

# Logistics

## Course catalogue Logistics Engineering (EN)

Year 2020-2021



DISCOVER YOUR WORLD

## Foreword

This course catalogue gives you an overview of your study programme. You will find the following content:

- the annual schedule, examination periods, holidays, etc;
- an overview of all the study components, including workload;
- learning objectives and content for all the study components;
- an overview of the competences;
- an explanation of the competences and the three levels.

### Teaching methods

In your study programme, you will be exposed to four teaching methods: projects, courses, training sessions, and mentoring.

- In the **projects/labs** you will work together with fellow students in a project group on a large professional assignment. You will acquire knowledge and learn to apply this knowledge in a professional context, operating as a professional in training. The lecturer will coach the groups of students as a project leader.
- In the **courses** you will acquire profession-relevant knowledge by attending lectures and actively working on assignments. The lecturer will have the role of teacher and expert supervisor.
- In the **training sessions** you will acquire skills. These sessions are held in smaller groups, in which the lecturer will act as instructor and expert.
- Your **mentor** will be your personal coach. He or she will keep track of your academic development. You will have regular contacts with your mentor.

### Years 1 and 2

The first year is called the propaedeutic phase and it consists of three trimesters of twelve weeks each. The trimesters are usually filled with 1 project and several courses and training sessions. Each academic year comprises sixty ECs study credits.

The main phase of the study programme will start in year 2. This year too consists of 3 trimesters of twelve weeks each. This year will further prepare you for the third and fourth years, which is when learning in practice will be an important component.

### Years 3 and 4

The third year of study consists of three trimesters. As a third-year student you will switch between working in practice and studying. Two out of the three trimesters you will be doing a work placement. During the other trimester you will attend classes.

You are to find a work placement yourself. Obviously, you will be supported in this process by the placement coordinator. More detailed information can be found in the placement handbook.

The fourth year consists of two semesters. The first semester will be your chosen minor. In the second semester you will work on a graduation project for an industry client. This project is also something that you need to acquire yourself. More detailed information can be found in the graduation handbook.

### TER

All relevant rules can be found in the Teaching and Examination Regulations (TER) 2020-2021. In the academic year of 2020-2021, a transitional arrangement will apply. This transitional arrangement will be announced after the board of examiners has approved and officially adopted this arrangement. The transitional arrangement will apply to students who started a project, a course, etc. last year, but have not yet completed it.

We wish you an enjoyable and successful year!

On behalf of the management team of Built Environment and Logistics.

Debbie Dermout – Director of Built Environment and Logistics

*This Course catalogue is part of the Teaching and Examination Regulations (TER) 2020-2021 Built Environment and Logistics.*



Jaarplanning IB 2020-2021												
Week	Year 1 class:		Year 2 class:		Year 3 class:		Year 4 regular class:		Year 4 not regular class:		Week	
	Monday	Friday									Monday	Friday
34	8/17/2020	8/21/2020	Summer holiday		Summer holiday		Summer holiday		Summer holiday		8/17/2020	8/21/2020
35	8/24/2020	8/28/2020	Intro college 27-08		Intro lecture		Summer holiday/delayed internship presentations		Exam August		8/24/2020	8/28/2020
36	8/31/2020	9/4/2020	Summer holiday		Summer holiday		Summer holiday		Summer holiday		8/31/2020	9/4/2020
37	9/7/2020	9/11/2020	Academic week 1		Academic week 1		Academic week 1		Academic week 1		9/7/2020	9/11/2020
38	9/14/2020	9/18/2020	Academic week 2		Academic week 2		Academic week 2		Academic week 2		9/14/2020	9/18/2020
39	9/21/2020	9/25/2020	Academic week 3		Academic week 3		Academic week 3		Academic week 3		9/21/2020	9/25/2020
40	9/28/2020	10/2/2020	Academic week 4		Academic week 4		Academic week 4		Academic week 4		9/28/2020	10/2/2020
41	10/9/2020	10/19/2020	Academic week 5		Academic week 5		Academic week 5		Academic week 5		10/9/2020	10/19/2020
42	10/12/2020	10/19/2020	Academic week 6		Academic week 6		Academic week 6		Academic week 6		10/12/2020	10/19/2020
43	10/19/2020	10/23/2020	Autumn Holidays		Autumn Holidays		Autumn Holidays		Autumn Holidays		10/19/2020	10/23/2020
44	10/26/2020	10/30/2020	Academic week 7		Academic week 7		Academic week 7		Academic week 7		10/26/2020	10/30/2020
45	11/2/2020	11/6/2020	Academic week 8		Academic week 8		Academic week 8		Academic week 8		11/2/2020	11/6/2020
46	11/9/2020	11/13/2020	Academic week 9		Academic week 9		Academic week 9		Academic week 9		11/9/2020	11/13/2020
47	11/16/2020	11/20/2020	Academic week 10		Academic week 10		Academic week 10		Academic week 10		11/16/2020	11/20/2020
48	11/23/2020	11/27/2020	Academic week 11/TEST WEEK		Academic week 11/TEST WEEK		Academic week 11 / TEST WEEK		Academic week 11 / TEST WEEK		11/23/2020	11/27/2020
49	11/30/2020	12/4/2020	Academic week 12/TEST WEEK		Academic week 12/TEST WEEK		Academic week 12		Academic week 12		11/30/2020	12/4/2020
50	12/7/2020	12/11/2020	Academic week 1		Academic week 1		Academic week 13		Academic week 13		12/7/2020	12/11/2020
51	12/14/2020	12/18/2020	Academic week 2	Register results	Academic week 2	Register results	Academic week 14	Register results minor	Academic week 14	Register results minor	12/14/2020	12/18/2020
52	12/21/2020	12/25/2020	Christmas Holidays		Christmas Holidays		Christmas Holidays		Christmas Holidays		12/21/2020	12/25/2020
53	12/28/2020	1/1/2021	Christmas Holidays		Christmas Holidays		Christmas Holidays		Christmas Holidays		12/28/2020	1/1/2021
1	1/4/2021	1/8/2021	Academic week 3	Register results	Academic week 3	Register results	Academic week 15		Academic week 15		1/4/2021	1/8/2021
2	1/11/2021	1/15/2021	Academic week 4		Academic week 4		Academic week 16 / RESIT WEEK		Academic week 16 / RESIT WEEK		1/11/2021	1/15/2021
3	1/18/2021	1/22/2021	Academic week 5	Results trim 1 /Yr 1	Academic week 5	Results trim 1 /Yr 2	Academic week 17 / project final		Academic week 17 / project final		1/18/2021	1/22/2021
4	1/25/2021	1/29/2021	Academic week 6	Results trim 1 /Yr 1	Academic week 6	Results trim 1 /Yr 2	Academic week 18 / project final		Academic week 18 / project final		1/25/2021	1/29/2021
5	2/1/2021	2/5/2021	Academic week 7	Results trim 1 /Yr 1	Academic week 7	Results trim 1 /Yr 2	Academic week 1 - June group		Academic week 1 - June group		2/1/2021	2/5/2021
6	2/8/2021	2/12/2021	Academic week 8		Academic week 8		Academic week 2 - June group		Academic week 2 - June group		2/8/2021	2/12/2021
7	2/15/2021	2/19/2021	Spring Break		Spring Break		Academic week 3 - June group		Academic week 3 - June group		2/15/2021	2/19/2021
8	2/22/2021	2/26/2021	Academic week 9		Academic week 9		Academic week 4 - June group		Academic week 4 - June group		2/22/2021	2/26/2021
9	3/1/2021	3/5/2021	Academic week 10		Academic week 10		Academic week 5 - June group		Academic week 5 - June group		3/1/2021	3/5/2021
10	3/8/2021	3/12/2021	Academic week 11/TEST WEEK		Academic week 11/TEST WEEK		Academic week 6 - June group		Academic week 6 - June group		3/8/2021	3/12/2021
11	3/15/2021	3/19/2021	Academic week 12/TEST WEEK		Academic week 12/TEST WEEK		Academic week 7 - June group		Academic week 7 - June group		3/15/2021	3/19/2021
12	3/22/2021	3/26/2021	Logistics in practice		International fieldtrip		Academic week 8 - June group		Academic week 8 - June group		3/22/2021	3/26/2021
13	3/29/2021	4/2/2021	Academic week 1		Academic week 1		Academic week 9 - June group		Academic week 9 - June group		3/29/2021	4/2/2021
14	4/5/2021	4/9/2021	Academic week 2		Academic week 2		Academic week 10 - June group		Academic week 10 - June group		4/5/2021	4/9/2021
15	4/12/2021	4/16/2021	Academic week 3	Register results	Academic week 3	Register results	Academic week 11 - June group		Academic week 11 - June group		4/12/2021	4/16/2021
16	4/19/2021	4/23/2021	Academic week 4	Register results	Academic week 4	Register results	Academic week 12 - June group		Academic week 12 - June group		4/19/2021	4/23/2021
17	4/26/2021	4/30/2021	Academic week 5		Academic week 5		Academic week 13 - June group		Academic week 13 - June group		4/26/2021	4/30/2021
18	5/3/2021	5/7/2021	May Holiday		May Holiday		Academic week 14 - June group		Academic week 14 - June group		5/3/2021	5/7/2021
19	5/10/2021	5/14/2021	Academic week 6	Results trim 2 /Yr 1	Academic week 6	Results trim 2 /Yr 2	Academic week 15 - June group		Academic week 15 - June group		5/10/2021	5/14/2021
20	5/17/2021	5/21/2021	Academic week 7	Results trim 2 /Yr 1	Academic week 7	Results trim 2 /Yr 2	Academic week 16 - June group		Academic week 16 - June group		5/17/2021	5/21/2021
21	5/24/2021	5/28/2021	Academic week 8	Results trim 2 /Yr 1	Academic week 8	Results trim 2 /Yr 2	Academic week 17 / hand-in		Academic week 17 / hand-in		5/24/2021	5/28/2021
22	5/31/2021	6/4/2021	Academic week 9		Academic week 9		Academic week 18 / preparation		Academic week 18 / preparation		5/31/2021	6/4/2021
23	6/7/2021	6/11/2021	Academic week 10		Academic week 10						6/7/2021	6/11/2021
24	6/14/2021	6/18/2021	Academic week 11/TEST WEEK		Academic week 11/TEST WEEK		Exam June		Exam June		6/14/2021	6/18/2021
25	6/21/2021	6/25/2021	Academic week 12/TEST WEEK	Register results	Academic week 12/TEST WEEK	Register results	Exam June		Exam June		6/21/2021	6/25/2021
26	6/28/2021	7/2/2021	Study week	Register results	Study week	Register results					6/28/2021	7/2/2021
27	7/5/2021	7/9/2021	RESIT WEEK		RESIT WEEK		Presentations		Presentations		7/5/2021	7/9/2021
28	7/12/2021	7/16/2021	Week for finalization		RESIT WEEK		Presentations		14/7 Graduation ceremony		7/12/2021	7/16/2021
29	7/19/2021	7/23/2021	Summer holiday		Summer holiday						7/19/2021	7/23/2021
30	7/26/2021	7/30/2021	Summer holiday		Summer holiday						7/26/2021	7/30/2021
31	8/2/2021	8/6/2021	Summer holiday		Summer holiday						8/2/2021	8/6/2021
32	8/9/2021	8/13/2021	Summer holiday		Summer holiday						8/9/2021	8/13/2021
33	8/16/2021	8/20/2021	Summer holiday		Summer holiday						8/16/2021	8/20/2021
34	8/23/2021	8/27/2021					Exam August				8/23/2021	8/27/2021
35	8/30/2021	9/3/2021	Introduction		Intro college		Internship 1				8/30/2021	9/3/2021
36	9/6/2021	9/10/2021	Academic week 1		Academic week 1		Internship 2				9/6/2021	9/10/2021

