

## **Session 1: Course Introduction** 35E00750 Logistics Systems and Analytics

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Assistant Professor of Operations Management University of Groningen https://www.rug.nl/staff/tri.tran/

## **Structure**

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# **1. Teaching staff**

## Teaching staff (1/2) Tri Tran

Assistant Professor of Operations Management

#### Background:

- B.Sc. in Business Technology, Aalto University
- M.Sc. in Management Science/Operations Research, Aalto University
- CEMS Master's in International Management, Ivey Business School
- D.Sc. in Operations Management, Aalto University

#### **Teaching activities:**

- Process Analysis and Management
- Logistics & Supply Chain Operations
- Strategic Supply Chain Management
- Research Methods for SCM / Survey Research
- Consulting projects

#### **Research:**

- Technology and Innovation Management in SCM
- Risk-seeking decision-making under uncertainty





university of groningen

faculty of economics and business

## Teaching staff (2/2) Teemu Valminen

Teemu is a dynamic industry expert renowned for his practical research knowledge on ecosystems, notably in technology and innovation management context. With a track record in diverse corporate functions, consultancy work, and interorganizational collaboration, he has played important role in driving organizational transformations. Teemu has been instrumental in preparing multiple successful EU grant project preparations aimed at sustainability, such as BalticSeaH2 Hydrogen Valley and ELECTRA for decarbonizing the cement industry. His collaborative research efforts with leading Finnish scholars underscore his commitment to bridge academia and practice by advancing knowledge on ecosystems and generation of real-world applications.

#### Meet Our Faculty Video >>



Industry Expert Business developer

Doctoral candidate MSc (Econ) Aalto University School of Business



# 2. Course structure



# **2.1. General information**

## **Course Information**

### **Department of Information and Service Management**

- Management Science (Business Analytics)
- Information Systems Science
- Logistics (Supply Chain Management)

#### Master's elective program (2023-2024)

No prerequisites are required

The goal of the course is to provide a better understanding of business logistics with a focus on the combination of strategy and analytics in the context of supply chain



## **Learning outcomes**

- 1. The course is intended to provide the student with an understanding of various management, expert, and analytical **tasks in logistics systems** in the context of **supply chain**
- 2. After the course, the students are expected to learn how the logistics system operates in a supply chain, and how those systems provide a competitive advantage for companies
- 3. The student will also learn about **different issues** in global logistics and supply chain networks
- 4. Besides the theoretical concepts, the course gives the students a **basic knowledge** of analytics methods and techniques that they can apply to various logistics planning and design



## **Course contents**

#### Part 1. Background

- 1. Understanding supply chains
- 2. Achieving supply chain fit
- 3. Mathematical programming for Logistics & SCM
- 4. Guest lecture: Janne Kilpua

#### Part 2. Transportation

- 5. Urban logistics
- 6. Vehicle routing problems

## Part 3. Facilities

- 7. Warehousing technologies
- 8. Guest lecture: Vesa Hämetvaara (Konecranes)
- 9. Facility location problems

#### Part 4. Data

- 10. Digital logistics
- 11. Logistical drivers and metrics



## **Course materials**

All course materials will be on MyCourses

- Lecture slides
- Articles
- Additional reading materials





# 2.2. Assignments

## Grading

# Exam: Assignments Individual assignments Supply chain fit Lyft vs. Uber Group assignments

Group assignments30%• Zappo.com15%

40%

60%

30%

15%

15%

 The Fresh Connection simulation and reflection 15%

#### Notes:

- Submission for other assignments is via "Assignments"
  - Every beginning 24h late, -1% (point) penalty
    - (0;24] late: -1%
    - (24;48] hours late: -2%
    - Etc.
- +1% extra point available for those who answer the course feedback



## **Brief assignment instructions**

- Detailed instructions for each assignment are available in "Assignments"
- Assignments are rated on a 15-point scale
- More details about the case assignments can be found in the slide deck "General instructions for case reports"

## In the title slide of the individual report

- Title of the assignment
- Name
- Student number
- Email address

#### In the title slide of the group report

- Title of the assignment
- Group number (e.g., Group 1)
- All member names
- Student numbers
- Email addresses



