



AERES
UNIVERSITY OF
APPLIED SCIENCES
DROTEN

ECTS Information Package International Horticulture & Management (IHM)

2018-2020

Content

1	Outline IHM 2018-2020	1
1.1	Course Outline International Horticulture & Management 2018-2020	1
1.2	Matrix of competences and minors	2
1.3	Schedule International Horticulture & Management	3
2	Module and module descriptors	4
2.1	International Corporate social responsibility and Quality management systems (HCQH)	4
2.2	International Strategic Innovations in Horticulture (HISH)	6
2.3	International Research and Development Horticulture (HRDH)	8
2.4	International Specialization Plant Horticulture (HSPH)	9
2.5	International Personal Development Horticulture (HPDH)	10
3.	Examination and Assessment Regulations 2018-2019	11

1 Outline IHM 2018-2020

1.1 Course Outline International Horticulture & Management 2018-2020

1st semester: week 36, 2018 – week 5, 2019			EC
	Corporate social responsibility, Quality management systems In this module you will learn more about quality management and how to apply this in a company in a sustainable way. The module will provide the basis for an employee who is responsible for quality management and gives future entrepreneurs or employees insight in the way of thinking in quality management and social responsibility.	HCQH	13
	International Strategic Innovations in Horticulture This module is designed to train students in entrepreneurship and innovative competencies. Students will be taught the necessary professional skills to apply knowledge of high-tech plant production systems, financial management, and strategic product and business management	HSIH	13
2nd semester: week 7, 2019 – week 27, 2019			
	International Research and Development Horticulture In this module the student will act as researcher and advisor. Students are developing a research protocol, data collection and analysis, reporting about research results and use of modern techniques.	HRDH	13
	International Strategic Innovations in Horticulture In this module the student has a role as advisor or entrepreneur. You design a strategic business plan with international aspects and give oral and written advise. This includes professional communication with a grower, gathering and analysing data and formulate advice which are consistent with the objectives of the grower.	HSIH	13
1st and 2nd semester: week 36, 2018 – week 27, 2019			
	Personal Development At Aeres UAS we not only focus on practical and theoretical knowledge but also on personal growth. In APL4L we will reflect on student's development and prepare students for their professional life.	HPDH	8
	Total EC		60

In the fourth and last year of the International Horticulture & Management program (60 EC), the student will do an internship and write a thesis. Besides, every student will follow 2 minors in Plant Breeding or International advisor or International Farm Management. The module guides of these minors will be available in the ECTC guide 2019-2020 which will be published on the Aeres website approximately half of April 2019.

1.2 Matrix of competences and minors

The next matrix provides an overview of the various competences you will attain after finalizing the IHM program.

IHTM	Year 1					TOTAAL
	1. HCQH	2. HSIH	3. HRDH	4. HSPH	5. HPDH	
Final Qualifications						
1. To acquire projects and give advice in the (international) agro business and food sector	X	X				2
2. To design and execute applied research			X			1
3. To prepare a strategic business plan		X				1
4. To purchases, develop and marketing of products and services		X		X		2
5. To translate and apply policies	X			X		2
6. To council and communicate on areas of cultivation and product	X			X		2
7. To manage projects, processes and people			X		X	2
8. To apply and secure quality systems within the agro chain	X					1
9. To act entrepreneurial and reflect		X			X	2
Aeres competencies						
1. To show leadership capabilities					X	1
2. To cooperate	X				X	2
3. To present	X		X	X	X	4
4. To research	X		X	X	X	4
5. To innovate		X	X		X	3
6. To organize			X		X	2
7. To introspect					X	1
8. To enterprise		X			X	2
9. To endorse sustainable behaviour		X		X	X	3
10. To appreciate the global perspective	X				X	2