## International logistics engineering 2020 - 2021: year 1

### Trimester 1

Name	Osiris-code	ECTS	Page
Starting Project	BIP1.STARTPR-18P	4	10
Introduction into Logistics	BIP1.INTLOG-18C	3	11
Statistics	BIP1.STATIS-18C	3	12
Cross Cultural Management	BIP1.CROS-18C	3	13
Introduction into Economics	BIP1.INTRECO-18C	3	14
Excel	BIP1.EXCEL-18T	2	15
Mentoring 1	B1.MENTOR1-18	2	16
<b>Subtotal</b>		<b>20</b>	

### Trimester 2

Name	Osiris-code	ECTS	Page
Blokko	BIP1.BLOKKO-18P	5	18
Warehousing	BIP1.WHOUSE-18C	2	19
Inventory Management	BIP1.INV-18C	2	20
Mathematics	BIP1.MATHS-18C	3	21
Management Accounting	BIP1.MGTACC-18C	3	22
Service Operations Management	BIP1.SOM-18C	2	23
Professional English 1	BIP1.ENGPRO1-18C	3	24
<b>Subtotal</b>		<b>20</b>	

### Trimester 3

Name	Osiris-code	ECTS	Page
Warehousing	BIP1.WAREH-18P	6	26
Transport Management	BIP1.TRMGT-18C	3	27
Global Economics	BIP1.GLECO-18C	3	28
Basic Principles of Law	BIP1.LAW1-18C	2	29
Material Handling	BIP1.MATHAN-18C	3	30
Professional English 2	BIP1.ENGPRO2-18C	3	31
<b>Subtotal</b>		<b>20</b>	
<b>Total</b>		<b>60</b>	

## International logistics engineering 2020 - 2021: year 2

### Trimester 1

Name	Osiris-code	ECTS	Page
Intermodal Transport	BIP2.MULTI-18P	5	35
Operations Management	BIP2.COPMGT-18C	2	36
Business Process Management & ICT	BIP2.ICTLOG1-19C	3	37
Procurement Management	BIP2.CINKMG-18C	3	38
Professional Writing and Com. 1	BIP2.PCW1-19C	2	39
Management & Organisation	BIP2.MTORG-18C	2	40
Mentoring 2	B2.MENTOR2-18	3	41
<b>Subtotal</b>		<b>20</b>	

### Trimester 2

Name	Osiris-code	ECTS	Page
Aurora	BIP2.AURORA-18P	5	43
Production Management	BIP2.PRMA-18C	3	44
Physical Distribution & ICT	BIP2.ICT-18C	2	45
Research Methods	BIP2.MTO-18C	3	46
Financial Accounting & ABCosting	BIP2.FINACC-18C	2	47
Import & Export Management	BIP2.IMEXMT-18C	2	48
Professional Writing and Com. 2	BIP2.PCW2-19C	3	49
<b>Subtotal</b>		<b>20</b>	

### Trimester 3

Name	Osiris-code	ECTS	Page
External Project	BIP2.EXPRO-18P	5	51
Supply Chain Management	BIP2.SCM-18C	2	52
Trade & Transport Law	BIP2.HVRE-18C	3	53
Automation Technology	BIP2.AUTOM-18C	2	54
Operations Research	BIP2.COR-18C	3	55
Professional Writing and Com. 3	BIP2.PCW3-19C	3	56
Free elective 1	BIP2.FREE1-01 (LGEN)	1	57
Free elective 2	BIP2.FREE2-01 (LGEN)	1	58
<b>Subtotal</b>		<b>20</b>	

<b>Total</b>	<b>60</b>
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## International logistics engineering 2020 - 2021: year 3

### Trimester 1

Name	Osiris-code	ECTS	Page
Internship 1	BIP3.IS1-19	20	62
<b>Subtotal</b>		<b>20</b>	

### Trimester 2

Name	Osiris-code	ECTS	Page
Network Logistics	BIP3.NETLOG-18C	3	64
E-Logistics	BIP3.ELOG-18C	3	65
Entrepreneurship	BIP3.ENT-18C	3	66
Quality Management	BIP3.QUAMG-18C	3	67
Port Logistics	BIP3.PORTL-18C	3	68
Data Management & ICT	BIP3.ICTLOG2-19C	3	69
Simulation	BIP3.SIM-18C	2	70
<b>Subtotal</b>		<b>20</b>	

### Trimester 3

Name	Osiris-code	ECTS	Page
Internship 2	BIP3.IS2-19	20	72
<b>Subtotal</b>		<b>20</b>	
<b>Total</b>		<b>60</b>	

## International logistics engineering 2020 - 2021: year 4

### Semester 1

Name	Osiris-code	ECTS	Page
The Modern Supply Chain	BMSC.20MINOR	30	74
Modern Business in a Changing World	BCW.20MINOR	30	76
Crowd Safety in Hubs & Events	ACS.20MINOR	30	77
Kennislab People and Goods on the Move	BPGM.20MINOR	30	79
Urban Retrofitting	BUR.20MINOR	30	80
Externe Minor ABEL	BEXT.20MINOR	30	

### Semester 2

Name	Osiris-code	ECTS	Page
Graduation Thesis	B4.SC-18*	30	82

# Logistics Engineering

**Year 1**



## Logistics engineering 2020- 2021: year 1

Developing policy 1
Developing policy 2
Developing policy 3
Supervising activities 1
Supervising activities 2
Supervising activities 3
Supervising activities 4
Implementing 1
Implementing 2
Implementing 3
Social and communicative subcompetencies
Social and communicative subcompetencies
Social and communicative subcompetencies
Self-directing subcompetency 2
Self-directing subcompetency 2
Self-directing subcompetency 3
Self-directing subcompetency 4

### Trimester 1

Starting Project  
Introduction into Economics  
Excel  
Introduction into Logistics  
Cross Cultural Management  
Statistics  
Mentoring 1

1	1		1							1	1	1	1	1	1	1
1				1			1	1								
1				1	1	1		1	1							1
1	1				1					1	1	1	1	1	1	1
1										1	1	1	1	1	1	1
1	1															
										1		1	1	1		

### Trimester 2

Blokko  
Management Accounting  
Mathematics  
Inventory Management  
Warehousing  
Service Operations Management  
Professional English 1

1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1			1	2			1	1								
1					1						1					
1	1	1	1	1	1		1	1	1							
1	1	1	1	1	1		1	1	1							
1	1				1		1	1	1	1	1	1	1	1	1	1
											1	1	1			1

### Trimester 3

Warehousing  
Basic Principles of Law  
Global Economics  
Transport Management  
Material Handling  
Professional English 2

1	1	1		1	1					1	1	1	1	1	1	1
	1	1		1	1			1		1					1	
1							1									
1	1	1	1	1	1		1	1	1							
1	1		1	1	2	1	1	1	1		1					
											2	3	2			1

# Logistics Engineering

**Year 1**

Trimester 1

OSIRIS-code: BIP1.STARTPR-18P

Course name: Starting Project

Study load: 4 EC (=112 hours)

Coordinator: Sijbren Hogewerf

Lecturer(s): Emelie Bral, Sijbren Hogewerf, Justin van de Pas, Raechel Torner

Learning objective(s): Upon completion of this study component you are able to:

- have effective meetings, collaborate with each other and to define tasks to achieve a final product;
- write a comprehensive and understandable report (according to the requirements of good reporting);
- give a presentation;
- show initiative and effort;
- provide constructive feedback.

Content description: In this study component, the following content is covered:

- Belbin and project roles;
- meeting structure;
- introduction to logistic themes;
- plan of approach;
- literature research;
- reporting;
- collaborate in a structured way;
- peer evaluation.

Language: EN

Teaching activity: Project

Examination: Group assignment 50%  
Individual assignment 50%  
Training 0%

Mark: Marks, F, MO

Required literature: R. Gritt. Project management: a practical approach. 5e druk. Noordhoff uitgevers (ISBN 9789001575625)

Required other materials: --

OSIRIS-code: BIP1.INTLOG-18C

Course name: Introduction into Logistics

Study load: 3 EC (=84 hours)

Coordinator: Jef Houtepen

Lecturer(s): Jan van Elderen, Jef Houtepen

- Learning objective(s): Upon completion of this study component you are able to:
- recall the different parts, functions and roles within a logistic supply chain, in a way that he/she can give a visual representation of this supply chain.
  - recognize the different possible roles of the customer and their influence on a supply chain.
  - explain the different phases of a product life cycle and give practical examples.
  - identify the different modalities of transport in a way that he/she can match a modality based on the attributes of the goods and the flow of goods.
  - indicate and interpret the importance of logistics within different kind of companies, in a way that he/she can recognize the different challenges that can appear in logistics.
  - reallocate the different phases within the Logistic Integral Concept, in a way that he/she can relate it to a company in a practical example
  - Solve a simple (production) planning issue with the use of specific tools (MRP-I) and outline the different roles of inventory within this planning.
  - work in a small group of persons to deliver a product/assignment under time pressure.
  - be aware of the different backgrounds of the other students, in a way that he/she can help others.
  - make a summary or visual of new knowledge in a way that he/she can recognize the (different between) the essence and the details.

- Content description: In this study component, the following content is covered:
- Logistics in various forms
  - The logistics framework
  - The relationship of market demand and logistics
  - Inventory management, Purchasing logistics & E-commerce
  - Production logistics
  - Reverse logistics

Language: EN

Teaching activity: Lecture, Training

Examination: Written exam 50%  
Group assignment 50%

Mark: Marks, F, MO

Required literature: Visser and van Goor. Logistics: Principles and Practice : a demand and supply chain management approach. Heruitgave. eigen uitgave (ISBN 9789081649117)

Required other materials: --

OSIRIS-code: BIP1.STATIS-18C

Course name: Statistics

Study load: 3 EC (=84 hours)

Coordinator: Elly Khademi

Lecturer(s): Eric Hopstaken, Elly Khademi

Learning objective(s): Upon completion of this study component you are able to:

- apply and interpret the basic concepts of descriptive statistics;
- apply the basic concepts of probability;
- distinguish between and apply discrete and continuous probability distributions;
- apply binomial, Poisson, and normal distributions to calculate probabilities;
- apply and interpret correlation and regression analysis using Excel;
- apply forecasting techniques.

