

**Course size** (nominal values; actual values may depend on programme)

**Credits** 6.0      **Study time** 180 h      **Contact hrs** 60.0 h

**Course offerings and teaching methods in academic year 2016-2017**

A (semester 2)	seminar: practical PC room classes	30.0 h
	lecture	30.0 h

**Lecturers in academic year 2016-2017**

Lambert, Peter	TW06	lecturer-in-charge
Verborgh, Ruben	TW06	co-lecturer

**Offered in the following programmes in 2016-2017**

	crdts	offering
<a href="#">Bachelor of Science in Computer Science</a>	6	A

**Teaching languages**

Dutch

**Keywords**

Security, capacity planning, standarization, markup languages, metadata, web technology, semantic web

**Position of the course**

The main purpose of this course is to let the students familiarize with the principles of modern web and internet applications. Moreover, the students will gain some experience with setting up web and internet applications.

**Contents**

- 1 Architecture and infrastructure of web applications
- 2 Basic technology, hypermedia and markup languages
- 3 Interactivity - integration with back-office applications
- 4 Implementation - overview &
- 5 Concrete examples (Java and .net)
- 6 Performance and capacity planning of web applications
- 7 Security and legal aspects (cryptography, DRM & applications)
- 8 Technologies for the semantic web
- 9 Web applications - use cases

**Initial competences**

Programming in a high-level programming language; basic knowledge computer networks

**Final competences**

- 1 To know and being able to set up architectures and infrastructure for internet applications.
- 2 To know and being able to apply basic technology, hypermedia and markup languages.
- 3 To know and being able to apply principles of interactivity.
- 4 Performance and capacity planning - to know and being able to apply basic models.
- 5 To know some case studies.
- 6 Security and legal aspects: to know principles of cryptography + applications.
- 7 To know and being able to apply the basic technologies for the semantic web.
- 8 Some experience with setting up internet applications.

**Conditions for credit contract**

Access to this course unit via a credit contract is determined after successful competences

assessment

**Conditions for exam contract**

This course unit cannot be taken via an exam contract

**Teaching methods**

Lecture, seminar: practical PC room classes

**Learning materials and price**

Annotated PowerPoint presentations

**References**

**Course content-related study coaching**

Coaching during computer-assisted problem solving  
Contact with lecturer and coaches of exercises/project work (via e-mail and personally)

**Evaluation methods**

end-of-term evaluation and continuous assessment

**Examination methods in case of periodic evaluation during the first examination period**

Oral examination

**Examination methods in case of periodic evaluation during the second examination period**

Oral examination

**Examination methods in case of permanent evaluation**

Assignment, skills test

**Possibilities of retake in case of permanent evaluation**

examination during the second examination period is not possible

**Extra information on the examination methods**

Non-periodical evaluation (during semester): graded lab sessions + project work

**Calculation of the examination mark**

Global score = 50% non-periodical evaluation (score obtained during semester) + 50% periodical evaluation (score obtained during examination period). Additional requirement for passing: obtain 7/20 for each part (i.e. permanent examination during semester & examination during examination period). For the second examination chance, the student should not retake the non-periodical evaluation. The score for the second examination chance is the maximum of the score for the periodical evaluation and the score obtained following the same calculation method as for the first examination chance.