

## INTERNATIONAL FOOD & AGRIBUSINESS COURSE CATALOGUE 2021-2022





### **Preface**

The IFA course catalogue lists all courses offered for the 2021-2022 academic year in the International Food & Agribusiness (IFA) programme at the HAS University of Applied Sciences.

The catalogue gives specific information about the courses provided during the 2021-2022 academic year including course content, credits, learning outcomes, activities and methods, assessment, course coordinator and study materials.

The information presented in the catalogue was composed in July 2021 and is subject to minor changes. The final and leading information is published in the course study manual for each module within the IFA study program. For more information about the IFA study programme and enrolment, please visit our website www.hasinternational.nl.

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### Introduction

The IFA program consists of a 4-year programme that is divided into a propaedeutic year and a main phase of 3 years. The main phase is divided into the core phase and the qualified to start phase. Students can obtain a total of 60 credits for each academic year. Table 1 outlines the IFA curriculum as offered in academic year 2021-2022.

Table 1: IFA curriculum academic year 2021-2022

	Term 1	Term 2	Term 3	Term 4				
	Global Food Systems IF1421 (6)	Agri Food Business IF1423 (6)	Business Economics IF1425 (8)	Work Experience				
Year 1	Intro Food IF1422 (7)	Primary Production IF1424 (8)	Biobased Economy IF1426 (6)	Placement IF1427 (14)				
	Personal Leadership IF1420 (5)							
	Business & Marketing IF2441 (8)	Sustainable Value Chains IF2443 (8)	Business Development 1 IF2445 (6)	Business Development 2 IF2447 (6)				
Year 2	Circular Agri-food Production I IF2442 (6)	Circular Agri-food Production II IF2444 (6)	Food Systems Governance IF2446 (8)	Extension on Sustainability IF2448 (8)				
		Personal Lead	ership IF2450 (4)					
Year 3	Interns	hip (30)	Electives (30), e.g. Internship Minor					
V4	Specialisati	on (30), e.g.	Professional Assignment IF4450 (28)					
Year 4	Future Foo	od Systems	Professional Assessment IF4403 (2)					

A description of the various courses in year 1, 2 and 4 is provided in the following chapters. More information on test and examinations can be found in the TER, about the program in the Study manual and specific details about the courses in the course manuals.

# Year 1

Course information	Year of study: 2021-2022 Version: 03-2021
Study Programme	International Food and Agribusiness
Course unit code	IF1420
Course unit title	Personal Leadership YEAR 1
Location	Den Bosch
Coordinator	Milouska Lensing-Molenaars (MMi)
Type of course unit	☑ Mandatory ☐ Not mandatory
Language of instruction	English
Credits (ECTS)	5
Moment of delivery	Year 1 Term 1-4
Prerequisites	None
Application deadline	1-5-2021
Learning outcomes	The main goal of the Personal Leadership modules is to teach the student how to instigate his or her personal development based on self-knowledge, personal motivation, learning goals, self-reflection, and feedback. The modules offers opportunities to reflect on personality, behavior, and attitude. It supplies students with tools for change and improvement and offers them guidelines for reaching personal objectives and explore their talents, values and ambitions. Moreover, the Personal Leadership module teaches students how to critically self-reflect in relation to others, leading to personal leadership within relevant social, international and ethical dimensions.  In term 1 the first-year students are welcomed at HAS, and are given the opportunity to get better acquainted with fellow-students & IFA staff members in the international classroom. In this scope students participate in an intensive (online) introduction week, including various inspiration sessions and workshops related to Future Food Systems, System Thinking and International Business Development. Moreover they meet with their coach to start drawing up their own personal development plan (PDP).  In term 2 the focus lies on getting to know their Talents and learning how to turn these into Strengths. They take the Gallup Strengths Finder test and learn how to draw up personal and professional learning aims, as well as how to reflect on those. Students also receive their preliminary study advice this term.  In term 3 the Personal Leadership activities help the students to prepare for their Work Experience Placement (WEP) in term 4 and Domain focus for year 2, being either Primary Production or Food.  In term 4 the students use all inputs from the previous terms to reflect on their personal and professional development over the past year, and describe their plans and learning aims for next year.  Lastly, within Personal Leadership the students are also introduced to the basics of ethics.
Learning outcomes	After successful completion, the student is able to:  Term 1:  Connect with co-students &staff effectively (teambuilding)  Understand the purpose of personal development (plan) & self-reflection

Learning activities and teaching methods	developm Term 3:  - Understa Term 4:  - Write a pe  - Describe Method Introduction Coach cons Personal Le. Self-manage	e learning nent plan nd the use ersonal reflan ethical week (on ultations (radership (hement hou	aims, based of turning plection report dilemma pelline) min. 1 per tenomework)	personal to personal to personally e	onal talents, as parallels and talents into strengents on the personal encountered (e.g.	gths developme . in WEP cor	nt plan ntext) y load (hours) 30 10 40
	Lectures & v	vorkshops					25
	Ethics (linke	d to 3 PBL	cases)				15
	Total						140
Test matrix							
Part	Type of examination	Weighting factor	Bottom grade	Rating scale	Individual/ Group work	Time of examination	Resit
Coaching year 1: self-reflection report (incl. ethical dilemma and 20 self-management hours)	ASSI	0	PASS	pass/ fail	IND	Wk 1-10	tbd
** The retake options depend on t exact substitute assignment or re-							
Study materials							
Title	Author		Status		Туре	Code/cor	nments
Study Manual Personal Leadership YEAR 1	Lensing-Mol	enaars,	Required		Digitally available	Updated	each year
StrengthsFinder 2.0, Discover Your CliftonStrengths	Rath, T.		Required		Book	ISBN 978- 6	1-59562-015-
Estimated cost							
Cost item	Approximat	e cost			Comments		
Online introduction (activities & workshops)	p.m.				Depending on circumstances	-	uation)
StrengthsFinder 2.0, Discover Your CliftonStrengths	Approx. €25				Including uniques SF test. Please second-hand!) otherwise do naccess code.	ue access co buy a NEW version, as	ode for online (= NOT you
Remarks	-						