Content description: In this study component, the following content is covered:

- descriptive Statistics/ data analysis including graphical presentations, measures for average, dispersion, and shape for probability distributions;
- probability calculations;
- expected values and combinatorial theory;
- binomial distribution;
- poisson distribution;
- normal distribution;
- forecasting including trend curves, correlation and regression.

Language: EN

Teaching activity: Lecture, Training

Examination: Written exam 80%  
Individual assignment 20%

Mark: Marks, F, MO

Required literature: --

Required other materials: --



OSIRIS-code: BIP1.CROS-18C

Course name: Cross Cultural Management

Study load: 3 EC (=84 hours)

Coordinator: Raechel Torner

Lecturer(s): Raechel Torner, Letty Zhu

Learning objective(s): Upon completion of this study component you are able to:

- understand the importance of cross-cultural management, and the relationship between culture, organisations, and management;
- identify the effect cultural values have on various managerial processes;
- apply Erin Meyer's eight scale tool to perform more effectively within intercultural groups;
- use Trompenaars' dimensions to compare dilemmas between cultures;
- apply Hofstede's dimensions to identify and articulate some of the similarities and differences between various cultures;
- identify various ways of developing cross-cultural competences;
- explain the benefits and challenges of having a multicultural workforce to others;
- recognise aspects of your own culture that shape the way you view the world and interact with others;
- relate themes and concepts learned in class to other courses in the LGEN/LGMT curriculum;
- explain the interaction between culture and verbal and non-verbal communication.

Content description: In this study component, the following content is covered:  
This course aims to provide students with an overview of the concepts, theories, and tools necessary to understand the complexities of culturally diverse societies and organisations. The meaning of culture will be explored as well as the influence of culture on a wide array of management practices. Emerging challenges related to globalisation and international management will be discussed, and students will reflect upon ways in which they can improve their own intercultural communication skills.

Language: EN

Teaching activity: Lecture, Training

Examination: Individual assignment 60%  
Group assignment 40%

Mark: Marks, F, MO

Required literature: Meyer, Erin. The Culture Map. Ingram Publisher Services US (ISBN 9781610392501)

Required other materials: --

OSIRIS-code: BIP1.INTRECO-18C

Course name: Introduction into Economics

Study load: 3 EC (=84 hours)

Coordinator: Sijbren Hogewerf

Lecturer(s): Sijbren Hogewerf

Learning objective(s): Upon completion of this study component you are able to:

- calculate (taxation on) added value and work from the circular flow of income;
- distinguish between economic and structural developments;
- identify different business characteristics, changes in the supply chain and business processes;
- process simple financial facts in the ledger and process this into an eight-column financial statement;
- prepare the financial statements of a business plan.

Content description: In this study component, the following content is covered:

- types of companies as for size, legal entity, line of business, etc.;
- added value in a production, trade and service company;
- financial and non-financial objectives;
- ledger accounts and the Eight column financial statements;
- business plan (e.g. Investment- and financing plan and forecast income statement);
- dupont chart;
- the circular flow of income;
- economic growth and the business cycle.

Language: EN

Teaching activity: Lecture

Examination: Written exam 100%

Mark: Marks, F, MO

Required literature: Hulleman and Marijs. Economics and business environment. Noordhoff Uitgevers (ISBN 9789001889432)

Required other materials: Reader, e-book, Edubook Finance & Control year 1 (part 1), Purchase

OSIRIS-code: BIP1.EXCEL-18T

Course name: Excel

Study load: 2 EC (=56 hours)

Coordinator: Peter Kole

Lecturer(s): Peter Kole, Tanja Monker

Learning objective(s): Upon completion of this study component you are able to:

- design spreadsheets;
- use basic functions to perform calculations within a spreadsheet;
- create and format charts.

Content description: In this study component, the following content is covered:

- open, edit, save and print a spreadsheet;
- create a spreadsheet with text, numbers and formulas;
- format cells;
- use the basic functions;
- understand and use relative and absolute cell referencing;
- create, format and print charts;
- solving simple problems with a spreadsheet;
- use of a pivot table;

- Excel 2016 is key part of the Microsoft Office suite 2016 applications. This spreadsheet application is one of the most popular microcomputer applications to date. It features calculation, graphing tools, pivot tables and a macro programming language. Excel has great tools for manipulating, analyzing, sorting, organizing, and charting all kinds of data.

Language: EN

Teaching activity: Training

Examination: Computer exam 100%

Mark: Marks, F, MO

Required literature: Ben Groenendijk. Getting More Out of Excel 2019: essential Topics for the Professional. Heruitgave. Boom Uitgevers Amsterdam (ISBN 9789024402281)

Required other materials: --

OSIRIS-code: B1.MENTOR1-18

Course name: Mentoring 1

Study load: 2 EC (= hours)

Coordinator: Ilse Hens

Lecturer(s): Ilse Hens

Learning objective(s): Upon completion of this study component you are able to:

- reflect on your academic career and on yourself as a starting professional;
- understand that you are responsible for your own course of study;
- use the right study approach and study skills.

Content description: In this study component, the following content is covered:

- introduction to the study programme and the industry;
- acquaintance with the industry;
- better insight into your qualities and your areas for improvement;
- feedback;
- independence;
- study progress;
- planning activities;
- learn to study;
- self directness;
- individual meetings (also non-study related matters);
- evaluations.

Language: EN

Teaching activity: Training, Fieldtrip, Training

Examination: Individual assignment 100%

Mark: P, F, MO

Required literature: --

Required other materials: Other, Edubook, [buas.myedumundo.com](http://buas.myedumundo.com), Studie & loopbaan, costs app 40 euro, Purchase

# Logistics Engineering

**Year 1**

Trimester 2



OSIRIS-code: BIP1.BLOKKO-18P

Course name: BlokkO

Study load: 5 EC (=140 hours)

Coordinator: Jan van Elderen

Lecturer(s): Dirk Broek, Jan van Elderen, Jef Houtepen, Aline de Jong, Letty Zhu

Learning objective(s): Upon completion of this study component you are able to:

- determine the basis structure of a production proces, it's control system and the logistic consequences of those decisions;
- create financial and operational plannings for a simple logistics company;
- translate customer requests and orders to logistical consequences for the company;
- reflect on the planning and company results in the BLOKKO game.

Content description: In this study component, the following content is covered:

- introduction into production logistics and introduction operations management;
- customer requests;
- competition;
- organisation of a (virtual) company;
- financial and operational company results.

- You are an employee of the competitor of the 'BlokkO turrets®' company. The market for this project is since years a stable one Your company wants to gain a vast share of the total market. To do so your company has to be designed as a fast and flexible turrets production unit, which is able to satisfy the customers demand. The results of all the preparations to establish a competitive company, will be tested in a 'game' situation. During the game, the different companies will play against each other to achieve the best company results.

Language: EN

Teaching activity: Project

Examination: Group assignment 50%  
Individual assignment 50%  
Training 0%

Mark: Marks, F, MO

Required literature: Visser, H.M. and A.R. van Goor. Logistics: Principles and Practice : a demand and supply chain management approach. Heruitgave. Wolters-Noordhoff (ISBN 9789081649117)

Required other materials: --

OSIRIS-code: BIP1.WHOUSE-18C

Course name: Warehousing

Study load: 2 EC (=56 hours)

Coordinator: Irma Lenselink

Lecturer(s): Irma Lenselink

Learning objective(s): Upon completion of this study component you are able to:

- indicate what different storage and handling methods are used in warehouses;
- choose the best option(s) for a warehouse operation;
- perform the basic steps to design a warehouse according to a structured approach.

Content description: In this study component, the following content is covered:

- introduction to warehousing: Warehouse function and types;
- introduction to Distribution network studies;
- location selection;
- warehouse processes;
- warehouse storage methods;
- material handling equipment;
- pick strategies;
- warehouse design;
- warehouse costing;
- performance management;
- warehouse management system.

Language: EN

Teaching activity: Lecture

Examination: Written exam 100%

Mark: Marks, F, MO

Required literature: Gwynne Richards. Warehouse Management: A Complete Guide to Improving Efficiency and Minimizing Costs in the Modern Warehouse. 2nd Revised edition. Kogan Page (ISBN 9780749479770)

Required other materials: Handouts, articles, magazines, relevant articles, Published on LMS

OSIRIS-code: BIP1.INV-18C

Course name: Inventory Management

Study load: 2 EC (=56 hours)

Coordinator: Luuk Koopman

Lecturer(s): Azadeh Irajifar, Luuk Koopman

Learning objective(s): Upon completion of this study component you are able to:

- understand, remember and describe the relevant choices that have to be made with regard to operational inventory management and you will learn how to apply this knowledge in real life situations;
- assess and if necessary improve the operational inventory management of a company.

Content description: In this study component, the following content is covered:

- types of inventory;
- demand patterns;
- assortment decisions;
- selection of pull inventory management methods (Reorder point, Periodic Review, Min-Max);
- application of inventory management methods on a database;
- allocation of inventory in the supply chain.

Language: EN

Teaching activity: Lecture, Training

Examination: Written exam 100%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

OSIRIS-code: BIP1.MATHS-18C

Course name: Mathematics

Study load: 3 EC (=84 hours)

Coordinator: Elly Khademi

Lecturer(s): Elly Khademi, Tanja Monker

Learning objective(s): Upon completion of this study component you are able to:

- conduct basic arithmetic with constants (numerical values) and variables;
- solve linear and nonlinear equations with one variable analytically;
- solve two linear equations with two unknowns;
- find derivatives of different functions using formula sheet and rules;
- find the tangent line to the graph of a function at a certain point using the derivative;
- create, from a practical problem description, a mathematical model with appropriate variables and solve this problem to find a solution.

Content description: In this study component, the following content is covered:

- important number systems and basic operations;
- neutral element and inverse of a number;
- rules for compound calculations;
- algebra for numbers and letters (variables);
- calculations with fractions and powers;
- algebra: special products;
- equality versus equation;
- linear equations;
- working with percentages;
- linear equations with two unknowns;
- quadratic equations;
- functions in general and special functions (Linear, Quadratic, Polynomial, Rational, Powers, Roots, Exponential, Logarithms);
- analysis of functions;
- derivative (definition and meaning);
- tangent line;
- derivatives of standard functions;
- rules of differentiation;
- inflection points;
- asymptotes;
- mathematics' application in Logistics.

Language: EN

Teaching activity: Lecture, Training

Examination: Written exam 100%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

OSIRIS-code: BIP1.MGTACC-18C

Course name: Management Accounting

Study load: 3 EC (=84 hours)

Coordinator: Sijbren Hogewerf

Lecturer(s): Sijbren Hogewerf, Azadeh Irajifar, Semi Torun

Learning objective(s): Upon completion of this study component you are able to:

- compute calculations regarding the unit cost and the break-even analysis;
- apply absorption costing and direct costing in cost and profit calculations;
- use different methods to allocate indirect costs in order to calculate the unit costs of a good or service;
- analyze budget variances by means of a variance analysis;
- calculate the effect of various depreciation methods.