## **General assessment**

Grade	Description of assessment				
< 100% (full marks)	An outstanding piece of work with, if any, almost correct analytical solutions. Effectively utilize learnings (theories or concepts) from the course within the case context.				
> 80%	Excellent work, and ideas expressed clearly with, if any, most correct analytical solutions. Innovative and effective application of learnings from the course to the assignment questions.				
> 60%	Makes a good attempt to apply learnings from the course to the assignment. If any, many correct analytical solutions.				
> 40%	A fair piece of work with some evidence of application of learnings and, if any, correct analytical solutions.				
> 20%	Poorly developed piece of work with, if any, hardly correct analytical solutions. Only minimal application of learnings from the course.				
0%	Case not submitted, or the solution bears no relevance to the assignment.				



## **General criteria**

#### Full or part of the assignment solutions are discussion-based

#### For writing, consider the following three:

- Reader focus (i.e., reader friendliness)
- Content development
- Language

For more details, please see the next slide. A scale of 5 represents full marks (100%)



#### **Business writing rubric**

#### Aalto University School of Business

	0	1-2	3	4	5
Reader focus	The writing is not suitable for the context, lacks a reader focus and / or much of the content is unsuitable for the given objective. Audience composition, knowledge, needs and concerns, attitude and motivation are overlooked.	Some of the content is context- specific, reader-focused and in line with the overall objective. However, key aspects such as audience composition, knowledge, needs and concerns, attitude and motivation are largely overlooked.	Content is to a large degree context- specific, suitable for the readership and aligned with the communication objective. However, there may be some information which fails to take into consideration audience composition, knowledge, needs and concerns, attitude or motivation.	Content is context-specific (internal and external use), and mostly appropriate for the reader and the communication objective. Audience composition, knowledge, needs and concerns, attitude and motivation are all addressed.	Content is context-specific (internal and external use), appropriate for the reader and aligned with the communication objective. Audience composition, knowledge, needs and concerns, attitude and motivation are fully addressed.
Content development	The message is fragmented and there is no sense of a meaningful whole. Message requires rereading; many sections remain unclear. The text is difficult to read. Ideas are not divided into logical units and the central idea is unclear. No reader- friendly devices are used. The text fails to follow the conventions specific to a particular genre (e.g. press release). In persuasive writing, claims are unclear and unsubstantiated.	Although some passages hold together, there is little overall sense of a meaningful whole. Frequent rereading of passages may be necessary; some sections may still remain unclear. Little attention is paid to paragraphing and ideas are vague and lack appropriate support. Reader-friendly devices are not used. The text fails to follow the conventions specific to a particular genre (e.g. press release). In persuasive writing, claims may not be substantiated by suitable evidence.	Message forms an overall sense of meaning around a central idea and has a generally logical progression throughout. However, occasional rereading is necessary. Content is not always divided into clear logical units and the central idea may be inadequately developed. Reader-friendly devices are used to some extent. When necessary, the text mostly follows the conventions specific to a particular genre (e.g. press release). In persuasive writing, a number of the claims might lack solid, compelling evidence.	Message forms a meaningful whole to a very large degree and there is a controlling idea that is logically developed throughout the text. Rereading is rarely necessary. Content is divided into clear logical units and the idea is almost always sufficiently presented and adequately developed. Reader- friendly devices are used but they are not always as effective as they could be. When necessary, the text follows the conventions specific to a particular genre (e.g. press release). In persuasive writing, most claims are supported by solid, compelling evidence (both quantitative and qualitative) from relevant and respected sources.	Message forms a meaningful whole with a controlling idea that is logically developed throughout the text. Rereading is unnecessary, even when content is complex. Content is divided into clear logical units consisting of a central idea which is very well developed. Reader-friendly devices (headings, listing, bulleting) are used very effectively throughout the text. When necessary, the text follows the conventions specific to a particular genre (e.g. press release). In persuasive writing, claims are always supported by solid, compelling evidence (both quantitative and qualitative) from relevant and respected sources.
Language	The number and frequency of grammatical and vocabulary inaccuracies makes it difficult to understand the text. Inappropriate tone.	Meaning often unclear. Many grammatical and vocabulary inaccuracies. Tone frequently inappropriate for the given readership. The reader might be confused or offended by some of the language used.	Meaning might not always be clear. Some inappropriateness of style and tone. Frequent grammatical inaccuracies and vocabulary slips which may hamper understanding from time to time.	Competent handling of the language. To a large degree, conveys ideas with clarity and fluency. Almost no inappropriateness of style and tone. There may be some grammatical inaccuracies and vocabulary slips.	Confident handling of the language. Conveys ideas with clarity and fluency. Meaning always clear. Style and tone are ideal for the context and given readership. There may be some minor grammatical inaccuracies and vocabulary slips.