Course information		Year of study: 2021-2022 Version: def				
Study Programme	International Food and Agribusiness					
Course unit code	IF1421					
Course unit title	Global Food Systems					
Location	Den Bosch					
Coordinator	Neeltje Bekkers (BeN)					
Type of course unit	Mandatory □ Not mandatory					
Language of instruction	English					
Credits (ECTS)	6					
Moment of delivery	Year 1 Term 1					
Prerequisites	None					
Application deadline	1-5-2021					
Content	In this module Global Food Systems (GFS) divers	se elements of the global food				
	system are discussed. Important topics are system	J				
	architecture of a food system. Different stakeho					
	outcomes of a food system (food security, waste	-				
Learning outcomes	The module contributes to the following progra					
	1. Improving Sustainability of the Global Agri-Fo	·				
	4. Creating Change	,				
	5. Value Based Leadership					
	6. Project Management					
	7. Conducting Applied Research					
	After successful completion, the student is able Q1 Student understands the global food system  - Understand the architecture, functioning, dyn food system.  - Understand the concept of sustainability  - Understand the principles of systems thinkin Q4 Student identifies different stakeholders and values  - Identify relevant stakeholders and their role Q5 Student shows awareness of personal talent  - Understands the basics of giving & receiving formula to the standard of the student actively contributes to projects as possible of the student actively contributes to projects as possible of the student actively contributes to projects as possible of the student actively contributes to projects as possible of the students of the	g d recognizes different opinions and in the global food system is and competences feedback recognize it art of a team signment; provide and ask for ed research ry, Greenl and online sources; able to les at HBO level; and differentiate				
Learning activities and teaching	Method	Study load (hours)				
methods	Lectures, related activities, private study	88				
	PBL (Problem Based Learning, 5 cases)	80				
	Total	168				

Test matrix							
Part	Type of examination	Weighting factor	Bottom grade	Rating scale	Individual/ Group work	Time of examination	Resit
Written Test	WRT	1	5.5	1-10	IND	Wk 9	Term 2
PBL	ASSI	0	pass	Pass/fail	IND	Wk 1-8	Term 2
Study materials							
Title	Author		Status		Туре	Code/comments	
Reader Global Food Systems	Bekkers, N		Required		Digitally available	Updated each year	
Study Manual Global Food Systems	Bekkers, N		Required		Digitally available	Updated each year	
PBL Study Manual	Bekkers, N		Required		Digitally available	Updated each year	
Estimated cost							
Cost item	Approximat	e cost			Comments		
Vimeo film PBL	€5						
Excursion	€25						
Remarks	-	-					

Course information	Year of study: 2021-2022
	Version: 03-2021
Study Programme	International Food and Agribusiness
Course unit code	IF1422
Course unit title	Introduction Food
Location	Den Bosch
Coordinator	Sandra van den Berg (BeSa)
Type of course unit	☑ Mandatory ☐ Not mandatory
Language of instruction	English
Credits (ECTS)	6
Moment of delivery	Year 1 Term 1
Prerequisites	None
Application deadline	1-5-2021
Content	This module consists of different elements; Informative lectures and the group project are on the topics 'Food Processing' and 'Nutrition'. Supporting seminars/lectures on 'Chemistry' and 'Reporting' and 'Referencing' are also part of this module  'Food processing' gives the student an introduction in general production and processing aspects of food. Students will learn about the main components of ingredients and their application for food.  The topic 'Nutrition' gives students insight into dietary patterns, food products and their consequences on health. They will learn about macronutrients, micronutrients, and water, the recommendations on daily food intake, the purpose of dietary guidelines and how to interpret the nutritional needs of a human being.  Some supporting seminars on 'Chemistry' will provide basic knowledge on substances and reactions in food.  Throughout the course students work on a group project analyzing ingredients and processes for a food production chain. They will become familiar with the necessary processing techniques in the production chain as well as the nutritional value of the product and how it fits in a healthy diet.  Lectures on reporting and referencing are scheduled to help students plan and write the report during this module but also other modules yet to come.
Learning outcomes	The module contributes to the following program qualifications:  2. Contributing to Sustainable Innovation in Agri-Food Production and Consumption;  6. Project management;  7. Doing Research  After successful completion, the student:  Q2 Student understands agro-food production and consumption, their interrelations and sustainability impact  - Understands food processing systems, storage and its involved actors

Learning activities and teaching methods	<ul> <li>Understands nutrition levels and requirements</li> <li>Understands properties and conversion of substances in food</li> <li>Analyses food processing and safety, and nutritional value and health and sustainability impact of food product</li> <li>Q6 Student actively contributes to projects as part of a team</li> <li>Completes steps in a project in a timely manner</li> <li>Applies a clear structure (format) in a project report</li> <li>Applies correct referencing in reporting</li> <li>Q7 Student executes consecutive steps in applied research</li> <li>Evaluates properties of food, using a hypothesis</li> <li>Method</li> <li>Study load (hours)</li> <li>Lectures, related activities, private study</li> <li>118</li> <li>Group project</li> </ul>						
	Total	ect					168
Test matrix	Total						100
Part	Type of examination	Weighting factor	Bottom grade	Rating scale	ndividual/ Group work	rime of examination	Resit
Written test on Processing and Nutrition	WRT	7	4.0	1-10	IND	Wk 9	Next term
Project 'Commodity to consumer product'	PROJ	3	4.0	1-10	GRP	Wk 10	Next year
Study materials							
Title	Auth	or	Status Type			Code/comments	
Study Manual, 2021	Berg, S. van	den	Required		Digitally available	Updated each year	
Project Management, A practical Approach	R. Grit		Required		Book	ISBN 978-90-01-57562- 5	
Doing research - the hows and whys of applied research	Nel Verhoev	/en	Req	uired	Book	ISBN 9789462364820 (4th edition)	
Estimated cost							
Cost item  Project Management, A  practical Approach	Approxima €30	ite cost			This book is a		ears of the
Doing research - the hows and whys of applied research	€50				This book is used in all years of the IFA programme		
Group Excursion (by bus)  Remarks	n.a.						

Course information		of study: 2021-2022				
0		on: 03-2021				
Study Programme	International Food and Agribusiness					
Course unit code	IF1423					
Course unit title	Agri-Food Business (AFBus)					
Location	Den Bosch					
Coordinator	Hielke van der Meulen (MeHi)					
Type of course unit	Mandatory □ Not mandatory					
Language of instruction	English					
Credits (ECTS)	6					
Moment of delivery	Year 1 Term 2					
Prerequisites	None					
Application deadline	1-5-2021					
Content	<ul> <li>This course teaches students about:</li> <li>The functioning of international agri-food supply tomato paste, chicken, and beer</li> <li>Principals of marketing and sales</li> </ul>	y chains, illustrated by those of				
Learning outcomes	The module contributes to the following program of	qualifications:				
-	3. Contributing to New Business Models					
	4. Creating change					
	6. Project Management					
	After successful completion, the student is able to:					
	Q3 Student understands how international food- & agribusinesses operate					
	- Recognise and understand consecutive steps in the manufacturing of agri-food					
	products					
	- Understand the basic elements of logistics					
	- Recognize and understand some fundamentals	of marketing				
	In the project the student will:					
	Q3 Student understands how international food- & - Identify consecutive processes throughout the s - Apply some fundamentals of marketing					
	Q4 Student identifies different stakeholders and red	cognizes different opinions and				
	values  - Remember and understand the basics of communication & giving advice  (building trust)					
	(building trust) - Indicate differences between cultures and describe how this affects					
	communication in and between cultures in an international agri-food business					
	- Give a professional presentation in English					
	Q6 Student actively contributes to projects as part	of a team				
	- Plan project activities in a project team action plan; Write a well-structured					
	project report					
Learning activities and teaching	Method	Study load (hours)				
methods	Theory is provided in weekly instruction lectures	28				
	Excursion	4				
	For the group projects, tutor meetings	12				
	Unsupervised group work on assignments	58				
	Self-study	66				
	Total	168				