Content description: In this study component, the following content is covered:

- cost structures within the organization;
- standard unit costs;
- fixed and variable costs;
- direct costing and absorption costing;
- break-even analysis;
- direct and indirect costs;
- allocation methods for indirect costs (cost center method and surcharge method);
- budgeting, the master budget and variance analysis;
- selection of the most suitable cost calculation technique in a given situation;
- bottleneck analysis;
- depreciation methods;
- financial statements within the business plan (e.g. cash flow and income statement). Based on this: investment selection, based on cash flows and pay-back period.

Language: EN

Teaching activity: Lecture, Training

Examination: Written exam 100%

Mark: Marks, F, MO

Required literature: --

Required other materials: Reader, e-book, Edubook Finance & Control year 1 (part 2), Published on LMS



OSIRIS-code: BIP1.SOM-18C

Course name: Service Operations Management

Study load: 2 EC (=56 hours)

Coordinator: Justin van de Pas

Lecturer(s): Diana van Dijk, Justin van de Pas

Learning objective(s): Upon completion of this study component you are able to:

- recognize logistic aspects of the services sector and understand logistic principles.

Content description: In this study component, the following content is covered:

- gaining an insight into different aspects of logistic processes in the services sector for example events and healthcare;
- recognizing and presenting examples of services;
- classifying principles within the services sector;
- describing types of services aimed at people and resources in relation to quality, time and costs;
- an introduction to waiting time theory.

Language: EN

Teaching activity: Lecture

Examination: Written exam 65%  
Group assignment 35%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

OSIRIS-code: BIP1.ENGPRO1-18C

Course name: Professional English 1

Study load: 3 EC (=84 hours)

Coordinator: Raechel Torner

Lecturer(s): Leigh Stevens, Raechel Torner

Learning objective(s): Upon completion of this study component you are able to:

- understand the main ideas of complex articles and texts related to the field of logistics without serious misunderstanding;
- identify and proactively use resources available to help you further improve your reading, writing, speaking, and listening skills in English;
- give a clear presentation on a familiar topic, and answer predictable or factual questions;
- scan texts for relevant information, and understand detailed instructions or advice;
- relate themes and concepts learned in class to other courses in the curriculum.

Content description: In this study component, the following content is covered:  
This training develops English language skills through an interactive learning format. Students will develop their reading, writing, speaking, and listening skills via a variety of in-class activities and self-study exercises.

Language: EN

Teaching activity: Training

Examination: Individual assignment 50%  
Group assignment 50%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

# Logistics Engineering

**Year 1**

Trimester 3

OSIRIS-code: BIP1.WAREH-18P

Course name: Warehousing

Study load: 6 EC (=168 hours)

Coordinator: Luuk Koopman

Lecturer(s): Jef Houtepen, Azadeh Irajifar, Aline de Jong, Luuk Koopman, Letty Zhu

Learning objective(s): Upon completion of this study component you are able to:

- select an appropriate location for a warehouse;
- design a warehouse for your customer based on, amongst others, article and sales characteristics;
- select an appropriate inventory management concept and calculate the impact of the chosen concept on the inventory levels and associated costs.

Content description: In this study component, the following content is covered:

- location selection;
- warehouse lay-out;
- inventory management;
- performance quick scan of an existing warehouse.

Language: EN

Teaching activity: Project

Examination: Group assignment 50%  
Individual assignment 50%  
Training 0%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

OSIRIS-code: BIP1.TRMGT-18C

Course name: Transport Management

Study load: 3 EC (=84 hours)

Coordinator: Dirk Broek

Lecturer(s): Dirk Broek

Learning objective(s): Upon completion of this study component you are able to:

- to choose the right logistic units and mode of transport related to product characteristics, requirements of the shipper and consignee and the characteristics of the various modes of transport. This all within an unimodal or multimodal network;
- analyse and discuss the various kind of freight transport within different chains and markets and can recognize and nominate the different levels of steering above these kind of networks.

Content description: In this study component, the following content is covered:

- standardization and normalization;
- function and qualities of the following logistic units like loading units, loading equipment, transport units and mode of transport units;
- the influence of the choice on the cost structure and sustainable management;
- the influence of the choice of logistic units for organisations and steering departments;
- market transparency within the chain and the consequences for transport;
- secure of cargo;
- perishable transport;
- base principles of Dangerous Goods related to transport and storage;
- the (dis)advantages of the different modes of transport;
- first acquaintance with possible combinations of various modes of transport;
- the organisation within the transport chain;
- the choice of the mode of transport;
- micro, meso and macro level within transport;
- a sustainable composition of transport chains by using more clean fuels, more efficient engines.

Language: EN

Teaching activity: Lecture, Project

Examination: Written exam 80%  
Group assignment 20%

Mark: Marks, F, MO

Required literature: --

Required other materials: Reader, e-book, Reader Transport Management, Published on LMS



OSIRIS-code: BIP1.GLECO-18C

Course name: Global Economics

Study load: 3 EC (=84 hours)

Coordinator: Jan Verhey

Lecturer(s): Jan Verhey

Learning objective(s): Upon completion of this study component you are able to:

- calculate elasticities and market equilibrium, based on supply and demand function;
- apply Porter's five forces model and other market analysis models in a elementary setting;
- analyze the business cycle and determine the impact on company policy;
- explain the effect of input costs (wages and commodities) for a company;
- analyze interest rate and currency movements and, based on this determine business policies.
- analyze reasons and effects of protectionism

Content description: In this study component, the following content is covered:

- business environment and market power;
- Porter's Five Forces model;
- price, cross price and income elasticity;
- market equilibrium and price mechanism;
- business cycles, business cycle indicators and company policies;
- energy prices, commodities, wages and company policies;
- interest rates, inflation and their effect on costs;
- company's susceptibility to exchange rates and corresponding company approach;
- protectionism vs free trade

Language: EN

Teaching activity: Lecture, Training

Examination: Group assignment 100%  
Studio

Mark: Marks, F, MO

Required literature: Hulleman and Marijs. Economics and business environment.. Noordhoff Uitgevers (ISBN 9789001889432)

Required other materials: --

OSIRIS-code: BIP1.LAW1-18C

Course name: Basic Principles of Law

Study load: 2 EC (=56 hours)

Coordinator: Aline de Jong

Lecturer(s): Aline de Jong

Learning objective(s): Upon completion of this study component you are able to:  
- analyse basic legal cases with regard to the topics mentioned below.

Content description: In this study component, the following content is covered:

- the relevance of law for the logistic profession;
- a company's legal / regulatory environment;
- EU's influence on national regulatory environments;
- property law as a foundation of trade;
- contract law as a foundation of commercial relationships;
- the characteristics of Sales and Services contracts;
- the legal forms of companies;
- the balance between creating value and legal rules.

Language: EN

Teaching activity: Lecture

Examination: Written exam 90%  
Group assignment 10%

Mark: Marks, F, MO

Required literature: Jansen M.A. Law & Self-regulation : legal and business perspectives. (ISBN 9789053834107)

Required other materials: --

OSIRIS-code: BIP1.MATHAN-18C

Course name: Material Handling

Study load: 3 EC (=84 hours)

Coordinator: Azadeh Irajifar

Lecturer(s): Azadeh Irajifar, Rien Smalheer

Learning objective(s): Upon completion of this study component you are able to:

- indicate which factors can be of importance to projects within warehousing; both within the logistics domain and related domains of facilities, IT, and HSE;
- translate above mentioned factors into concrete recommendations / requirements for a warehouse operation;
- make a drawing of a partially designed warehouse in AutoCAD.

Content description: In this study component, the following content is covered:

- introduction of project management aspects within the warehouse environment;
- material handling equipment & automated systems;
- building requirements;
- security requirements;
- health, Safety, environment requirements;
- IT requirements;
- introduction into technical drawing in AutoCAD.

Language: EN

Teaching activity: Lecture, Training

Examination: Group assignment 50%  
Written exam 30%  
Group assignment 20%

Mark: Marks, F, MO

Required literature: --

Required other materials: Handouts, articles, magazines, relevant articles, Published on LMS

OSIRIS-code: BIP1.ENGPRO2-18C

Course name: Professional English 2

Study load: 3 EC (=84 hours)

Coordinator: Raechel Torner

Lecturer(s): Leigh Stevens, Raechel Torner

Learning objective(s): Upon completion of this study component you are able to:

- understand the main ideas of complex articles and texts related to the field of logistics without serious misunderstanding;
- identify and proactively use resources available to help you further improve your reading, writing, speaking, and listening skills in English;
- give a clear presentation on a familiar topic, and answer predictable or factual questions;
- scan texts for relevant information, and understand detailed instructions or advice;
- relate themes and concepts learned in class to other courses in the curriculum.

Content description: In this study component, the following content is covered:  
This training develops English language skills through an interactive learning format. Students will develop their reading, writing, speaking, and listening skills via a variety of in-class activities and self-study exercises.

Language: EN

Teaching activity: Training

Examination: Individual assignment 100%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

# Logistics Engineering

**Year 2**

Logistics engineering 2020-  
2021: year 2

Developing policy 1
Developing policy 2
Developing policy 3
Supervising activities 1
Supervising activities 2
Supervising activities 3
Supervising activities 4
Implementing 1
Implementing 2
Implementing 3
Social and communicative subcompetencies
Social and communicative subcompetencies
Social and communicative subcompetencies
Self-directing subcompetency 2
Self-directing subcompetency 2
Self-directing subcompetency 3
Self-directing subcompetency 4

**Trimester 1**

Intermodal Transport  
Operations Management  
Professional Writing and  
Com. 1  
Management &  
Organisation  
Business Process  
Management & ICT  
Procurement Management  
Mentoring 2

2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	1	2	2	2	2	2	2	2							
											2	2	2	2	2	2
1				1		1							1		1	
2	2	2	1	2	1	1		1	1	1	1					
3	2	2		2	2					2	2					
										2	2		2			

**Trimester 2**

Aurora  
Physical Distribution & ICT  
Financial Accounting &  
ABCosting  
Import & Export  
Management  
Research Methods  
Production Management

2	2	2		2	2		2	2	2	2	2	2	2	2	2	2
	1	2	1		2		2		1				2	1		1
1		1		1		1		2								1
2	2		1		2		1					1		1		
2	2				2			2		2	2	2	2	2	2	2
2	2	1			2	1	2	2	2	2	2	1	2			

**Trimester 3**

Supply Chain Management  
Operations Research  
Trade & Transport Law  
Automation Technology  
External Project  
Free elective 1  
Free elective 2

2	2	1			2			1			2					
2	2				2				2							
	2	2			2			2		2						
2	2			2	2		2	2		1			2			
2	2	2		2	2	1	1	1	1	2	2	1		2	2	2
													2	2	2	2
													2	2	2	2

# Logistics Engineering

**Year 2**

Trimester 1

OSIRIS-code: BIP2.MULTI-18P

Course name: Intermodal Transport

Study load: 5 EC (=140 hours)

Coordinator: Dirk Broek

Lecturer(s): Dirk Broek, Azadeh Irajifar, Letty Zhu

Learning objective(s): Upon completion of this study component you are able to:

- determine the economic feasibility of the intermodal transport chains;
- determine the logistics feasibility of the intermodal transport networks;
- draw up the accompanying analyses;
- compile a business plan;
- implement DESTEP for an intermodal terminal;
- set-up proposals.

