- Cloud Computing Reference Model
  - IaaS, PaaS, SaaS
  - XaaS – Everything as a service

IaaS: Defining Your Infrastructure on Demand
- Infrastructure Provisioning
- Compute on Demand
- Storage on Demand
- Virtual Networking

SaaS: Applications as Service Compositions in the Cloud
- A case study for example "Google Docs"
- Characteristics and Advantages of SaaS
- Service Marketplace

PaaS: Developing Elastically Scalable Applications
- Cloud Computing Platforms
- Application Architecture and Composition
- IBM BlueMix, CloudFoundry, Microsoft Azure, Heroku, AppEngine

Engineering Applications in the Cloud
- From Concept to Implementation
- Architecture and Design
- Service Selection
- Development Operations

Cloud Computing and the Industry
- Economic Primer
- Legal Implications
- Standardisation
- Open Source Software
- Security

Assessment:
Students will be advised of all matters relating to summative assessment at the outset of the course. Overall course grades will represent a balanced assessment of achievement in relation to all stated learning outcomes.

Weighting	Nature of assessment	Learning outcomes
40%	Test(s)	1, 2, 3
60%	Project: Develop and demonstrate a Cloud-based application. This includes progress and final report(s) as well as presentation(s).	1, 2, 3, 4

Learning and teaching approaches:
Students and lecturers discuss the concepts of virtualization technologies along with the architectural models of cloud computing. Students and academic staff present prominent cloud computing technologies that are available in the marketplace.

Students investigate software engineering methods used for designing, developing, and implementing Cloud-based software solutions in group discussions facilitated by expert academic and industry guests.

Various application case studies from domains such as science,