1.3 Schedule International Horticulture & Management

week		week type	International Horticulture & Management program 2018-2019	Activities
36	3 Sept	L0	Introduction week	HCQH HSIH HPDH
37	10 Sept	L1	Start classes	
38	17 Sept	L2		
39	24 Sept	L3		
40	1 Oct	L4		
41	8 Oct	L5		
42	15 Oct	L6		
43	22 Oct	**	Autumn break	
44	29 Oct	L7		
45	5 Nov	T1	Exams + assessments	
46	12 Nov	T1	Exams + assessments	
47	19 Nov	L1		HCQH HSIH HPDH
48	26 Nov	L2		
49	3 Dec	L3		
50	10 Dec	L4		
51	17 Dec	L5		
52	24 Dec	**	Christmas break	
01	31 Dec	**	Christmas break	
02	7 Jan	L6		
03	14 Jan	L7		
04	21 Jan	T2	Exams + assessments	
05	28 Jan	T2	Exams + assessments	
06	4 Feb			HRDH HSPH HPDH
07	11 Feb	L1		
08	18 Feb	**	Spring holiday / Project work	
09	25 Feb	L2		
10	4 Mar	L3		
11	11 Mar	L4		
12	18 Mar	L5		
13	25 Mar	L6		
14	1 Apr	L7		
15	8 Apr	T3	Exams + resits T1 and T2	
16	15 Apr	T3	Exams + resits T1 and T2	Exam period 3
17	22 Apr	L1	<i>22 April: Easter Monday - University closed</i>	HRDH HSPH HPDH
18	29 Apr	**	<i>Holidays; University closed Whole week</i>	
19	6 May	L2		
20	13 May	L3		
21	20 May	L4		
22	27 May	L5	<i>Thursday 30 and Friday 31 May – Ascension day; University closed</i>	
23	3 June	L6		
24	10 June	L7	<i>10 June: Pentecost Monday - University closed</i>	
25	17 June	L8		
26	24 June	T4	Exams + assessment	
27	1 July	T4	Exams + assessment	Exam period 4
28	8 July		12-7: Graduation international students	
29	15 July	**	Summer holidays	
...	
33/	12 Aug	T5	Resits	Exam Period 5
34	19 Aug	T5	Resits	Exam Period 5

2 Module and module descriptors

2.1 International Corporate social responsibility and Quality management systems (HCQH)

Module overview

International CSR and QMS in Horticulture (HCQH) (Corporate social responsibility and Quality management systems)			
Coordinator:	H. Schilt (SCH)	Credits:	13

Parts	ECTS	Name	Examination	Exam in term	Literature
HCQH01	3	Assessment: QMS and/or CSR analysis for a company	Assessment (compulsory attendance)	2	To be found in Study manual
HCQH02	2	Course Statistics	Written exam	1	To be found in Study manual
HCQH03	2	Course QMS and CSR in horticulture	Written exam	2	To be found in Study manual
HCQH04	2	Course Export management and intercultural communication	Written exam	1	To be found in Study manual
HCQH05	2	Course Product quality and Postharvest	Written exam	2	To be found in Study manual
HCQH06	2	Practical training Product quality and Postharvest	Poster (compulsory attendance)	2	To be found in Study manual

Prerequisites:	Minimum of two year bachelor program in horticulture
Occupational task:	In this module you will learn more about quality management and how to apply this in a company in a sustainable way. The module will provide the basis for an employee who is responsible for quality management and gives future entrepreneurs or employees insight in the way of thinking in quality management and social responsibility.
Role:	Quality manager
Working methods:	Lectures, practical trainings, excursions, external audits and external assignment
Fields of knowledge:	Goals (the student):
2. Course Statistics	<ul style="list-style-type: none"> Can explain and apply important basics and concepts of statistics.
3. Course QMS and CSR in horticulture	<ul style="list-style-type: none"> Can explain 'quality' and its importance in the sector. Is able to assess a company on aspects related to quality. Can analyse the chain and map quality requirements. Is able to identify surrounding factors of an organisation and incorporate these in an improvement plan. Is able to identify stakeholders interests and implement these in an improvement plan. Can apply fundamental requirements of food safety. Can explain quality management systems which are applicable in horticulture. Can evaluate different aspects of corporate social responsibility which are applicable in horticulture.
4. Course Export management and intercultural communication	<ul style="list-style-type: none"> Can explain implications of export in relation to (EU) regulations. Can map the currently applicable laws and regulations (legislation) for production. Can apply this legislation in an organisation. Can look at, analyses, and resolve problems from the perspective of cultural differences.

5. Course Product quality and Postharvest	<ul style="list-style-type: none"> • Can describe in which way some companies implement quality oriented production in horticulture. • Can describe the effect of different measures on postharvest product quality. • Is able to analyses the factors influencing the quality of food during harvest, transport, storage and (industrial) processing
6. Practical training Product quality and Postharvest	<ul style="list-style-type: none"> • Can perform postharvest tests. • Can collect and process quality data on flowers and vegetables. • Can execute an audit on QMS and CSR.
Aeres competences:	
<ul style="list-style-type: none"> • To cooperate • To present • To research • To appreciate the global perspective 	
Final qualifications:	
<ul style="list-style-type: none"> • 1. To acquire projects and give advice in the (international) agro business and food sector • 5. To translate and apply policies • 6. To council and communicate on areas of cultivation and product • 8. To apply and secure quality systems within the agro chain 	

2.2 International Strategic Innovations in Horticulture (HISH)

Module overview

International Strategic Innovations in Horticulture (HSIH)			
Coordinator:	W. ter Beek (BKW)	Credits:	13