Test matrix							
Part	Type of examination	Weighting factor	Bottom grade	Rating scale	Individual/ Group work	Time of examination (duration)	Resit
Written test on Agri-food business	WRT	1	4.0	1-10	IND	Wk 9 (2 hrs)	Next term
Project	PROJ	1	4.0	1-10	GRP	Wk 10	Next year
Study materials							
Title	Author		Status		Туре	Code/co	mments
Global Value Chains – Linking Local Producers from Developing Countries to International Markets (selected chapters), 2012	M.P. van Dij Trienekens	k and J.	Required		Book (digital)	Available	online
Marketing Fundamentals - An International Perspective, Second edition 2013	B.J. Verhage	9	Required		Book	ISBN 978- 81866-1 Noordhof	90-01- f Uitgevers
Study Manual (Agri-Food Business)			Required		Digitally available	Make a print	
Lecture hand-outs, additional literature and articles	Various		Required		Digitally available		
Estimated cost							
Cost item	Approxima	ite cost			Comments		
Marketing Fundamentals - An International Perspective, Second edition 2013	€80				This book will b		oughout the
Group Excursion (by bus)	€20						
Other travel	n.a.				Group work, by	own trans	portation
Remarks	-						

Course information	Year of study: 2021-2022 Version: 03-2021
Study Programme	International Food and Agribusiness
Course unit code	IF1424
Course unit title	Primary Production Systems
Location	Den Bosch
Coordinator	Jeannette van de Steeg
Type of course unit	☑ Mandatory ☐ Not mandatory
Language of instruction	English
Credits (ECTS)	8
Moment of delivery	Year 1 Term 1
Prerequisites	None
Application deadline	1-6-2020
Content	Primary production is broad and diverse. The module focussing on crop and animal
	production using four 'inputs';  ✓ Fertilization and Feed ✓ Management (e.g. labour, machinery and housing) ✓ Breeding and Genetics ✓ Health and Diseases
	We look at the impact of crop- and animal production on global climate change, food waste and loss of biodiversity. Not so much as a result of, but by studying the production systems from different perspectives.
	- We will compare sustainable intensification with organic farming as production systems, to obtain diverse views on how to cope the challenges in production.
Achieved Learning Outcomes prior to this module	To participate successfully, students should be able to: Q4 Creating Change - Identify relevant stakeholders and their role in the global food system Q5 Value based Leadership - Understands the basics of giving & receiving feedback - Understand what an ethical dilemma is and recognize it
	Q6 Project Management - Cooperate with fellow students in a group assignment; provide and ask for information
	<ul> <li>Q7 Conducting Applied Research</li> <li>Able to search for literature in the (HAS) library, GreenI and online sources; able to select information from explicitly given sources at HBO level</li> <li>Able to determine main issue for an identified problem in a guided setting</li> </ul>
Learning outcomes	This module contributes to the following IFA qualifications:  2. Contributing to sustainable innovation in Agri-food production  4. Creating Change  5. Value Based Leadership  6. Project Management  7. Conducting Applied Research
	After successful completion, the student is able to: Q2 Student understands agro-food production and consumption, their interrelations and sustainability impact - Understanding of differences in primary production systems (crop and animal) and its impacts on production levels - Understanding of differences in required inputs and outputs, and its impacts - Understanding of relation primary production and sustainability issues

	<ul> <li>During Problem Based Learning sessions learning objectives related to the skills that are practised (Qualification 4, 5, 6 and 7).</li> <li>Q 4 Student identifies different stakeholders and recognizes different opinions and values</li> <li>Indicate differences between cultures and describe how this affects communication in and between cultures</li> <li>Q5 Student shows awareness of personal talents and competences</li> <li>Give and receive feedback, by applying the basic feedback rules</li> <li>Identify an ethical dilemma and make a simple analysis</li> <li>Q6 Student actively contributes to projects as part of a team</li> <li>Cooperate with fellow students in a group assignment; provide and ask for information (PBL skills)</li> <li>Present results in a convincing (structure, form) manner</li> </ul>							
							sk for	
	<ul> <li>Q7 Student executes consecutive steps in applied research</li> <li>Able to find the original sources via Greenl, online and in the (HAS) library; able to select information from implicitly given sources at HBO level, relevant to the problem; and differentiate between principle and sub-issues</li> <li>Perform some basic calculations on a given data set in Excel</li> </ul>							
Learning activities and teaching	Method			<u> </u>			ad (hours)	
methods	Total conta	ct hours					60	
	Self-Study F		rs/case)				96	
	Self-study d						24	
	Self-study d	ialogues (o	ii/case/				68	
	Total					224		
Test matrix						<b>_</b>		
Part	Type of examination	Weighting factor	Bottom grade	Rating scale	Individual/ Group work	Time of examinatior (duration)	Resit	
Written test	WRT	1	5.5	1-10	IND	Wk 9	Next term	
						(2 hrs)		
PBL	ASSI	0	pass	Pass/ fail	IND	(2 hrs) Wk 8	Next year	
PBL Study materials	ASSI	0	pass	,	IND		Next year	
	ASSI	0	pass Status	,	IND			
Study materials			·	,		Wk 8	nments	
Study materials  Title  Study manual Primary  Production Systems  Cultures and Organisations –	Author  Van de Stee  Hofstede, H	g, J	Status	,	<b>Type</b> Digitally	Wk 8  Code/cor  Updated	nments	
Study materials  Title  Study manual Primary  Production Systems	<b>Author</b> Van de Stee	g, J	Status Required	,	Type Digitally available	Wk 8  Code/cor  Updated	nments each year	
Study materials  Title  Study manual Primary  Production Systems  Cultures and Organisations –  software of the mind  Lecture hand-outs, additional	Author  Van de Stee  Hofstede, H Minkov	g, J	Status Required Required	,	Type Digitally available Book Digitally	Wk 8  Code/cor  Updated	nments each year	
Study materials  Title  Study manual Primary Production Systems  Cultures and Organisations – software of the mind  Lecture hand-outs, additional literature and articles	Author  Van de Stee  Hofstede, H  Minkov  Various	g, J ofstede &	Status Required Required	,	Type Digitally available Book Digitally	Wk 8  Code/cor  Updated	nments each year	
Study materials  Title  Study manual Primary Production Systems  Cultures and Organisations – software of the mind  Lecture hand-outs, additional literature and articles  Estimated cost  Cost item	Author Van de Stee Hofstede, H Minkov Various  Approxima	g, J ofstede &	Status Required Required	,	Type Digitally available Book Digitally available	Wk 8  Code/cor  Updated	nments each year	
Study materials  Title  Study manual Primary Production Systems  Cultures and Organisations – software of the mind  Lecture hand-outs, additional literature and articles  Estimated cost  Cost item  Group Excursion (by bus)	Author  Van de Stee  Hofstede, H Minkov  Various  Approxima €20	g, J ofstede &	Status Required Required	,	Type Digitally available Book Digitally available  Comments	Code/cor Updated	nments each year 0071664189	
Study materials Title Study manual Primary Production Systems Cultures and Organisations – software of the mind Lecture hand-outs, additional literature and articles Estimated cost Cost item	Author Van de Stee Hofstede, H Minkov Various  Approxima	g, J ofstede &	Status Required Required	,	Type Digitally available Book Digitally available	Code/cor Updated	nments each year 0071664189	