Content description: In this study component, the following content is covered:  
The project will be preceded by 10 lectures, in which the theory will be discussed. The project is carried out by order of the customer. Elements of competition and play have been incorporated into the project for the project groups. Subsequently, the following parts are dealt with:

- elaboration on the offer of the intermodal terminal's services with a determination of an area and destination origin;
- making a set-up proposal for an inland terminal;
- making a business plan for the inland terminal;
- compiling a commercial offer from a perspective of a logistics service provider from a designated country of origin to various ports in the Western Europe.

Language: EN

Teaching activity: Project, Lecture

Examination: Written exam 50%  
Group assignment 50%  
Training 0%

Mark: Marks, F, MO

Required literature: Jong, F., Rodeman, H., Ruijgrok, K., Verweij, K.. The Vitality of Intermodal Transport. InterRoJo Publications (ISBN 9789082814200)

Required other materials: --



OSIRIS-code: BIP2.COPMGT-18C

Course name: Operations Management

Study load: 2 EC (=56 hours)

Coordinator: André Gijsberts

Lecturer(s): André Gijsberts

Learning objective(s): Upon completion of this study component you are able to:

- know the principles of the three most important manufacturing philosophies;
- have an overview regarding Operations Management;
- solve related practice problems.

Content description: In this study component, the following content is covered:  
Operations management is the activity of managing the resources which are devoted to the production and delivery of products and services. We use a broad definition of operations, which includes the processes in hospitals, banks and airlines besides the more classic one focused on manufacturing companies only.

We start with an introduction in the field of OM and focus mainly on planning and control, with a slight touch on design of products and processes. In the second part of the course manufacturing philosophies MRP and ERP, TOC, Lean and JIT are discussed.

The course uses Introduction into Logistics as a foundation.

Language: EN

Teaching activity: Lecture, Training

Examination: Written exam 100%

Mark: Marks, F, MO

Required literature: E. Goldratt. The Goal: A Process of Ongoing Improvement. 3rd. Novel, every edition is allright (ISBN 9780884271956)

Required other materials: --

OSIRIS-code: BIP2.ICTLOG1-19C

Course name: Business Process Management & ICT

Study load: 3 EC (=84 hours)

Coordinator: Irene Meeuwesen

Lecturer(s): Irene Meeuwesen

Learning objective(s): Upon completion of this study component you are able to:

- understand the possibilities which logistic software solutions (amongst all ERP) offer in improving the effectiveness of information availability in organisations;
- describe the steps which a company takes to select and implement logistic software solutions;
- execute purchasing, sales and warehouse transactions in a logistical application (specifically in an ERP environment);
- understand how methodical process design helps to formulate process requirements;
- draw proces schemes with help of the international standard BPMn;
- explain how the use of logistical software solutions creates better alignment of processes and therefor has a positive impact on KPI's;
- independently select and apply BPM techniques to recognize, describe and assess processes.

Content description: In this study component, the following content is covered:

- the role and use of ICT in companies;
- the design, function and use of logistic software systems by purchasers, salesmen and warehouse employees;
- the various types of order flows in an ERP system;
- selection and implementation of logistic software systems;
- ICT projects
- datamanagement & Business Intelligence.

Language: EN

Teaching activity: Lecture, Training

Examination: Computer exam 100%

Mark: Project

Required literature: Visser and van Goor. Logistics: Principles and Practice : a demand and supply chain management approach. Heruitgave. eigen uitgave (ISBN 9789081649117)

Required other materials: Handouts, articles, magazines, docent publiceert, Published on LMS

OSIRIS-code: BIP2.CINKMG-18C

Course name: Procurement Management

Study load: 3 EC (=84 hours)

Coordinator: Luuk Koopman

Lecturer(s): Sijbren Hogewerf, Luuk Koopman

Learning objective(s): Upon completion of this study component you are able to:

- identify the core procurement strategies, make a difference between procurement, purchasing and supply chain management;
- advise how to establish an effective purchasing system;
- advise how to identify the best suppliers;
- identify the major cost drivers and advise to add value and reduce costs;
- advise how procurement activities should be performed best;
- identify how procurement activities may impact profitability.

Content description: In this study component, the following content is covered:

- procurement scope and development;
- strategic aspects of purchasing;
- procurement, structure and organization;
- the purchasing and supply environment;
- key considerations: Quality, Quantity, Time, Source decision making, Price;
- purchasing negotiations;
- international purchasing;
- capital goods;
- purchasing for resale;
- purchasing systems;
- people in Procurement;
- research into Procurement and Supply.

Language: EN

Teaching activity: Lecture, Training

Examination: Written exam 50%  
Group assignment 50%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

OSIRIS-code: BIP2.PCW1-19C

Course name: Professional Writing and Com. 1

Study load: 2 EC (=56 hours)

Coordinator: Raechel Torner

Lecturer(s): Diana van Dijk, Raechel Torner

Learning objective(s): Upon completion of this study component you are able to:

- write a professional literature study on a logistic topic;
- discuss logistic topics in a professional way.

Content description: In this study component, the following content is covered:

- the structure of a literature study based on different perspectives;
- the use of reliable sources;
- the use of academic vocabulary (The Manchester Academic Phrasebank);
- preparing relevant discussion questions and input;
- practising different roles: chairman, discussion member and observer.

Language: EN

Teaching activity: Lecture, Training

Examination: Individual assignment 60%  
Individual assignment 40%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

OSIRIS-code: BIP2.MTORG-18C

Course name: Management & Organisation

Study load: 2 EC (=56 hours)

Coordinator: Erik van Diffelen

Lecturer(s): Erik van Diffelen

Learning objective(s): Upon completion of this study component you are able to:

- describe foundation concepts and theories in the field of Management & Organization;
- to analyze practical organizational processes through a theoretical lens;
- explicate effective behavior in future work-related situations.

Content description: In this study component, the following content is covered:

- job satisfaction;
- perception and decision making;
- motivation;
- group behavior;
- leadership;
- organization structure;
- change management.

Language: EN

Teaching activity: Lecture

Examination: Individual assignment 20%  
Written exam 80%

Mark: Marks, F, MO

Required literature: Robbins & Judge. Essentials of Organizational Behavior. Pearson (ISBN 9781292221410)

Required other materials: --

OSIRIS-code: B2.MENTOR2-18 (LG-EN)

Course name: Mentoring 2

Study load: 3 EC (=84 hours)

Coordinator: Ilse Hens

Lecturer(s): Ilse Hens

Learning objective(s): Upon completion of this study component you are able to:

- learn about skills and interests;
- learn about strong and weak points;
- see possibilities and constraints;
- make a well considered choice for a work placement;
- give feedback;
- share experiences.

Content description: In this study component, the following content is covered:

- feedback;
- discuss PDP; Personal Development Plan;
- identify ambitions, goals and capacities;
- international field trip;
- guest lectures from the industry;
- work placement preparations;
- individual meetings;
- placement workshops.

Language: EN

Teaching activity: Training, Fieldtrip, Training

Examination: Individual assignment 100%

Mark: P, F, MO

Required literature: --

Required other materials: --

# Logistics Engineering

**Year 2**

Trimester 2

OSIRIS-code: BIP2.AURORA-18P

Course name: Aurora

Study load: 5 EC (=140 hours)

Coordinator: Irene Meeuwesen

Lecturer(s): Aline de Jong, Irene Meeuwesen, Letty Zhu

Learning objective(s): Upon completion of this study component you are able to:  
Use the theoretical background in Operations Management for an advice in a practical case study.

Content description: In this study component, the following content is covered:  
Aurora has several problems in its operations at different companies. You are asked in your role as consultant to analyse these problems and invent solution strategies. These solutions are presented by your consultancy agency at the end of the project (group product).

Further on: there will be an assignment to choose a company, contact and interview the operations manager and make an analysis of this company. This will result in a report (individual product).

The project uses the course Operations Management as a foundation.

Language: EN

Teaching activity: Project

Examination: Group assignment 50%  
Individual assignment 50%  
Training 0%

Mark: Marks, F, MO

Required literature: --

Required other materials: Reader, e-book, to be handed out in kick off session, Published on LMS



OSIRIS-code: BIP2.PRMA-18C

Course name: Production Management

Study load: 3 EC (=84 hours)

Coordinator: André Gijsberts

Lecturer(s): André Gijsberts

Learning objective(s): Upon completion of this study component you are able to:  
- use different techniques from Operations Management.

Content description: In this study component, the following content is covered:  
- rehearsal concepts of OM;  
- planning on different levels: from S&OP, workforce planning to machine planning  
- scheduling on different levels (with LEKIN);  
- guest lectures(if possible)  
- jobbing & project production (with network planning & MS-project);  
- queuing theory

Language: EN

Teaching activity: Lecture, Training

Examination: Written exam 75%  
Group assignment 25%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

OSIRIS-code: BIP2.ICT-18C

Course name: Physical Distribution & ICT

Study load: 2 EC (=56 hours)

Coordinator: Jan van Elderen

Lecturer(s): Jan van Elderen

Learning objective(s): Upon completion of this study component you are able to:

- recognize the role of ICT within a (distribution) organization and understand the implications involved;
- solve a (complex) route and route planning issue using specific software solutions;
- name and interpret the relationships between different software solutions (ERP, FMS, TMS, WMS) within a distribution environment;
- recognize and continue the process of the selection process and implementation of performance indicators within a distribution environment;
- describe the current developments (innovations) within ICT & distribution and provide advice on the practical applicability of these developments in distribution logistics.

Content description: In this study component, the following content is covered:

- role of ICT within distribution;
- trip- and Routeplanning;
- transportmanagement Systems;
- fleet Management Systems;
- automatic Identification;
- performance Indicators within Distribution;
- innovation in Distribution (&ICT);
- ICT and distribution in practice: Casestudy/Examples.

Language: EN

Teaching activity: Lecture, Training

Examination: Written exam 70%  
Group assignment 30%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

OSIRIS-code: BIP2.MTO-18C

Course name: Research Methods

Study load: 3 EC (=84 hours)

Coordinator: Justin van de Pas

Lecturer(s): Sannie van Boxtel, Justin van de Pas, Maarten van Rijn

Learning objective(s): Upon completion of this study component you are able to:

- understand, remember and describe how to design and conduct an applied research project such as
- an internship assignment;
- apply a selected number of research methods in real life situations.

Content description: In this study component, the following content is covered:

- the research process and making a research plan;
- research design;
- types of research and relation with the handling cycle;
- research techniques;
- data collection and corresponding plans;
- sampling and reliability intervals.

Language: EN

Teaching activity: Lecture, Training

Examination: Written exam 55%  
Group assignment 45%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

OSIRIS-code: BIP2.FINACC-18C

Course name: Financial Accounting & ABCosting

Study load: 2 EC (=56 hours)

Coordinator: Jan Verhey

Lecturer(s): Jan Verhey

Learning objective(s): Upon completion of this study component you are able to:

- read financial overviews and analyze financial statements;
- interpret financial reports;
- choose between and apply financial sources;
- compose and analyze the basics of Activity Based Costing.