Parts	ECTS	Name	Examination	Exam in term	Literature
HSIH01	3	Assessment: Business plan and oral advice during consultancy meeting	Assessment (attendance compulsory)	2	To be found in study manual
HSIH02	2	Course Strategic product management	Presentation	1	To be found in study manual
HSIH03	2	Course Strategic business management	Written exam	2	To be found in study manual
HSIH04	2	Course Financial management	Written exam	2	To be found in study manual
HSIH05	2	Course High-tech Plant Production Systems	Written exam	2	To be found in study manual
HSIH06	2	Practical Training High-tech Plant Production Systems	Video clip (attendance compulsory)	2	To be found in study manual

Prerequisites:	Minimum of two year bachelor program in horticulture
Professional task:	Design a strategic business plan with international aspects and give oral and written advise. This includes professional communication with a grower, gathering and analysing data and formulate advice which are consistent with the objectives of the grower.
Role:	Agricultural extension officer/ Advisor/ Entrepreneur
Methods:	Lectures, practical trainings, excursion, group work
Fields of knowledge:	Goals (the student):
2. Course Strategic product management	<ul style="list-style-type: none"> • Can apply innovation as a tool to improve current situation, either in technology, product or organisation. • Is able to select the right product-market combinations. • Can design a plan for the introduction of a new product / a product for a new market.
3. Course Strategic business management	<ul style="list-style-type: none"> • Can develop a sector vision based on found historic developments and using appropriate strategic analyse techniques (e.g. DESTEP, Porter). • Can design labour planning in the specific cultivations or company setting. • Can explain the outline of main topics of (European) tax legislation which are important for agricultural entrepreneurs (e.g. income, turn-over- and transfer taxes). • Is able to use knowledge about EU-agricultural policy in the planning of mid- and long term farm development.
4. Course Financial management	<ul style="list-style-type: none"> • Is able to read a financial annual report of a company. • Is able to analyse the financial situation of a horticultural company. • Can give a substantiated judgment about the key figures of the company based on internal and external comparison and advise the entrepreneur on optimisation of this financial technical figures.
5. Course High-tech Plant Production Systems	<ul style="list-style-type: none"> • Can select the most appropriate plant production system for a given situation. • Can explain the effect of (HPS of LED) assimilation lighting and greenhouse climate on crop development.

	<ul style="list-style-type: none"> • Can explain the effects of different methods for fertigation and cultivation measures on crop development. • Can explain how a grower can use data from crop monitoring to adjust crop development in a desired way.
6. Practical Training High-tech Plant Production Systems	<ul style="list-style-type: none"> • Is able to monitor crop growth and crop development. • Is able to calculate and prepare nutrient solutions for crops from liquid or solid fertilizers. • Can operate automated systems for irrigation and climate management.
Aeres competences:	
<ul style="list-style-type: none"> • To innovate • To enterprise • To endorse sustainable behaviour 	
Final qualifications:	
<ul style="list-style-type: none"> • 1. To acquire projects and give advice in the (international) agro business and food sector • 3. To prepare a strategic business plan • 4. To purchases, develop and marketing of products and/or services • 9. To act entrepreneurial and reflect 	

2.3 International Research and Development Horticulture (HRDH)

Module Overview

International Research and Development Horticulture (HRDH)			
Coordinator:	B. Gehner (GEB)	Credits:	13

Parts	ECTS	Name	Examination	Exam in term	Literature
HRDH01	4	Assessment: Presentation Results of own experiment + statistical analysis	Assessment (attendance compulsory)	4	To be found in Study manual
HRDH02	2	Course Experimental design	Written exam	3	To be found in Study manual
HRDH03	3	Course Applied statistics	Computer exam	4	To be found in Study manual
HRDH04	2	Training Research project plan	Assignment (attendance compulsory)	3	To be found in Study manual
HRDH05	2	Practical Training plant monitoring	Assignment (attendance compulsory)	4	To be found in Study manual