Course information	Year of study: 2021-2022 Version: 03-2021						
Study Programme	International Food and Agribusiness						
Course unit code	IF1425						
Course unit title	Business Economics						
Location	Den Bosch						
Coordinator	Mieke Rovers-Lenssen (RoMi)						
Type of course unit	Mandatory □ Not mandatory						
Language of instruction	English						
Credits (ECTS)	8						
Moment of delivery	Year 1 Term 3						
Prerequisites	None						
Application deadline	01-05-2021						
Content	<ul> <li>This module covers:</li> <li>Introduction to business economics, which looks at how to interpret and develop basic financial analysis, calculations, and documents.</li> <li>Practical knowledge of how a business can determine its overall financial position and look at the impact of business decisions on the financial sustainability of a business.</li> <li>Proper usage of KPIs through developing intermediate level of Excel and Mathematics.</li> </ul>						
	<ul> <li>3. Contributing to international business development</li> <li>6. Project management</li> <li>7. Conducting applied research</li> <li>After successful completion, the student is able to: Q3: Student understands how international food- &amp; agribusinesses operate</li> <li>Explain financial management principles in given examples.</li> <li>Carry out financial structure assessment of international agri-food businesses.</li> <li>Use the cost structure and apply costing principles.</li> <li>Explain used financials in annual reports and draw conclusions.</li> <li>Recognize and understand different organization structures, management, and leadership styles of companies (SMEs)</li> <li>Recognize and understand the internal/external factors that determine internal organization/management</li> <li>Recognize and understand logistical steps and principles in international agrifood supply chains</li> <li>Q6: Student actively contributes to projects as part of a team</li> <li>Plan and monitor project activities in a project team action plan; Prepare and monitor a project budget</li> <li>Q7: Student executes consecutive steps in applied research</li> <li>Perform some basic calculations (mean, standard deviation) on a given data set in</li> </ul>						
	Q7: Student executes consecutive steps in applied research						

Learning activities and teaching	Method					Study loa	ad (hours)
methods	Thematic le	ectures					21
	Working led	tures (inte	ractive; com	npulsory)			8
	Guest lectu	res by field	experts (co	mpulsory	)	5	
	Group proje	ect: busine:	ss assignme	ent incl. tu	torials (prep		28
	WEP; comp	ulsory)					
	Excel/math		cl. self-study	У			26
	Self-study /	exam					136
	Total						224
Test matrix							
Part	Type of examination	Weighting factor	Bottom grade	Rating scale	ndividual/ Group work	Fime of examination (duration)	Resit
Written test	WRT	7 5.5 1-10		IND	Wk 9 (2 hrs)	Next term	
Project Business (review, plan + infographic)	PROJ 3		4.0	1-10	GRP	Wk 1-10	TBD
Study materials							
Title	Author		Status		Туре	Code/cor	nments
Study manual	M. Wolters, Rovers-Lens		Required		Digitally available	Updated each year	
The Basics of Financial	W. Koetzier,	, R.	Required		Book	9789001738334	
Management; 5th edition	Brouwers						
Project Management, A practical Approach	R. Gritt		Required		Book	Already in	possession
The Basics of Financial Management Exercises; 4th edition	W. Koetzier, Brouwers, C Leppink		Recomme	ended	Book	97890018	892340
The Basics of Financial	W. Koetzier,	, R.	Recomme	ended	Book	97890018	89258
Management Answers and	Brouwers, C	).					
Solutions; 2nd edition	Leppink						
Estimated cost							
Cost item	Approxima	ite cost in	€		Comments		
Required literature/books	€85 + 80			Useful as refere entire IFA prog		al for the	
Other	(€50 + 30)				Recommended	to practice	,
Remarks	-						

Course information	Year of study: 2021-2022 Version: 03-2021					
Study Programme	International Food and Agribusiness					
Course unit code	IF1426					
Course unit title	Biobased Economy					
Location	Den Bosch					
Coordinator	rank de Bont (BoF)					
Type of course unit	Mandatory □ Not mandatory					
Language of instruction	English					
Credits (ECTS)	6					
Moment of delivery	Year 1 Term 3					
Prerequisites	None					
Application deadline	1-5-2021					
	Fossil resources are, however, finite and their use results in emissions that affect the environment and human health. Therefore, there is a tendency to change towards a Biobased Economy (BBE). In a BBE, biomass and biomolecules are the building blocks for (non-)food products, such as colorants, fuels, and construction materials. However, biobased products are only sustainable when the biomass/biomolecules are produced sustainably. This course focusses on renewable production of biomass, considering the cycling of essential elements that are needed to grow biomass. Biomass is complex and can be used to produce multiple products. The student will learn to apply the value vs. volume theory including ethical dilemmas to indicate business opportunities in the BBE. Finally, the student will investigate the impact of production on climate change, even in the BBE, by calculating a carbon footprint.					
prior to this module	Q2 (Contributing to Sustainable Innovation in Agri-Food Production and Consumption):  - Understand food processing systems  - Understand properties and conversion of substances in food  - Understand the differences in primary production systems (crop and animal) and its impacts on production levels  - Understand the differences in required inputs and outputs, and its impacts  - Understand the relation between primary production and sustainability issues  Q5 (Value based Leadership):  - Formulate a learning aim based on feedback received, and ask for related feedback & feedforward  Q6 (Project Management):  - Cooperate with fellow students in a group assignment; provide and ask for information  - Present results in a convincing (structure, form) manner  Q7 (Conducting Applied Research)  - Perform some basic calculations (mean, standard deviation) on a given data set in Excel with given data  - Find the original sources via Greenl, online and in the (HAS) library					

