COURSE SYLLABUS
Next Generation Web, 6 credits

Nästa generations webb, 6 högskolepoäng

Course Code:	TNWS28	**Education Cycle:**	Second-cycle level
Confirmed by:	Dean Oct 12, 2017	**Disciplinary domain:**	Technology (95%) and social sciences (5%)
Valid From:	Jan 1, 2018	**Subject group:**	DT1
Version:	1	**Specialised in:**	A1F
Reg number:	JTH 2017/3949-313	**Main field of study:**	Informatics

Intended Learning Outcomes (ILO)

After a successful course, the student shall:

Knowledge and understanding
- demonstatrate an understanding of principles, methods and techniques of next generation web
- demonstrate comprehension of metadata, semantics of information and resources on the web, and personalization of web applications
- demonstrate an understanding of the impact of social sciences on user-centered design in web applications (e.g., recommender systems)
- display knowledge of research trends in the areas relevant for next generation web

Skills and abilities
- demonstrate the ability to apply intelligent mechanisms to gathering and processing the data on the web
- demonstrate skills of design and implementation of prototypes of web applications with semantic and personalization technologies
- demonstrate the ability to analyze and understand theories and findings from social sciences to inform the user-centered design in web applications

Judgement and approach
- demonstrate the ability to choose applicable methods and tools for more advanced and intelligent web applications

Contents

Technologies from many different areas, such as semantic web, data-mining, machine learning, recommendation agents, and artificial intelligence are driving the next generation of web. These technologies emphasize machine-facilitated understanding of information on the web to provide a more productive and intuitive user experience. In this course students will be introduced to the vision of next generation web, as well as, the languages and tools useful for next generation web development. They will understand how the techniques revolutionize the web and its applications.

Type of instruction

The course consists of lectures, assignment and laboratory work.

The teaching is conducted in English.

Prerequisites

Passed courses 180 credits in first cycle, at least 90 credits within the major subject in Informatics, Computer Science, Computer Engineering, Interaction Design (with relevant courses in web programming), and completed course User Experience Design 6 credits (or equivalent). Proof of English proficiency is required (or the equivalent).

Examination and grades

The course is graded 5,4,3 or Fail.

Registration of examination:

Name of the Test	Value	Grading
Assignments	3 credits	5/4/3/U
Laboratory work	3 credits	5/4/3/U

Course literature

Literature
Title: Linked Data: Structured Data on the Web
Authors: David Wood, Marsha Zaidman and Luke Ruth
Publisher: Manning Publications

The literature list for the course will be provided one month before the course starts.