Content description: In this study component, the following content is covered:

- financial planning;
- the financial structure;
- capital budgeting;
- working capital management;
- reverse factoring and other methods of Supply Chain Finance;
- capital structure;
- financial statement analysis;
- activity based costing (basics).

Language: EN

Teaching activity: Lecture

Examination: Written exam 100%

Mark: Marks, F, MO

Required literature: . E-book Finance and Control Year 2. Edubook (ISBN )

Required other materials: --

OSIRIS-code: BIP2.IMEXMT-18C

Course name: Import & Export Management

Study load: 2 EC (=56 hours)

Coordinator: Erik van Diffelen

Lecturer(s): Erik van Diffelen

Learning objective(s): Upon completion of this study component you are able to:

- obtain an insight on import management;
- get a principle of export management;
- analyse on operational, tactical and strategic levels export-import operations;
- discuss trade facilitation in a glance;
- define HS-codes;
- give a description of imported items for the customs purposes;
- calculate customs duties and import duties.

Content description: In this study component, the following content is covered:

- logistic aspects of import and export;
- customs aspects of import and export;
- financial aspects of import and export;
- an import/export plan;
- WTO;
- HS-codes.

Language: EN

Teaching activity: Lecture

Examination: Written exam 80%  
Group assignment 20%  
Lecture

Mark: Marks, F, MO

Required literature: Hans Veldman. Export Management: A European Perspective. Noordhoff Uitgevers (ISBN 9789001700324)

Required other materials: --

OSIRIS-code: BIP2.PCW2-19C

Course name: Professional Writing and Com. 2

Study load: 3 EC (= hours)

Coordinator: Raechel Torner

Lecturer(s): Raechel Torner

Learning objective(s): Upon completion of this study component you are able to:

- identify your qualities, development points, interests and ambitions in relation to the industry, your education, and your future career;
- apply for a placement or job in a professional manner;
- profile yourself in a professional manner;
- make choices as to which application method(s) best suit your personality and the organisation to which you are applying;
- identify and proactively use resources available to help you reach your personal development goals in the 3rd and 4th year of the study.

Content description: In this study component, the following content is covered:

- tools, resources, and exercises to aid you in your professional development;
- the use of various online and offline application methods;
- networking skills and how to increase your professional visibility.

Language: EN

Teaching activity: Training

Examination: Individual assignment 100%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

# Logistics Engineering

**Year 2**

Trimester 3

OSIRIS-code: BIP2.EXPRO-18P

Course name: External Project

Study load: 5 EC (=140 hours)

Coordinator: Sannie van Boxtel

Lecturer(s): Sannie van Boxtel, Semi Torun, Letty Zhu

Learning objective(s): Upon completion of this study component you are able to:

- analyse a logistic problem in an actual project in the field of transport and traffic, events or production logistics;
- give recommendations for logistic improvements.

Content description: In this study component, the following content is covered:

- professional behavior;
- contact with commissioner;
- preparation for the first internship;
- report writing;
- literature study.

Language: EN

Teaching activity: Project

Examination: Individual assignment 50%  
Process (obligatory) 50%  
Training 0%

Mark: Marks, F, MO

Required literature: --

Required other materials: --



OSIRIS-code:	BIP2.SCM-18C
Course name:	Supply Chain Management
Study load:	2 EC (=56 hours)
Coordinator:	Danielle Dielemans
Lecturer(s):	Pauline van Beusekom, Danielle Dielemans, Jef Houtepen
Learning objective(s):	<p>Upon completion of this study component you are able to:</p> <ul style="list-style-type: none"> <li>- analyse the control side of logistic chains;</li> <li>- declare the risks in a supply chain;</li> <li>- use different supply chain concepts;</li> <li>- understand the effects of SRM and CRM.</li> </ul>
Content description:	<p>In this study component, the following content is covered:</p> <ul style="list-style-type: none"> <li>- chain integration;</li> <li>- ECR ( efficient consumer response);</li> <li>- efficient replenishment;</li> <li>- supply chain concepts;</li> <li>- supply chain risks;</li> <li>- SRM ( supplier relationship management );</li> <li>- CRM ( customer relationship management);</li> </ul>
Language:	EN
Teaching activity:	Lecture, Training, Project
Examination:	<p>Group assignment 30%</p> <p>Individual assignment 30%</p> <p>Written exam 40%</p>
Mark:	Marks, F, MO
Required literature:	<p>Martin Christopher. Logistics &amp; Supply Chain Management. Pearson education (ISBN 9781292083797),</p> <p>Visser and van Goor. Logistics: Principles and Practice : a demand and supply chain management approach. Heruitgave. eigen uitgave (ISBN 9789081649117)</p>
Required other materials:	--

OSIRIS-code: BIP2.HVRE-18C

Course name: Trade & Transport Law

Study load: 3 EC (=84 hours)

Coordinator: Aline de Jong

Lecturer(s): Aline de Jong

Learning objective(s): Upon completion of this study component you are able to:

- analyse basic cases with regard to contract law (Dutch), trade law and transportation law.

Content description: In this study component, the following content is covered:

- breach of contract and remedies;
- applicability of the CISG;
- obligations of buyer and seller deriving from an international contract of sale;
- transfer of risk between buyer and seller in context of an international contract of sale;
- incoterms;
- applicability of CMR, CMNI, Hague Visby Rules and Montreal Convention;
- obligations of carriers, consignors, and consignees;
- liability of carriers;
- restrictions and limitations on liability of carriers;
- customs;
- documents.

Language: EN

Teaching activity: Lecture

Examination: Written exam 100%

Mark: Marks, F, MO

Required literature: Jansen, M.A.. Law & self-regulation : legal and business perspectives.  
Legalmarketing.nl (ISBN 9789053834107)

Required other materials: --

OSIRIS-code: BIP2.AUTOM-18C

Course name: Automation Technology

Study load: 2 EC (=56 hours)

Coordinator: Jan van Elderen

Lecturer(s): Jan van Elderen, Azadeh Irajifar

Learning objective(s): Upon completion of this study component you are able to:

- understand, remember and describe the fundamentals and basic components of a modern automated process and its application in different situations, so that you are a competent discussion and project partner of the engineer in current and future automation procedures in your future working environment.

Content description: In this study component, the following content is covered:

- automation of logistic and production systems;
- solving a technical control problem with the help of a sequential function diagram;
- usage of sensors;
- usage and the possibilities of Programmable Logic Controllers.

Language: EN

Teaching activity: Lecture, Training

Examination: Written exam 60%  
Group assignment 20%  
Group assignment 20%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

OSIRIS-code: BIP2.COR-18C

Course name: Operations Research

Study load: 3 EC (=84 hours)

Coordinator: André Gijsberts

Lecturer(s): André Gijsberts

Learning objective(s): Upon completion of this study component you are able to:

- building, solving and analyzing linear programming and network models.

Content description: In this study component, the following content is covered:

- formulation of Linear Programming (LP) models;
- graphical method for solving small LP-problems;
- building, solving and analyzing models with the Excel Solver;
- using algorithms for certain types of network problems (Shortest path, TSP, MST, CPP et cetera);
- able to connect both areas to problems in production and distribution.

Language: EN

Teaching activity: Lecture, Training

Examination: Written exam 75%  
Group assignment 25%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

OSIRIS-code: BIP2.PCW3-19C

Course name: Professional Writing and Com. 3

Study load: 3 EC (= hours)

Coordinator: Raechel Torner

Lecturer(s): Raechel Torner

Learning objective(s): Upon completion of this study component you are able to:

- write an advisory report based on a proposal / quotation for services, an interview, and desk research;
- make a choice as to which communication skills are needed to turn a client's request into professional advice.

Content description: In this study component, the following content is covered:

- the important parts of a quotation for services;
- interview forms and techniques;
- using a feasibility study to write an advisory note.

Language: EN

Teaching activity: Training

Examination: Group assignment 100%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

OSIRIS-code: BIP2.FREE1-01 (LGEN)

Course name: Free elective 1

Study load: 1 EC (=28 hours)

Coordinator: Ilse Hens

Lecturer(s): Ilse Hens

Learning objective(s): Upon completion of this study component you are able to:

- make a choice for an activity for your personal development; extra on your CV;
- develop your skills on a self-chosen topic;
- write a plan for your development on self-chosen learning objective.

Content description: In this study component, the following content is covered:  
The design and planning of your free electives, under two conditions;

- 1. for each credit, you must choose an activity that requires 28 hours of work;
- 2. you have to be able to explain why the activity is a valuable addition to your curriculum. What will you learn and which competencies will you develop?

Examples:

- course at an other education in- or outside BUAS (if you are on ISD you can follow a course at ILT);
- online courses / training
- assignments and / or study trips, organized by teachers / employees from the BUAS;
- dutch speaking students can also choose courses of the Dutch Free Electives.

For more information, see LMS, Info Sources.

Language: EN

Teaching activity:

Examination: Individual assignment 100%

Mark: P, F, MO

Required literature: --

Required other materials: --

OSIRIS-code: BIP2.FREE2-01 (LGEN)

Course name: Free elective 2

Study load: 1 EC (=28 hours)

Coordinator: Ilse Hens

Lecturer(s): Ilse Hens

Learning objective(s): Upon completion of this study component you are able to:

- make a choice for an activity for your personal development; extra on your CV;
- develop your skills on a self-chosen topic;
- write a plan for your development on self-chosen learning objective.

Content description: In this study component, the following content is covered:  
The design and planning of your free electives, under two conditions;

- 1. for each credit, you must choose an activity that requires 28 hours of work;
- 2. you have to be able to explain why the activity is a valuable addition to your curriculum. What will you learn and which competencies will you develop?

Examples:

- course at an other education in- or outside BUAS (if you are on ISD you can follow a course at ILT);
- online courses / training
- assignments and / or study trips, organized by teachers / employees from the BUAS;
- dutch speaking students can also choose courses of the Dutch Free Electives.

For more information, see LMS, Info Sources.

