executive review of relevant Cloud technology
- illustration of key principles of *application design for the Cloud*, and hands-on experience with a practical exercise.