- Value external information, if helped, starts forming an opinion based on this come with a main question and sub-questions, in their own words, with help of fellow students or tutor  The module contributes to the following program qualifications:  2. Contributing to Sustainable Innovation in Agri-Food Production and Consumption  5. Value Based Leadership  6. Project management  7. Conducting Applied Research  After successful completion, the student is able to:  Q2: Student understands agro-food production and consumption, their interrelations and sustainability impact  Explain the relevance of a Biobased Economy  Explain the relevance of a Biobased Economy  Explain the Biobased Economy in present and near future and give an overview of biomass, conversion technologies and bio-energy/biomaterials  Quantify the nutrient belance in the supply chain and come up with possible solutions  Quantify the flows (input and impact) of carbon based on the processes of a farm (footprinting).  During Problem Based Learning sessions learning objectives related to the skills that are practised (Qualification 5, 6 and 7).  Q5 Student shows awareness of personal talents and competences  Give and receive feedback, by applying the basic feedback rules, being aware of a multicultural setting  Exchange ideas about an ethical dilemma  Q6 Student actively contributes to projects as part of a team  Present results in a convincing (structure, form) menner  Q7 Student executes consecutive steps in applied research  Formulate a main question and useful sub-questions in their own words, based on a given case  Select, analyze and combine information from implicitly given sources with extra information they have found themselves  Select, analyze and combine information from implicitly given sources with extra information they have found themselves  Select sources (secondary data) that are relevant and reliable  Judge external information leading to the formation of an opinion  PBL (Problem Based Learning, 4 cases)  60  Example Particulal (b								
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Exam 2		Lectures and private study	98					
		Practical (biodiesel), incl. preparation	8					
Total 168		Exam	2					
		Total	168					

Test matrix								
Part	Type of examination	Weighting factor	Bottom grade	Rating scale	Individual/ Group work	Time of examination (duration)	Resit	
Written test	WRT	1	5.5	1-10	IND	Wk 9 (2 hrs)	Next term	
PBL + attendance	ASSI	0	pass	pass/ fail	IND	Wk 1-8	Next year	
Study materials								
Title	Author		Status		Туре	Code/co	nments	
Study Manual	Bont, F. de		Required		Digitally available	Updated	each year	
Various articles	-		Required		Digitally available	Updated	each year	
Practical guide Biodiesel	Van der Hou Eerten	'		Digitally available	Updated	each year		
Estimated cost								
Cost item	Approxima	te cost in	€		Comments			
Required literature/books	none							
Remarks	-							

Course information	Year of study: 2021-2022
	Version: 03-2021
Study Programme	International Food and Agribusiness
Course unit code	
Course unit title	Work Experience Placement (WEP)
Location	Den Bosch
Coordinator	Neeltje Bekkers (BeN)
Type of course unit	Mandatory □ Not mandatory
Language of instruction	English
Credits (ECTS)	14 ECTS
Moment of delivery	Year 1 Term 4
Prerequisites	None
Application deadline	1-5-2021
Content	During this module, the student will gain practical work experience in an
	organisation in the agri-food sector. The WEP takes place with a duration of 9 weeks.
	Four days a week the student works in the daily operations of the host organisation.
	One day per week he can work on assignments either from home, or on the premises
	of the organisation. The WEP can take place either in the Netherlands or abroad.
Achieved Learning Outcomes	To participate successfully, students should be able to:
prior to this module	
	Q1 Improving Sustainability of the Global Agri-Food System
	- Understand the architecture, functioning, dynamics and outcomes of the global
	food system - Understand the concept of sustainability
	- Understand the concept of sustainability - Understand the principles of systems thinking
	Q2 Contributing to Sustainable Innovation in Agri-Food Production and
	Consumption
	- Student understands agro-food production and consumption, their interrelations and sustainability impact
	Q3 Contributing to New Business Models
	- Recognize and understand consecutive steps in the manufacturing of agri-food
	products
	- Understand the basic elements of logistics
	- Recognize and understand some fundamentals of marketing
	<ul> <li>Explain financial management principles in given examples.</li> <li>Carry out financial structure assessment of international agri-food businesses.</li> </ul>
	- Use the cost structure and apply costing principles.
	- Explain used financials in annual reports and draw conclusions.
	- Recognize and understand different organization structures, management, and
	leadership styles of companies (SMEs)
	- Recognize and understand the internal/external factors that determine internal
	organization/management - Recognize and understand logistical steps and principles in international agri-
	food supply chains
	Q4 Creating change
	- Identify relevant stakeholders and their role in the system of the WEP organization
	- Remember and understand the basics of communication & giving advice
	(building trust)
	Q5 Value Based Leadership
	- Identify an ethical dilemma and make a simple analysis, and exchange ideas about it.
	about It.

	<ul> <li>Formulate learning aims, based on personal talents, as part of personal development plan</li> <li>Understand the use of turning personal talents into strengths</li> <li>Q6 Project Management</li> <li>Present results in a convincing (structure, form) manner</li> <li>Plan and monitor project activities in a project team action plan; Prepare and monitor a project budget</li> </ul>							
Learning outcomes	The WEP contributes to the following program qualifications:  Map the system of the organisation in a visual way (Q1)  Explain the architecture, functioning, dynamics and outcomes of the organisations' system (Q1)  Describe what is your role in the organisation and the applicable daily activities (Q2)  Describe the different departments and/or processes of the organisation in a clear and visual way (Q2)  Explain how the activities/processed are interrelated and what their impact on sustainability is (Q2)  Apply 3 of the learning outcomes of qualification 3 level 1 (contributing to new business models) to the host organisation.  Identify relevant stakeholders and their role in the system of the WEP organisation (Q4)  Apply basic communication skills in a professional setting (Q4)  Reflect on your personal and professional growth according the STARR method (Q5)  Reflect on the IFA qualifications that you applied during the WEP (Q5)  Write a well-structured project report (Q6)							
		a simple res	search repo	rt for an simpl	e problem in a			
Learning activities and teaching	Method					Study loa	ad (hours)	
methods				EP in organisa <sup>.</sup>	tion		5 288	
	1 day per organisati (9*8h/wee	on)	aring assign	ments (at hon	ne or at the		72	
	Report / V	log					27	
	Total						392	
Test matrix						_		
Part	Type of examination	Weighting factor	Bottom grade	Rating scale	Individual/ Group work	Time of examination (duration)	Resit	
WEP vlog	ASSI	1	5.5	1-10	IND	Week 5	Next term	
WEP report	ASSI	1	5.5	1-10	IND	Week 8	Next term	
Assessment host organization	ASSI	0	-	1-10 formative	IND	Week 9	Next term	
Study materials								
Title	Author		S	tatus	Туре	Code/cor	nments	
Study Manual	Bekkers, N	Bekkers, N. Required Digitally Updated each year available						

