

Air Traffic and Air Transportation

Programme course

6 credits

Flygtrafik och flygtransporter

TNFL01

Valid from: 2017 Spring semester

Determined by
Board of Studies for Industrial
Engineering and Logistics

Date determined
2017-01-25

Main field of study

Logistics

Course level

First cycle

Advancement level

G1X

Course offered for

- Air Transportation and Logistics, Bachelor's Programme

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 objective of the course is to provide an overview of the air transport area, and to give the students an ability to identify and understand problems that may appear in this area. The students will after the course have an understanding of how air traffic is handled by airlines, aviation authorities, air navigation services and airports. The students will also understand how these different actors interact with each other. After the course the students should be able to:

- Describe the impact relevant national and international organizations have on air traffic and air transportation, as well as describe the interaction between these organizations
- Explain how the market for air transportation works and how it is regulated
- Demonstrate the construction of the air traffic management system in Sweden and Europe and the capacity problem that comes as an effect of this construction
- Discuss the role of the airport in the global air transportation system
- Characterize the typical structure of an airline, regarding financing, organization, resources and market position and direction
- Explain how the different actors in the air transportation system plan their operations, and how this planning affects the operations of the other actors

Course content

- Organizations in the air transportation system
- The air transport market
- The air navigation service
- The air traffic management system in Europe
- The airport
- The airlines
- Planning of air traffic

Teaching and working methods

The course consists of lectures and seminars. The lectures give the theoretical background. During the seminars, assignments and case studies are discussed. A study visit is also performed.

Examination

UPG1	Hand-in Assignments	2 credits	U, G
TEN1	Written examination	4 credits	U, 3, 4, 5

Grades

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

Department

Institutionen för teknik och naturvetenskap

Director of Studies or equivalent

Erik Bergfeldt

Examiner

Christiane Schmidt

Education components

Preliminary scheduled hours: 78 h

Recommended self-study hours: 82 h

Course literature

Additional literature

Books

Ahmed Abdelghany och Khaled Abdelghany, *Introduction to airline management, Introduction to airline management*

Åkerlind, Olle, Örtlund, Håkan, (2011) *The ABZ of flight operations*
ISBN: 9789198009309

Molkom : Håkan Örtlund produktion, cop. 2011

Belobaba, Peter, Odoni, Amedeo R., Barnhart, Cynthia, Bamber, Greg J., (2016)
The global airline industry. [Elektronisk resurs] Second edition. Chichester,
England : Wiley, 2016.

ISBN: 9781118881170, 9781118881149

The main book for the course.

Lindh A, Andersson T, Värbrand P and Yuan D, *Airport Logistics – Integration of ATM and ground processes.*

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://stydokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.