Language: EN

Teaching activity:

Examination: Individual assignment 100%

Mark: P, F, MO

Required literature: --

Required other materials: --

# Logistics Engineering

**Year 3**



## Logistics engineering 2020- 2021: year 3

Developing policy 1
Developing policy 2
Developing policy 3
Supervising activities 1
Supervising activities 2
Supervising activities 3
Supervising activities 4
Implementing 1
Implementing 2
Implementing 3
Social and communicative subcompetencies
Social and communicative subcompetencies
Social and communicative subcompetencies
Self-directing subcompetency 2
Self-directing subcompetency 2
Self-directing subcompetency 3
Self-directing subcompetency 4

### Trimester 1

Internship 1

2	2	2	1	2	2	2	1	1	1	2	2	2	2	2	2	2
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### Trimester 2

Entrepreneurship

E-Logistics

Quality Management

Network Logistics

Data Management & ICT

Port Logistics

Simulation

2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		3			3											
1	3	3	2	3	3	2	2	3	2	2	2	3	2	2	3	2
3	2	3		3	3		2	2	2	2	3	2		2	2	2
2	3	3			3	1			2							
3	3	3	2	2	3	3	3	3	2							
3	3				3	3		3	2							

### Trimester 3

Internship 2

2	2	2	2	2	2	2	2		2	2	2	2	2	2	2	2
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# Logistics Engineering

**Year 3**

Trimester 1

OSIRIS-code: BIP3.IS1-19

Course name: Internship 1

Study load: 20 EC (=560 hours)

Coordinator: Irene Meeuwesen

Lecturer(s): Irene Meeuwesen

Learning objective(s): Upon completion of this study component you are able to:

- tackle a practical problem- with control and feedback- to report and present;
- admission for internship;

You have to arrange your own internship, bearing in mind that the internship and assignment have to be approved by the internship coordinator. The terms and conditions to be admitted to the internship are mentioned in the Teaching and Examination Regulations SLM.

Content description: In this study component, the following content is covered:

- you will be working on the job during 14 weeks and carry out an assignment for the company or institution;
- you report the results in a report and explain these results during graduation;
- you mention your learning experiences in a process report.

Coordinators;

- LOG: Irene Meeuwesen / Luuk Koopman;
- ISD: Leigh Stevens.

Language: EN

Teaching activity: Placement

Examination: Individual assignment 100%

Mark: Project

Required literature: --

Required other materials: Other, Internship handbook, Published on LMS

# Logistics Engineering

**Year 3**

Trimester 2

OSIRIS-code: BIP3.NETLOG-18C

Course name: Network Logistics

Study load: 3 EC (=84 hours)

Coordinator: Eric Hopstaken

Lecturer(s): Eric Hopstaken, Peter Kole

Learning objective(s): Upon completion of this study component you are able to:

- critically discuss and analyse the control side of logistic chains and networks;
- critically discuss and analyse the aspects connected with the management and organization of chain and network integration;
- analyse data and to develop a logistic network with reference to social economical and technical trends.

Content description: In this study component, the following content is covered:

- location and allocation of stock points in logistic chains;
- SRM (supplier relationship management);
- horizontal partnerships;
- corporate Social Responsibility and sustainability.

Language: EN

Teaching activity: Lecture

Examination: Written exam 70%  
Group assignment 30%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

OSIRIS-code: BIP3.ELOG-18C

Course name: E-Logistics

Study load: 3 EC (=84 hours)

Coordinator: Peter Kole

Lecturer(s): Peter Kole

Learning objective(s): Upon completion of this study component you are able to:

- reflect on historical and future developments of E-Logistics, the demands of consumers and the impact of E- logistics on the Supply Chain and logistic concepts;
- you will be able to generate logistic solutions for online retail.

Content description: In this study component, the following content is covered:

- E-business, E-commerce & M-commerce: What is it and how are they connected? Online selling and processes: understanding of the unique functionalities in case of digital selling and processing goods;
- online consumers: What do they want and which supply chain barriers do they recognize to prevent them from buying?;
- internet and business models: How did internet change existing business models and processes?;
- supply Chain: What is the impact of E-commerce on the total Supply Chain, stock, returns, cross border logistics and CO2 emission?;
- warehousing: What are the differences between B2B, B2C and Multi-Channel warehouse operations?;
- the Last Mile: Where does the last mile start, where does it end and what are the challenges?;
- logistic developments and Webshops: Which services, liability and accuracy do the offer and what are the developments?;
- case study: To generate and present solutions for a given E-commerce logistic Case study.

Language: EN

Teaching activity: Lecture

Examination: Written exam 70%  
Group assignment 30%

Mark: Marks, F, MO

Required literature: Visser, H.M. and A.R. van Goor. Logistics: Principles and Practice : a demand and supply chain management approach. Heruitgave. Wolters-Noordhoff (ISBN 9789081649117)

Required other materials: --

OSIRIS-code: BIP3.ENT-18C

Course name: Entrepreneurship

Study load: 3 EC (=84 hours)

Coordinator: Erik van Diffelen

Lecturer(s): Piet Berkers, Erik van Diffelen, Semi Torun

Learning objective(s): Upon completion of this study component you are able to:

- set up a business plan based on thinking up new concepts that are related to the logistical knowledge domain;
- discover and identify all aspects related to starting up new business;
- how to manage a company on a financial, logistic, commercial, legal, human resource and international way;
- integrate management, marketing, production and financial knowledge in relation to entrepreneurship;
- discover and develop personal intra/entrepreneurial skills in a team and individually (awareness).

Content description: In this study component, the following content is covered:

- introduction to entrepreneurship / intrapreneurship;
- concept development, idea creation, market exploration;
- setting up a business plan, based on Lean canvas / Business Model Canvas;
- becoming acquainted with The Lean Startup-methode;
- entrepreneurship and legal aspects;
- management game T-Challenge. This is an online simulation game in which you experience to manage a fruit juice company with disappointing results. The factory produces and sells ice tea and sports drinks. You will be challenged with your team to turn in into a successful company, in competition with other teams.

Language: EN

Teaching activity: Lecture, Project

Examination: Group assignment 80%  
Individual assignment 20%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

OSIRIS-code: BIP3.QUAMG-18C

Course name: Quality Management

Study load: 3 EC (=84 hours)

Coordinator: Eric Hopstaken

Lecturer(s): Danielle Dielemans, Eric Hopstaken, Azadeh Irajifar

Learning objective(s): Upon completion of this study component you are able to:

- use a business case and withgoing dataset and turn it into a concrete project-charter or Kaizen-form and execute this project based on the Lean- or Six Sigma-methodology in a project team;
- learn from concrete projects during filed-trips to companies where lean and/or six sigma prijects are run/implemented
- follow the right sequential steps according slide-information and literature study, know how to utilize and apply the linked tools from the LSS toolset in order to get to the required results step-by-step;
- identify, present and implement improvements to get to the agreed results (in project-charter or Kaizen-form) in a professional way in a team-setting (incl. a control- and hand-over plan).

Content description: In this study component, the following content is covered:

- historical perspective and evolution of Quality Management;
- background of Lean and Six Sigma;
- phases and tools per phase within a Lean- or Six Sigma project.

Language: EN

Teaching activity: Project, Lecture, Training

Examination: Group assignment 100%  
Project

Mark: Marks, F, MO

Required literature: Sheila Shaffie Shahbaz Shahbazi. LEAN SIX SIGMA - 36 hour course. (ISBN 9780071743853)

Required other materials: --



OSIRIS-code: BIP3.PORTL-18C

Course name: Port Logistics

Study load: 3 EC (=84 hours)

Coordinator: Dirk Broek

Lecturer(s): Dirk Broek

Learning objective(s): Upon completion of this study component you are able to:

- master the transshipment and storage of multimodal bulk freight flows within a port. Both on economic and engineering level;
- recognize the organization structures of a port and also in a broader perspective;
- recognize the different kind of competition on both public and private level;
- define the role of port authorities.

Content description: In this study component, the following content is covered:

- technical features for storage and transshipment of multimodal bulk freight flows;
- the economic knowledge of the use of these technical features within a logistic chain;
- economic trade-off (ETO) and social pros and cons of an existing or new port in a broader perspective with central focus on the port;
- the powerplay within the triptych of shipping companies, terminals and port authorities;
- the different forms of government of a port authority;
- the economic importance for seaports in the fields of containers, dry and liquid bulk;
- the economic importance of a seaport in the field of energy, freight flows and fuels.

Language: EN

Teaching activity: Lecture, Project

Examination: Written exam 80%  
Group assignment 20%

Mark: Marks, F, MO

Required literature: Dong-wook Song and others. Maritime logistics: a guide to contemporary shipping and port management. (ISBN 9780749472689)

Required other materials: --

OSIRIS-code: BIP3.ICTLOG2-19C

Course name: Data Management & ICT

Study load: 3 EC (=84 hours)

Coordinator: Irene Meeuwesen

Lecturer(s): Jef Houtepen, Irene Meeuwesen

Learning objective(s): Upon completion of this study component you are able to:

- advise about design and requirements, selection and use of information and operating systems for logistic application in companies. The advice pays attention to managerial, organisation and technological aspects;
- understand the possibilities of types of different applications and understand the business rules that belong to MRP, production and warehouse management, and know how to apply them;
- link theory and practise through assignments in SAP Business One;
- datamanagement;
- business intelligence.

Content description: In this study component, the following content is covered:

- the role, use and developments of information thechnology in companies;
- an introduction to systems used in supply chain management;
- material Requirements Planning; demand forecast and generating purchase and production proposals;
- production Order Management; the production order life cycle and operating systems;
- marketing and Service (CRM), management information (BI).

Language: EN

Teaching activity: Lecture, Training

Examination: Computer exam 100%

Mark: Marks, F, MO

Required literature: Visser and van Goor. Logistics: Principles and Practice : a demand and supply chain management approach. Heruitgave. eigen uitgave (ISBN 9789081649117)

Required other materials: Handouts, articles, magazines, tbd, Published on LMS

OSIRIS-code: BIP3.SIM-18C

Course name: Simulation

Study load: 2 EC (=56 hours)

Coordinator: André Gijsberts

Lecturer(s): André Gijsberts

Learning objective(s): Upon completion of this study component you are able to:  
- to do a simulation study on a simple logistical problem.

Content description: In this study component, the following content is covered:  
- recognition of a simulation problem;  
- analyzing a system regarding capacity, utilization, bottleneck, waiting and throughput times;  
- building the problem in simulation software Flexsim;  
- executing a complete simulation study with regard to validation, design of experiments, analyzing results and writing a report.

Language: EN

Teaching activity: Training, Lecture

Examination: Group assignment 100%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

# Logistics Engineering

**Year 3**

Trimester 3

OSIRIS-code: BIP3.IS2-19

Course name: Internship 2

Study load: 20 EC (=560 hours)

Coordinator: Irene Meeuwesen

Lecturer(s): Irene Meeuwesen

Learning objective(s): Upon completion of this study component you are able to:

- after the internship you are able to tackle a practical problem- with control and feedback- to report and present;
- admission for internship:  
You have to arrange your own internship, bearing in mind that the internship and assignment have to be approved by the internship coordinator. The terms and conditions to be admitted to the internship are mentioned in the Teaching and Examination Regulations SLM.

Content description: In this study component, the following content is covered:

- you will be working on the job during 14 weeks and carry out an assignment for the company or institution;
- you report the results in a report and explain these results during graduation;
- you mention your learning experiences in a process report.

Coordinators;

- LOG: Irene Meeuwesen / Luuk Koopman;
- ISD: Leigh Stevens.

