Telecommunication Systems

Programme course

6 credits

Telekommunikationssystem

TNK040

Valid from: 2017 Spring semester

Determined by
Board of Studies for Industrial Engineering and Logistics

Date determined
2017-01-25

Offered for the last time
Spring semester 2024

Replaced by
TNK134

Main field of study
Electrical Engineering

Course level
First cycle

Advancement level
G1N

Course offered for
- Communications, Transport and Infrastructure, M Sc in Engineering

Entry requirements
Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

Intended learning outcomes
The aim is that the students after completed course should be able to:
- Identify the most important components and functions in a communication system
- Explain fundamental functions and concepts within digital communications
- Describe differences in characteristics for different communication systems
- Compare and explain application areas for different types of communication systems
- Associate terms, components, technologies and functions to the correct layer in the OSI and TCP/IP model
- Argue for the possibility of development for different communication technologies

Course content
The course presents general topics within the field of telecommunications, e.g. basic functions, system design aspects, and performance characteristics.

Teaching and working methods
Lectures, exercises and labs/projects.

Examination

LAB1	Laboratory Work	1.5 credits	U, G
TEN1	Written Examination	4.5 credits	U, 3, 4, 5

Grades

Four-grade scale, LiU, U, 3, 4, 5

Other information

Supplementary courses:
Signals and systems, Digital communications, Data communications, Mobile communications, Wireless communications systems

Department

Institutionen för teknik och naturvetenskap

Director of Studies or equivalent

Erik Bergfeldt

Examiner

Erik Bergfeldt

Education components

Preliminary scheduled hours: 48 h
Recommended self-study hours: 112 h

Course literature

Data and Computer Communications av William Stallings samt kompletterande material

Common rules

Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at http://styrdokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.