

35E00750 Logistics Systems and Analytics

SYLLABUS

Version (20.8.2019)

Instructor's contact information	Course information
Markku Kuula Markku.Kuula@aalto.fi H5:27 By agreement https://people.aalto.fi/index.html?language=english#markku_kuula Sadaat Ali Yawar H5:28 sadaat.aliyawar@aalto.fi	M.Sc.(Econ), Information and Service Management programme; advanced specialization studies. Period I (2018-2019) Location: R038/V001 JENNY JA ANTTI WIHURIN RAHASTO English https://mycourses.aalto.fi/course/view.php?id=3756

1. OVERVIEW

The course topics include warehousing technologies, automated warehousing, air, train and truck logistics/transportation, and port and terminal operations as well as systems from technology perspective. The course also deals with infrastructure and transportation issues from a policy perspective and it further addresses issues related to digital logistics and analytics.

2. PREREQUISITES

Thorough knowledge in Tuotantotalous (35A00110), Tuotantotalouden perusteet (35A00310), Operations Management (35A00210), or corresponding skills acquired elsewhere highly recommended.

Recommended 35C04000 Global Logistics and Distribution Networks
Recommended also for Logistics PhD-students.

3. LEARNING OUTCOMES

After the course, you will know how the logistics system operates in various sectors and how information systems and analytics provide a competitive advantage for different companies. The course gives you the capability to work in a variety of management, expert and analytical tasks in logistics systems and you learn to understand different warehousing technologies, infrastructure solutions as well as air, sea, rail and road transportation operations. These issues are considered from both the passenger and freight points of view. In addition, you understand how to apply digital logistics tools to in a business.

4. ASSESSMENT AND GRADING

1. Lectures and exercises 36 h, 2. Assignments 60 %, and 3. Exam 40%

5. ASSIGNMENTS

Four obligatory cases:

1. AMAZON'S DRONE DELIVERIES: AN OPERATIONAL DILEMMA?
2. CAPACENT
3. LYFT VS UBER: IS LYFT BEING 'WOKE' ENOUGH TO BEAT UBER?
4. ZAPPOS.COM, INC, AND THE WAREHOUSE DECISION

6. READINGS

Collection of articles and reports + Lecture materia.

7. PRELIMINARY SCHEDULE

Logistics Systems and Analytics (35E00750)
Aalto University School of Business - Department of Information and Service Management
Lectures: Mondays and Wednesdays (R038/V001 JENNY JA ANTTI WIHURIN RAHASTO) 9.15-12.00

9.9. Mon	Introduction to the course, introduction to warehousing Warehousing: Warehousing technologies, automated warehouses etc.		Lecture 1
11.9. Wed	Infrastructure and transportation from a policy perspective	Case: ZAPPOS.COM, INC	Lecture 2
16.9. Mon	Maritime Transport – Port Operations Case Finnlines		Lecture 3
18.9. Wed	Global Trade in Goods - Customs role as a promoter and guardian of trade in goods – Visitor from Finnish Customs		Lecture 4
23.9. Mon	Public/Human transportation	Case: LYFT VS UBER: IS LYFT BEING 'WOKE' ENOUGH TO BEAT UBER?	Lecture 5
25.9. Wed	Truck Transport – Case DB Schenker		Lecture 6
30.9. Mon	Digital logistics: Iot, AI, Big data, Blockchains etc.		Lecture 7
2.10. Wed	Air transportation – Case Finnair		Lecture 8
7.10. Mon	Robotics, Last Mile (e.g. Drone and 3D printing)	Case: AMAZON'S DRONE DELIVERIES: AN OPERATIONAL DILEMMA?	Lecture 9
9.10. Wed	Profitability- Inventory management		Lecture 10
14.10. Mon	Data analytics	Case: CAPACENT	Lecture 11
16.10. Wed	Service operations planning	Course Wrap-up	Lecture 12

8. COURSE WORKLOAD

Contact teaching	36 h
Independent work	121 h
Exam	3 h
Total	160 h (6 op)

9. ETHICAL RULES

Aalto University Code of Academic Integrity and Handling Thereof>

<https://into.aalto.fi/pages/viewpage.action?pageId=3772443>

10. OTHER ISSUES

- Registration to course: WEB-OODI
- Changes to the schedule are possible!