Prerequisites:	Minimum of two year bachelor program in horticulture
Occupational task:	Researcher, advisor
Role:	Design, plan, and execute research. Process and present results
Working methods:	Lectures, practical training, excursion, assignments
Fields of knowledge:	Goals (the student can):
2. Course Experimental design	<ul style="list-style-type: none"> Translate research questions to appropriate experiments. Design experiments which can be used to collect data for statistical analysis.
3. Course Applied statistics	<ul style="list-style-type: none"> Save and process data in a structured way (in Excel). Collect and process quantitative and qualitative data, using the right testing methods (e.g. SPSS) based on gained statistical insights. Assess the published results of research in magazines on accuracy and reliability.
4. Training Research project plan	<ul style="list-style-type: none"> Find and understand (scientific) information on topics related to horticulture. Write an overview of the available information on a topic, which can be used as an introduction to a report, thesis or scientific article. Refer according to the APA-norm.
5. Practical training Plant monitoring	<ul style="list-style-type: none"> Use different relevant methods to collect data from plants, from determination of fresh/dry weight to the use of sensors.
Aeres competences:	<ul style="list-style-type: none"> To present To research To innovate To organize
Final qualifications:	<ul style="list-style-type: none"> 2. To design and execute applied research 7. To manage projects, processes and people

2.4 International Specialization Plant Horticulture (HSPH)

Module Overview

International Specialization Plant Horticulture (HSPH)			
Coordinator:	I. van Meggelen (MEI)	Credits:	13

Parts	ECTS	Name	Examination	Exam in term	Literature
HSPH01	3	Assessment: Write a technical article for growers + oral examination	Assessment (attendance compulsory)	4	To be found in Study manual
HSPH02	2	Course Plant Breeding and biotechnology	Written exam	4	To be found in Study manual
HSPH03	2	Course Crop Health	Written exam	3	To be found in Study manual
HSPH04	2	Course Plant Physiology	Written exam	3	To be found in Study manual
HSPH05	2	Course Precision farming	Assignment	4	To be found in Study manual
HSPH06	2	Training Professional communication	Compulsory	4	To be found in Study manual

Prerequisites:	Minimum of two year bachelor program in horticulture.
Occupational task:	Deepen knowledge in a field of expertise and write a technical article on this topic.
Role:	Specialist – researcher, extension officer, adviser, press
Working methods:	Lectures, excursion, training, coaching
Fields of knowledge:	Goals (the student can):
Courses Training	<ul style="list-style-type: none"> • Demonstrate that he/she has gained specialized knowledge in the field of plant breeding/biotechnology, crop health, plant physiology and precision farming. • Write a solid and professional specialised article that shows that the student has become a specialist in the self-chosen topic; • Defend the written article orally and justify choices made.
Aeres competences:	
<ul style="list-style-type: none"> • To present • To research • To endorse sustainable behaviour 	
Final qualifications:	
<ul style="list-style-type: none"> • 4. To purchases, develop and marketing of products and/or services • 5. To translate and apply policies • 6. To council and communicate on areas of cultivation and product 	

2.5 International Personal Development Horticulture (HPDH)

Module Overview

International Personal Development Horticulture (HPDH)			
Coördinator:	I. van Meggelen	Credits:	8

Parts	ECTS	Name	Examination	Exam in term	Literature
HPDH01	1	Personal development 1	Assignment (attendance compulsory)	2	To be found in Study Manual
HPDH02	1	Personal development 2	Assignment (attendance compulsory)	4	To be found in Study Manual
HPDH03	2	Dutch horticultural experience	Assignment (attendance compulsory)	2	To be found in Study Manual
HPDH04	4	Proof of proficiency	Assignment	4	To be found in Study Manual

Prerequisites:	Minimum of two year bachelor program in Horticulture
Occupational task:	Personal development
Role:	Junior professional
Working methods:	Lectures, excursions, assignments
Fields of knowledge:	Goals (the student):
Personal development	<ul style="list-style-type: none"> Is able to describe and explain his/her progress in relation to the Aeres competences and obtain level 2 by means of providing examples using STARR method.
Dutch horticultural experience	<ul style="list-style-type: none"> Is able to describe the Dutch horticultural sector.
Proof of proficiency	<ul style="list-style-type: none"> Is able to show in an authentic situation 5 competences on level 2.
Aeres competences:	
<ul style="list-style-type: none"> To show leadership capabilities To cooperate To present To research To innovate To organize To introspect To enterprise To endorse sustainable behaviour To appreciate the global perspective 	
Final qualifications:	
<ul style="list-style-type: none"> 7. To manage projects, processes and people 9. To act entrepreneurial and reflect 	

Klik hier als u tekst wilt invoeren.

3. Examination and Assessment Regulations

2018-2019

The current course regulations are in conformity with the *Examenregeling Aeres UAS Dronten* and they represent the distinguishing features of the international courses at Aeres UAS. All courses comply with the key study and qualification objectives of the curricula from which they stem. These qualifications are assumed in the courses, and the learning objectives presented here are only the specific ones, not what is Bachelor generic.

The course regulations are published online. Use the following link to find the regulations:
<https://www.aereshogeschool.nl/over-aeres-hogeschool/publieke-verantwoording/onderwijs-en-examenregeling>.