Language: EN

Teaching activity: Placement

Examination: Individual assignment 100%

Mark: Project

Required literature: --

Required other materials: --

# Logistics Engineering

**Year 4**

Semester 1

OSIRIS-code: BMSC.20MINOR

Course name: The Modern Supply Chain

Study load: 30 EC (=840 hours)

Coordinator: Eric Hopstaken

Lecturer(s): Piet Berkers, Danielle Dielemans, Jan van Elderen, Eric Hopstaken, Luuk Koopman, Jan Verhey, Marcel Wouterse

Learning objective(s): Upon completion of this study component you are able to:

- Apply knowledge and theories about supply chain management gathered earlier during previous years;
- Review a supply chain related problem or challenge of a company or organisation within the broader context of that company or organisation (strategic/tactical/operational)
- Outline the importance and value of finding a solution for above mentioned problem or challenge
- Establish the detailed objectives and a step-by-step approach for achieving, presenting and proving a possible design
- Create the business case that justifies working on this design (iterative process)
- Define and apply a full-fledged design science research methodology, based on different theories; apply in this methodology a systematic literature review, including data-collection and analysis on validity and reliability.
- Develop a design (artefacts) for the solution by combining different elements of supply chain management into a new pattern/structure;
- Demonstrate the value of your created solution (artefact) in a suitable context;
- Validate the value of created solution in the broader context of the specific supply chain within your company/organisation;
- Present and sell the solution in order to create buy-in; persuade all stakeholders within the organisation;
- Deliver a paper (mind you, this is based on applied science, so practically oriented, but based on scientific- and literature research!), which is publicationworthy in a supply chain magazine

Content description: In this study component, the following content is covered:

- Experience what it is and how it feels to make a solid improvement in the supply chain of an existing company or organization, which is based on design science and its 'magnitude' of improvement/change was proven with a real-life concept/artifact/pilot.
- Lots of (hard) teamwork, collaboration, personal development

Language: EN

Teaching activity: Project, Lecture, Training

Examination: Group assignment 60%  
Individual assignment 40%

Mark: P, F, MO

Required literature: --

Required other materials: --



OSIRIS-code: BCW.20MINOR

Course name: Modern Business in a Changing World

Study load: 30 EC (=840 hours)

Coordinator: Sannie van Boxtel

Lecturer(s): Piet Berkers, Sannie van Boxtel, Danielle Dielemans, Erik van Diffelen, Bas Groot, Azadeh Irajifar, Luuk Koopman

Learning objective(s): Upon completion of this study component you are able to:

- successfully plan, execute, and evaluate change initiatives

Content description: In this study component, the following content is covered:

- Change Management
- Project Management
- Learning & Development
- Strategy & Innovation
- Behavior

Language: EN

Teaching activity: Project, Lecture, Training

Examination: Studio 50%  
Lecture 50%

Mark: Project

Required literature: J. Kotter. Leading Change. Harvard Business School Publishing (ISBN 9781422186435)

Required other materials: --

OSIRIS-code: ACS.20MINOR

Course name: Crowd Safety in Hubs & Events

Study load: 30 EC (=840 hours)

Coordinator: Justin van de Pas

Lecturer(s): Mark van Eijk, Justin van de Pas

Learning objective(s): Upon completion of this study component you are able to:

- Clear understanding of important concepts of Crowd Management and application of crowd modelling
- Ability to discuss application of crowd safety management (with concepts such as planning, licensing and operations) and its relevance to the wider legal, organisational, regulatory and risk management framework
- Ability to discuss appropriate risk assessment methodologies for crowd safety, how this impacts on legislation and guidance, and/or which areas of crowd safety need improvement
- Demonstrating understanding of core principles and applications of the tools. Providing some detail of use of models, information they provide and how this assists in the risk analysis of crowd dynamic.
- Clear understanding of important concepts within mobility and urban design by applying and analysing integral alignment, design and planning processes and urban and spatial design.
- Ability to discuss the application of crowd simulations by analysing crowd simulations, applying measuring and monitoring tools, queuing theories and crowd simulations.
- Ability to discuss application of stakeholder analysis, procedures and permits and law and regulations.
- Ability to discuss appropriate risk assessment methodologies for crowd safety, how this impacts on legislation and guidance, and/or which areas of crowd safety need improvement
- Communicate the information about the tools to users and/or team, with the goal to communicate with the audience
- Analysing an event or venue, including four core modelling elements.
- Recognise group behavior and understanding causality
- (Deep) Researching and correct referencing
- The use of clear graphics

Content description: In this study component, the following content is covered:

- Crowd safety backgrounds and dynamics
- Crowd safety, modelling and monitoring
- Crowd safety, design & organization
- Crowd simulations and the use of simulation
- Crowd safety, decisions & response
- Crowd simulations
- (Event) Logistics
- Mobility and Accessibility
- Overtourism

Language: EN

Teaching activity: Lecture, Training, Project

Examination: Group assignment 50%  
Individual assignment 50%  
Process (obligatory)

Mark: Marks, F, MO

Required literature: Still, G.Keith. Introduction to Crowd Science. (ISBN 9780367866709)

Required other materials: --

OSIRIS-code: BPGM.20MINOR

Course name: Kennislab People and Goods on the Move

Study load: 30 EC (=840 hours)

Coordinator: Jeroen Weppner

Lecturer(s): Jeroen Weppner

Learning objective(s): Upon completion of this study component you are able to:

- conducting independent research
- write a good quality essay
- prepare a good quality research report
- giving and receiving feedback
- independently search for and consult information sources

Content description: In this study component, the following content is covered:

- understand how the process of a large event comes about
- understand which stakeholders are involved in the process
- understand the roles and interests involved
- provide substantiated advice for improving the organization

Language: EN

Teaching activity: Project

Examination: Group assignment 60%  
Individual assignment 40%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

OSIRIS-code: BUR.20MINOR

Course name: Urban Retrofitting

Study load: 30 EC (=840 hours)

Coordinator: Paul van de Coevering

Lecturer(s): Paul van de Coevering, Zhan Goosen, Ed Ravensbergen, Ineke Spapé

Learning objective(s): Upon completion of this study component you are able to:

- assess the current situation in your international case study area with the STEEP and SWOT analysis tools;
- create integrated concepts with hardware, software and orgware interventions for the redevelopment and revitalization of your case study area which are grounded in theory and are alligned with the results of your SWOT analysis;
- create a detailed integrated plan to tackle societal issues related to urban sprawl and car dependency in your case study area;
- provide a coherent storyline from the SWOT analysis to concepting and the specific measures;
- conduct targeted Urban Guerilla tactics in practice.

Content description: In this study component, the following content is covered:

- in depth analysis of a case study area in North America;
- differences in land use and transportation networks between European and Northern American cities;
- societal challenges related to urban sprawl and a car dependent culture;
- hardware, software and orgware measures and their synergies;
- designing and planning from masterplan to detailed street designs;
- urban Guerilla tactics and connection with hardware, software orgware measures;
- effective presentation skills; poster presentations, videos, brochures and other means of conveying your message.

Language: EN

Teaching activity: Project

Examination: Individual assignment 50%  
Group assignment 50%

Mark: Marks, F, MO

Required literature: --

Required other materials: --

# Logistics Engineering

**Year 4**

Semester 2

OSIRIS-code: B4.SC-18\*

Course name: Graduation Thesis

Study load: 30 EC (=840 hours)

Coordinator: Irene Meeuwesen

Lecturer(s): Irene Meeuwesen

Learning objective(s): Upon completion of this study component you are able to:

- to tackle, to report and to present a practical problem as a starting professional.

Content description: In this study component, the following content is covered:

- you have to arrange your own internship and assignment. The internship coordinator measures the assignment on size, complexity and draft. During the graduation process you will work on location;

Coordinators;

- ILE/ILN: Irene Meeuwesen / André Gijsberts;
- BE: Monique van Herpen.

Language: EN

Teaching activity: Graduation

Examination: Lecture 100%

Mark: Project

Required literature: --

Required other materials: --

## Description competences

<b>A1</b>	<b>Developing policy 1</b> Conducts research based on analysis and translates external and internal developments into consequences for the organisation and its stakeholders.
<b>A2</b>	<b>Developing policy 2</b> Formulates policy in one or more logistics domains.
<b>A3</b>	<b>Developing policy 3</b> Contributes to the development of business relations, chains and networks in conjunction with economic developments.
<b>B1</b>	<b>Steering activities 1</b> Manages the execution of processes within the logistics domains.
<b>B2</b>	<b>Steering activities 2</b> Is able to set up, control and improve logistics processes,
<b>B3</b>	<b>Steering activities 3</b> Applies management techniques.
<b>B4</b>	<b>Steering activities 4</b> Provides support in the development, implementation and evaluation of change processes within organisations.
<b>C1</b>	<b>Implementing 1</b> Plans logistics operations and ensures that they are implemented.
<b>C2</b>	<b>Implementing 2</b> Identifies problems within logistics operations, makes diagnoses and determines corrective actions, and ensures that these actions are implemented.
<b>C3</b>	<b>Implementing 3</b> Monitors performance in all logistics domains.
<b>D1</b>	<b>Social and communicative subcompetencies 1</b> Cooperates with others in a professional setting and contemplates, together with others, the objectives and structure of the organisation, in which multidisciplinary, interdisciplinarity, collegiality and leadership are key characteristics.
<b>D2</b>	<b>Social and communicative subcompetencies 2</b> Communicates effectively and in a business-like manner in the current corporate language and in relevant professional situations on all levels.
<b>D3</b>	<b>Social and communicative subcompetencies 3</b> Takes into account (inter)national cultural differences.



<b>E1</b>	<b>Self-directing subcompetency 1</b> Manages and regulates his/her own development in terms of learning.
<b>E2</b>	<b>Self-directing subcompetency 2</b> Has a professional attitude
<b>E3</b>	<b>Self-directing subcompetency 3</b> Operates in a professionally, ethically and socially responsible manner.
<b>E4</b>	<b>Self-directing subcompetency 4</b> Contributes to the development of his or her future profession, in all aspects.

#### Description of the competence levels

Level	Character of assignment	Character of context	Degree of dependency
I	<ul style="list-style-type: none"> <li>- Simple</li> <li>- Structured</li> <li>- Applies well-known methods</li> </ul>	<ul style="list-style-type: none"> <li>- Familiar</li> <li>- Simple</li> <li>- Monodisciplinary</li> </ul>	<ul style="list-style-type: none"> <li>- Steering guidance</li> </ul>
II	<ul style="list-style-type: none"> <li>- Complex</li> <li>- Structured</li> <li>- Uses well-known in varying situations</li> </ul>	<ul style="list-style-type: none"> <li>- Familiar</li> <li>- Complex</li> <li>- Monodisciplinary practice-based</li> </ul>	<ul style="list-style-type: none"> <li>- Coaching guidance</li> </ul>
III	<ul style="list-style-type: none"> <li>- Complex</li> <li>- Unstructured</li> <li>- Uses methods in new situations</li> </ul>	<ul style="list-style-type: none"> <li>- Unfamiliar</li> <li>- Complex</li> <li>- Multidisciplinary practice-based</li> </ul>	<ul style="list-style-type: none"> <li>- Independent</li> <li>- Guidance for coaching if necessary</li> </ul>



Games



Media



Hotel



Facility



Built Environment



Logistics



Tourism



Leisure & Events



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