Estimated cost							
Cost item	Approximate cost in €	Comments					
Travels	By own/public transportation	Costs depending on where WEP					
		takes place					
Remarks							

# Year 2

Course information	Year of study: 2021-2022 Version: 03-2021
Study Programme	International Food and Agribusiness
Course unit code	IF2441
Course unit title	Business & Marketing
Location	Den Bosch
Coordinator	Du Preez Kritzinger (KrDu)
Type of course unit	✓ Mandatory ☐ Not mandatory
Language of instruction	English
Credits (ECTS)	8
Moment of delivery	Year 2 Term 1
Prerequisites	None
Application deadline	1-5-2021
Content	This module covers:
	<ul> <li>Small &amp; Medium Enterprises (SMEs) analysis</li> <li>Strategic Marketing: consumer- &amp; buying behaviour, research, strategic marketing planning</li> <li>Financial driver assessment as part of developing marketing strategies</li> </ul>
Achieved Learning Outcomes prior to this module	To participate successfully, students should be able to: Q3 Contributing to New Business Models Recognize and understand consecutive steps in the manufacturing of agri-food products Understand the basic elements of logistics Recognize and understand some fundamentals of marketing Explain financial management principles in given examples. Carry out financial structure assessment of international agri-food businesses. Use the cost structure and apply costing principles. Explain used financials in annual reports and draw conclusions. Recognize and understand different organization structures, management, and leadership styles of companies (SMEs) Recognize and understand the internal/external factors that determine internal organization/management Recognize and understand logistical steps and principles in international agri-food supply chains Q4 Creating change Remember and understand the basics of communication & giving advice (building trust) Q5 Value Based Leadership Formulate learning aims, based on personal talents, as part of personal development plan Understand the use of turning personal talents into strengths Q6 Project Management Present results in a convincing (structure, form) manner Plan and monitor project activities in a project team action plan; Prepare and monitor a project budget
Learning outcomes	The module contributes to the following programme qualifications:  3. Contributing to New Business Models  4. Creating Change  5. Value-based leadership  6. Project management  7. Conducting Applied Research

After successful completion, the student is able to:

Q3 Student identifies opportunities in agri-food markets and international supply chains and with that contributes to business development

- Analyse a company, its market, and develop a marketing strategy.
- Understand and analyse the key aspects of family business and a Small Medium Enterprise (SME).
- Identify the financial drivers of agri-food businesses as part of developing marketing strategies.

Q4. Student advices a single company on sustainable improvement in the global agri-food sector

- Formulate an advice for an SME on a marketing assignment

Q5 Student evaluates personal talents and competences, and reflects on ethical issues, leading to personal leadership

- Give and receive feedback in projects, in order to reflect on personal development

Q6 Student organizes and executes a project and collaborates in teams and with the client

- Write a structured and complete project proposal for an external client
- Q7 Student executes applied research and contributes to its design
- Apply various research methodologies for collection of (primary) data of acceptable quality
- Apply interview techniques, case studies
- Analyse and judge collected data for discussion and formulating conclusions and advice)

Learning	activities	and	teac	hing
methods				

Method	Study load (hours)
Thematic lectures	15
Working lectures (interactive)	10
Guest lectures	2
Company visit	8
Group project: analysis SME + marketing assignment	65
Private study / exam	40
Total	224

#### Test matrix

Part	Type of examination	Weighting factor	Bottom grade	Rating scale	Individual/ Group work	Time of examination	Resit
Written test	WRT	1	4.0	0-10	IND	Wk 9 (2hrs)	Next term
Project	ASSI	2	4.0	pass/ fail	GRP	Wk 10	Next term

#### Study materials

Title	Author	Status	Type	Code/comments
Study Manual	Kritzinger, D.	Required	Digitally	Updated each year
			available	
Marketing Fundamentals - An	Verhage, B.J.	Required	Book	Already in possession
International Perspective,				(ISBN 9789001853228)
Second edition 2013				

Lecture hand-outs, add. literature and articles	Various	Required	Digitally available	Indicated per year	
The basics of financial management	M.P Brouwers, W. Koetzier, O.A. Leppink	ier, O.A.		Already in possession, if not: reco edition 5 ISBN: 9789001738334 (per Sept. 2021)	
Organisation & Management; an International Approach	Marcus, J. & N. van Dam	Recommended		ISBN 9789001895648	
Project Management, A practical Approach			Book	Already in possession	
Doing research - the hows and whys of applied research	Nel Verhoeven (4th edition)	' '		Already in possession	
Estimated cost					
Cost item	Approximate cost		Comments		
Literature/books	€80 for recommended additional books (if no		Useful as reference material for the entire IFA programme		
Group excursion (by bus)	€15				
Other travel	About €25		Small excursion / group work, b own transportation. Based on estimated costs for public trans		
Remarks	-				

Course information	Year of study: 2021-2022 Version: 03-2021
Study Programme	International Food and Agribusiness
Course unit code	IF2442 & IF2444
Course unit title	Circular Agri-Food Production (1 & 2)
Location	Den Bosch
Coordinator	Frank de Bont (BoF)
Type of course unit	Mandatory □ Not mandatory
Language of instruction	English
Credits (ECTS)	IF2442: 6 EC / IF2444: 6 EC
Moment of delivery	Year 2 Term 1 & 2
Prerequisites	None
Application deadline	1-5-2021
Content	The current food system is unsustainable: resources are depleted, waste streams are not reused and diets are not healthy. Meanwhile, agricultural production is an increasing resource for materials and chemicals in a biobased economy. In this course students will learn current opportunities to optimize the production and consumption in the food system, based on their dimensions. Students will execute a research project based on their own experimental data. In the domain choice (Food or Primary Production) students will learn about current technological developments and possible solutions to promote a sustainable system.  The courses Circular Agri-Food Production 1 & 2 will be offered as one course of 20 weeks.
Achieved Learning Outcomes prior to this module	<ul> <li>Q2 (Contributing to Sustainable Innovation in Agri-Food Production and Consumption):</li> <li>Explain the relevance of a Biobased Economy</li> <li>Explain the main (biobased) processes occurring on planet earth</li> <li>Explain the Biobased Economy in present and near future and give an overview of biomass, conversion technologies and bio-energy/biomaterials</li> <li>Quantify the food versus fuel dilemma and come up with possible solutions</li> <li>Quantify the nutrient balance in the supply chain and come up with possible solutions</li> <li>Quantify the flows (input and impact) of carbon based on the processes of a farm (foot printing).</li> <li>Q7 (Conducting Applied Research):</li> <li>Perform some basic calculations (mean, standard deviation) on a given data set in Excel with given data</li> <li>Formulate a main question and useful sub-questions in their own words, based on a given case</li> <li>Select, analyze and combine information from implicitly given sources with extra information they have found themselves</li> <li>Select sources (secondary data) that are relevant and reliable</li> <li>Judge external information leading to the formation of an opinion</li> </ul> And specific for the domain choice:
	<ul> <li>Q2 Food:</li> <li>Understand food processing systems</li> <li>Understanding nutrition levels and requirements</li> <li>Understand properties and conversion of substances in food</li> <li>Q2 Primary production systems:</li> </ul>