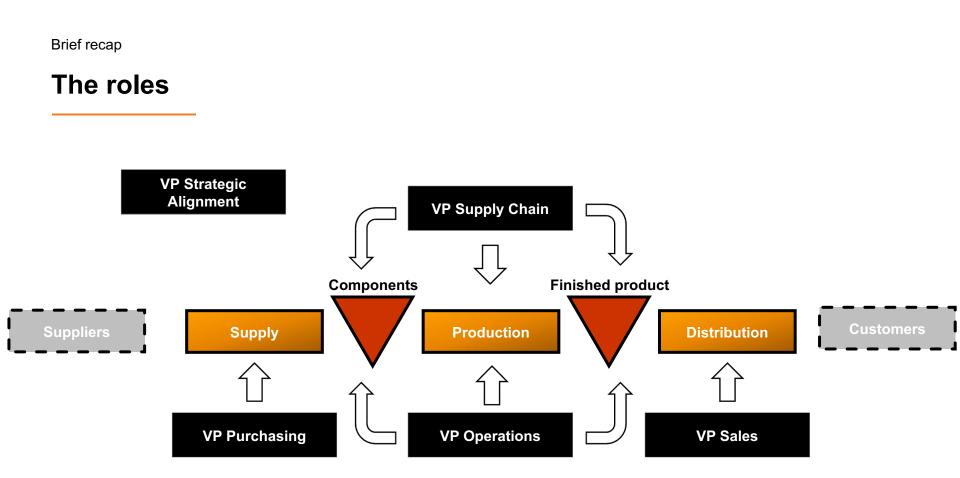


## 2.2.1. The Fresh Connection

## **The Fresh Connection Simulation**

- A relatively complex simulation that requires coordination between team members
- Four functional Vice Presidents (VPs)
  - VP of Sales
  - VP of Operations
  - VP of Supply Chain Management
  - VP of Purchasing
- One Strategic Alignment VP whose task is to align the decisions







## **The Fresh Connection Simulation**

- Code to the Look-around environment can be found in the Log-in instructional slides
- Please make sure to write down your log-in information





# 2.2.2. Group enrollment

## Choose your group (1/2)

- Please go to the MyCourses page to choose your group
  - $\circ$  Go to "course home page"  $\rightarrow$  "choose your group"
  - $\circ$  Select the available group for yourself
    - If there is a problem, please contact the course instructor
  - Every group must have 4-5 members
  - o Get in touch with your teammates ASAP



## Choose your group (2/2)

- Please find your group before the session on October 30, 2023
  - From now on, you can check the look-around environment of the simulation
  - During the session on October 30, 2023, we will deploy the simulation
    - The game cannot be re-deployed after this point
    - If you cannot attend the session on Oct 30, please make sure to arrange it in advance with your teammates (e.g., be available online or give them your log-in information)
- If you are not able to attend the sessions regularly, please inform your teammates before finalizing the team





# 2.3. Exam

## Exam

## • Date:

- On-campus exam
- Exam dates can be seen on Sisu
- 40% of course grade
- Attention: you need to score a minimum of 20 points (out of 40 points) to pass the exam, and therefore to pass the course!
  - 2 descriptive questions
  - 2 analytical questions (a basic calculator is allowed)
- Answering to the exam questions should be based on your learnings from the course



## **Examples of exam questions**

#### **Descriptive question**

- *Q*: *Discuss the role of transportation in facilitating supply chain performance*
- These kinds of questions can be combined as **one** descriptive question

## **Analytical question**

- Q: Where should the new plant be located? Analyze and discuss.
- Numerical information for the question will be given in the text or in a table
- These kinds of questions can be combined as **one** analytical question



## Contact

#### Course instructor: Tri M. Tran

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Office hours by appointment

Email: <u>tri.tran@aalto.fi</u> Preferred contact: Aalto email address

#### Teaching assistant: Teemu Valminen

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