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# Course offer Logistics Engineering

2020-2021

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## LOGISTICS ENGINEERING

Logistics Engineering is a broad and challenging programme. You learn how to manage and optimize various logistics streams in, for example physical distribution and human logistics. Physical distributions is all about worldwide transport, storage, planning and communication between different parties. Human logistics focuses on human streams, for example in health service or at a big event.

The Dutch Top Logistics Team's "Score to the top" report<sup>1</sup> defines logistics as the knowledge and skills needed to efficiently, sustainably and effectively plan, organize, execute and manage the goods and information flows and any associated financial flows from raw material to the end product". This includes return flows and reuse, both within one company and between companies. The term 'logistics' therefore includes Supply Chain Management, Logistics management and Transport management.

Perhaps more than in any other profession, a logistician needs to be able to act as both a specialist and a generalist. Specialist intervention is required for logisticians involved in a specific component within the chain, for example a production or distribution manager. A generalist perspective is required to ensure that the entire chain can operate as efficiently and effectively as possible. The young starting logistician is expected to be able to coordinate at least two links within the chain and be actively involved with all of a company's logistical development stages.



<https://wifinowglobal.com/news-and-blog/vck-logistics-becomes-wi-fi-now-official-logistics-partner-2019/>

Logisticians focus on the optimisation of processes. This should be understood in the broadest sense. The logistician needs to make decisions, by mutual consent, regarding the:

- (physical) set up of i.e. a warehouse, production operation, chain and/or network;
- management (the way in which processes are controlled);
- information provision;
- personal organization: the effective coordination between logistics and other functions within the organization.

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<sup>1</sup> National Logistics Platform higher vocational education, November 2019

These decisions are dependent on the logistical objectives posed. The logistical objectives concern the optimisation of customer service in conjunction with the overall costs.

Graduated logisticians are employed by (inter)national SMEs or large industrial and service companies. In the world of SMEs and non-profit organizations, such as governments and hospitals, a starting position at management level is no exception. Among the large organizations, the young logistician will advance to a management position through various specialised positions.

Specialist functions concern specific clusters of activities, such as purchasing, production, transport, warehousing and customer service. The professional field is very diverse due to the differences in the level of logistical development among companies. Depending on the size of a company, graduates can within a few years advance from employee or planner to for instance management and executive positions. This career growth applies to the various professional situations: supply chain, transport, warehouse and production. Additionally, there are other positions such as consultant, project staff member and manager and specialist in logistical ICT applications. Logistics professionals are also found in the logistics sector, industry and commerce. Finally, logisticians also find work in other sectors (professional situations) such as ICT, healthcare, government, banks and insurance companies.

#### COURSE OFFER ACADAMIC YEAR 2020-2021.

##### 1<sup>st</sup> Year: Fall semester (Quarter 1+2) Spring semester (Quarter3+4)

	Quarter 1		Quarter 2		Quarter 3		Quarter 4		
	The Transport specialist		The DC engineer		The Event organizer		The Purchasing and Operations manager		
Year 1	CU70102V1 The Transport specialist	5	CU70112V1 The DC engineer	5	CU70132V1 The Event organizer	5	CU70142V1 The Purchasing and Operations manager	2,5	
	CU70104V2 Introduction to international logistics	2,5	CU70114V1 Warehouses and DC's	2,5	CU70134V1 Human logistics 1 – Event logistics	2,5	CU70144V1 Purchasing management	2,5	
	CU70106V1 Intermodal transport	2,5	CU70116V1 Business & Information Systems INT	2,5	CU70136V1 Applied statistics for Logistics	2,5	CU70146V1 Operations management INT	2,5	
	CU70108V1 Logistics financial management 1	2,5	CU70118V1 Logistics financial management 2	2,5	CU70138V1 Organisation & management LE 1	2,5	CU70148V2 Workshops Excel & Simulation	2,5	
	CU70122V1 Personal development for study and profession LE 1				1,25	CU70152V1 Personal development for study and profession LE 2		1,25	
	CU70124V1 Applied mathematics for Logistics				2,5	CU70154V1 Research of logistical processes		2,5	
	CU70125V1 Logistics English 1				1,25	CU70155V1 Logistics English 2		1,25	

## 2<sup>nd</sup> Year: Fall semester (Quarter 5+6) Spring semester (Quarter 7+8)

	Quarter 5		Quarter 6		Quarter 7		Quarter 8	
	The Production planner		The International distribution manager		The Logistics project and change manager		The Supply chain manager	
Year 2	CU70202V1 Production planning & stock control	5	CU70206V1 Physical distribution	5	CU70213V1 The Logistics project & change manager	5	CU70221V1 The Supply chain manager	2,5
	CU70204V1 Maritime logistics and law	2,5	CU70208V1 Marketing and export management	2,5	CU70215V1 Project & change management	2,5	CU70223V1 Supply chain management INT	2,5
	CU22627V3 Logistics English 3	1,25	CU22628V3 Logistics English 4	1,25	CU70217V1 Management skills training	2,5	CU70225V1 Lean six sigma for logistics	2,5
					CU70219V1 Maritime reefer transport	2,5	CU70227V1 Smart logistics & Big data INT	2,5
							CU70229V1 Human logistics 2 – Care logistics	2,5
	CU70209V1 Two day internship S3 or CU70211V1 Logistics advice to a company S3			10	CU70230V1 Logistics English 5			2,5
	VCCU70285V1 HZ Personality LE1			1,25	VCCU70287V1 HZ Personality LE3			1,25
	VCCU70286V1 HZ Personality LE2			1,25	VCCU70288V1 HZ Personality LE4			1,25

## 4<sup>th</sup> Year Fall semester Specialization Supply Chain Management

When you already have an extensive logistical background it could be a possibility to choose for the specialization semester on Supply Chain Management. This year consists of the following (semester) courses.

- CU17009 Specialization Supply chain management (15 EC)
- CU05970 Logistics Information Systems (5 EC)
- CU15379 Management Competences Logistics (5 EC)
- CU19999 Sustainable Supply Chain Management (2,5 EC)
- CU15377 Preparation for the graduation phase Logistics (2.5 EC)\*

\* The course “preparation for graduation phase logistics gives students an in depth knowledge on developing a research proposal. This is according to the program standards on conducting research but can be very interesting if you have to conduct a research later on. Having a view on a graduation subject is important aspect to receive optimal revenues of this course.

Additional you can choose the courses below which are especially for exchange students.

- Dutch Culture & Language 2,5 EC
- Peer Project 1,25 EC

**We would like to emphasize that it is not possible to mix courses from different years.**

Course descriptions can be found [here](#).