- Understand the differences in primary production systems (crop and animal) and its impacts on production levels
   Understand the differences in required inputs and outputs, and its impacts
  - Understand the relation between primary production and sustainability issues

#### Learning outcomes

The module contributes to the following program qualifications:

- 2. Contributing to Sustainable Innovation in Agri-Food Production and Consumption
- 7. Conducting Applied Research

After successful completion, the student is able to:

Q2: Student analyses (international) developments and opportunities towards sustainable agrofood production and consumption

- Term 1 IF2442
  - Student can evaluate options to valorize waste streams of food production systems
  - Student can compute the amount of streams and resources in food the production system
- Term 2 IF2444
  - Student can illustrate the impact of valorizing options on resources, environment and health

Q7: Student executes applied research and contributes to its design

- Term 1 IF2442
  - Describe relevant research methodologies (experiments)
  - Write a theoretical background using up to date and trustworthy information sources
  - Formulate and test a hypothesis
  - Choose proper methods to answer the research question and justify the use of the methods.
- Term 2 IF2444
  - Formulate and test a hypothesis
  - Collect data in a correct and organised manner
  - Discuss results and methods
  - Formulate conclusions and recommendations

And specific for the domain choice:

Q2 Food (Term 2 - IF2444)

- A student can assess interventions to promote sustainable diets and food security
- A student can examine Innovations in technological developments in food processing and health and sketch possible impact for the future

Q2 Primary production systems (Term 2 – IF2444)

- A student can suggest innovations to promote agro-ecolocial or sustainable intensification practices
- A student can examine current and future innovations in primary production systems and sketch possible impact on the future

### Learning activities and teaching methods

Method	Study load (hours)
Lectures and inspiration sessions	48
Company visits	24
Practicals (in lab, in field or at home)	40
Tutor meetings	20
Project work	64
Self study	136

	Exams				4			
	Total					336		
Test matrix IF2442 – Circular Agri-	st matrix IF2442 – Circular Agri-Food Production 1							
Part	Type of examination	Weighting factor	Bottom grade	Rating scale	Individual/ Group work	Time of examination	Resit	
Written test Circular Agri-Food Production	WRT	1	4.0	1-10	IND	Wk9	Next term	
Project Circular Agri-Food Production 1	ASSI	0	-	Formative	GRP	Wk 1-10	Next term**	
** The retake options depend on the exact substitute assignment or re-		_	_				•	
Test matrix IF2444 – Circular Agri-	Food Product	tion 2						
Part	Type of examination	Weighting factor	Bottom grade	Rating scale	Individual/ Group work	Time of examination	Resit	
Oral test Circular Agri-Food Production	ORAL	3	4.0	1-10	IND	Wk9	Next term	
Project Circular Agri-Food Production 2	ASSI	1	4.0	1-10	GRP	Wk 1-10	Next term**	
** The retake options depend on the exact substitute assignment or re- Study materials		•	_					
Title	Author		Status		Туре	Code/cor	nments	
Study manual Circular Agri- Food Production	Bont, F. de		Requir	red	Digitally available	Updated	each year	
Doing Research - the Hows and Whys of Applied Research	Nel Verhoeven (4th Required Book edition)		Book	Already in possession				
Estimated cost								
Cost item	Approximat	e cost			Comments			
Travel costs excursions	€75 If covid permits: ap				its: approx.	3 company		
Literature	(€50) If not in possession yet							
Remarks	New course; will be offered for the first time in term 1 & 2 of study year 2021-2022.							

Course information	Year of study: 2021-2022 Version: 04-2021
Study Programme	International Food and Agribusiness
Course unit code	IF2443
Course unit title	Sustainable Value Chains
Location	Den Bosch
Coordinator	Bram van Helvoirt (HeBr)
Type of course unit	✓ Mandatory ☐ Not mandatory
Language of instruction	English
Credits (ECTS)	8
Moment of delivery	Year 2 Term 2
Prerequisites	None
'	1-5-2021
Application deadline Content	
Content	<ul> <li>Within the Sustainable Value Chains module, the following topics are covered:</li> <li>Market transformation &amp; sustainability initiatives;</li> <li>Voluntary sustainability standards (certification);</li> <li>Supply chain management, logistics and distribution;</li> <li>Quality management in global supply chains;</li> <li>Global food trade via global food chains and commodity markets;</li> <li>Price volatility and business mitigation strategies;</li> <li>Responsible &amp; inclusive business.</li> </ul>
Achieved Learning Outcomes	Q1 Student understands the global food system and its outcomes
prior to this module	<ul> <li>Understand the architecture, functioning, dynamics and outcomes of the global food system.</li> <li>Understand the concept of sustainability</li> <li>Understand the principles of systems thinking</li> <li>Q3 Student understands agro-food production and consumption, their interrelation and sustainability impact</li> <li>Recognize and understand consecutive steps in the manufacturing of agri-food products</li> <li>Identify consecutive processes throughout the supply chain of a food product</li> <li>Recognize and understand logistical steps and principles in international agri-food supply chains</li> <li>Q5 Student shows awareness of personal talents and competences</li> <li>Understands the basics of giving &amp; receiving feedback</li> <li>Understand what an ethical dilemma is and recognize it</li> <li>Q6 Student actively contributes to projects as part of a team</li> <li>Plan project activities in a project team</li> <li>Complete steps in a project in a timely manner</li> <li>Apply a clear structure (format) in a project report</li> <li>Present project results in a convincing (structure, form) manner</li> <li>Apply correct referencing in reporting</li> <li>Write a well-structured project report</li> </ul>
Learning outcomes	The module contributes to the following program qualifications:  1. Improving Sustainability of the Global Agri-Food System  3. Contributing to New Business Models  5. Value-based leadership  6. Project management  After successful completion, the student is able to:  Q1 Student is able to analyse the governance and sustainability of food systems and
	examine different system interventions

