COURSE SYLLABUS
Wireless Networks, 9 credits

Trådlösa nätverk, 9 högskolepoäng

Course Code:	TTNK15	**Education Cycle:**	First-cycle level
Confirmed by:	Dean Nov 19, 2014	**Disciplinary domain:**	Technology (95%) and social sciences (5%)
Revised by:	Director of Education Mar 24, 2017		
Valid From:	Aug 1, 2017	**Subject group:**	DT1
Version:	3	**Specialised in:**	G1F
Reg number:	JTH 2017/1338-313	**Main field of study:**	Computer Engineering

Intended Learning Outcomes (ILO)

On completion of the course, the student should

Knowledge and understanding
- Demonstrate knowledge and understanding of the physical characteristics of radio waves and their impact on data communication
- Demonstrate knowledge and understanding of wireless network fundamentals regarding protocols and standards

Skills and abilities
- Demonstrate the ability to plan and operate network environments with wireless networks
- Demonstrate the ability to build wireless networks for professional use

Judgement and approach
- Demonstrate the ability to evaluate existing wireless solutions and propose improvements

Contents

The course includes the configuration of wireless networks, how radio waves can be used for communication and how their physical properties influence the planning of wireless networks. The course also addresses how clients are configured for the wireless networks, how they can be physically moved without losing contact with the network, and how to secure and troubleshoot wireless networks. The course includes the following topics:
- Introduction to wireless networks
- Installation of wireless access points and controller units
- Installing wireless clients
- Basic wireless network security
- Maintenance and troubleshooting of wireless networks

Type of instruction

Lectures and laboratory work.

The teaching is conducted in English.

Prerequisites

General entry requirements and completed course Routing and switching technology, 9 credits (or the equivalent).

Examination and grades

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

Registration of examination:

Name of the Test	Value	Grading
Examination[1]	5 credits	5/4/3/U
Laboratory work	4 credits	U/G

[1] Determines the final grade of the course, which is issued only when all course units have been passed.

Other information

The prerequisite Routing and switching course requires that you:

- are competent in using and administering Cisco routers and switches
- have a solid knowledge of DHCP, 802.1q trunks and VLANs, and subnetting

Course literature

The literature is preliminary until one month before the course starts.

Coleman, D. & Wescott, D. (2014). Exam CWNA-106. CWNA Certified Wireless Network Administrator Official Study Guide, 4th edition. Indianapolis: JohnWiley & Sons. ISBN 9781118893708.