- Understand global food trade via chains and markets and interpret interventions towards sustainable market transformation
- Analyse sustainability challenges in the global food system and argue possible business interventions

Q3 Student identifies opportunities in agri-food markets and international supply chains and with that contributes to business development

- Understand the functioning of and rationale behind trade agreements and contracts, can explain the risks and responsibilities for stakeholders involved
- Understand the history, current situation and future trends and developments in international commodity trade and is able to indicate stakeholders, their roles and responsibilities
- Explain the basics of futures trading
- Explain the basics of trade policy and instruments and the impact of global currencies and oil prices and can estimate the effects thereof
- Interpret the outcomes of a supplier audit
- Draft a basic HACCP plan
- Identify the best matching distribution set up for a given supply chain in agrifood
- Is aware of the implications of supply chain decisions on the development of and management of waste and return flows
- Identify sustainability issues in a supply chain and give suggestions for improvement that make sense in a business environment
- Understands the concepts of Lean and Agile production and the implications thereof on agrifood supply chains
- Analyse the financial implications of sustainability interventions in existing supply chains
- Q5: Student evaluates personal talents and competences, and reflects on ethical issues, leading to personal leadership
- Give and receive feedback in projects, in order to reflect on personal development Q6: Student organizes and executes a project and collaborates in teams and with the
- Compose a project plan for a real-life assignment (including planning/budgeting/risk assessment)

## Learning activities and teaching methods

1	Method	Study load (hours)
ı	Lectures	32
(	Guest lectures	8
-	Tutorials (group project)	5
E	Excursion to PoR	8
	Self-study and project work	191
-	Total	224

Test matrix								
Part	Type of examination	Weighting factor	Bottom grade	Rating scale	Individual/ Group work	Time of examination	Resit	
Written test	WRT	3	4.0	0-10	IND	Wk9	Next term	
Project	PROJ	2	4.0	0-10	GRP	Wk 8	Next year/tbd*	
* The retake options depend on		_	_					
substitute assignment or re-sit p	ossibility, and	does this ir	n consultati	on with the m	nodule coord	inator or otl	ner coaches	
Study materials			<b>a.</b> .					
Title	Author		Status		Type		Code/comments	
Study Manual	Helvoirt, B. van		Required		Digitally available	Updated each year		
Sustainable Value Chains Reader	Helvoirt, B. van		Required		Digitally available	Updated each year		
Changing the Game	Simons, L and Nijhof, A.		Required		Book	New (pub	lished 2020)	
Purchasing and Supply Chain Management A Sustainability Perspective	Johnsen et al.		Required		Book	97811380	64768	
Project Management, A practical Approach	Grit, R.	Grit, R.			Book	Already in	possession	
Cultures and Organisations – software of the mind	Hofstede, Hofstede & Minkov		Required		Book	Already in	possession	
Estimated cost								
Cost item	Approximat	e cost in €	Comments					
Literature/books	Approx. 200	EUR			If not in possession yet			
Excursion	Approx. 25 E	UR			Port of Rotterdam visit			
Company visits	Approx. 25 E	Approx. 25 EUR			Depending	on location		

New course; will be offered for the first time in term 2 of study year 2021-2022

Remarks

Course information	Year of study: 2021-2022 Version: 03-2021					
Study Programme	International Food and Agribusiness					
Course unit code	IF2445					
Course unit title	Business Development 1					
Location	Den Bosch					
Coordinator	Hielke van der Meulen (MeHi)					
Type of course unit	✓ Mandatory ☐ Not mandatory					
Language of instruction	English					
Credits (ECTS)	6					
Moment of delivery	Year 2 Term 3					
Prerequisites	None					
Application deadline	1-5-2021					
Content	This module covers:					
Content	<ul> <li>Introduction into entrepreneurship and (international) business development</li> <li>Development of a concept business plan for a self-elaborated business venture.</li> <li>Statistical analysis of a market survey</li> </ul>					
Achieved Learning Outcomes prior to this module	To participate successfully, students should be able to:					
	<ul> <li>Q3 Contributing to New Business Models</li> <li>Recognize and understand consecutive steps in the manufacturing of agri-food products</li> <li>Understand the basic elements of logistics</li> <li>Recognize and understand some fundamentals of marketing</li> <li>Explain financial management principles in given examples</li> <li>Carry out financial structure assessment of international agri-food businesses</li> <li>Use the cost structures and apply costing principles</li> <li>Explain used financials in annual reports and draw conclusions</li> <li>Recognize and understand different organization structures, management, and leadership styles of companies (SMEs)</li> <li>Recognize and understand the internal/external factors that determine internal organization/management</li> <li>Recognize and understand logistical steps and principles in international agrifood supply chains</li> <li>Q7 (Conducting Applied Research)</li> <li>Perform some basic calculations (mean, standard deviation) on a given data set in Excel with given data</li> <li>Formulate a main question and useful sub-questions in their own words, based on a given case</li> <li>Select, analyze and combine information from implicitly given sources with extra information they have found themselves</li> </ul>					
	<ul> <li>Select sources (secondary data) that are relevant and reliable</li> <li>Judge external information leading to the formation of an opinion</li> </ul>					
Learning outcomes	The module contributes to the following program qualifications:					
Learning outcomes	Q3. New Business Models					
	Q6. Project management					
	Q7. Doing research					
	After successful completion, the student is able to:					
	Q3: Analyse, evaluate and demonstrate the feasibility of a self-elaborated					
	(Sustainable) Business Venture					

Financial Management: analyse & evaluate (sustainable) business opportunities based on self-composed financial statements Management & Entrepreneurship: evaluate / demonstrate the organizational feasibility based on (theories of) management & entrepreneurship in a selfelaborated business venture Logistics: evaluate / demonstrate logistical steps and principles in international agri-food supply chains Business Environment: evaluate / demonstrate inclusive business development approaches in a new business venture in emerging markets Q6: Complete tasks and prioritize within a group project in a multi-disciplinary company context Apply methodologies, techniques and tools of project management Q7 Student executes applied research and contributes to its design Apply various research methodologies for collection of (primary) data of acceptable quality Statistical analysis & calculations on a given data set from a market survey Apply interview techniques, case studies Analyse and judge collected data for discussion and formulating conclusions and advice) Learning activities and teaching Method Study load (hours) methods Thematic lectures 25 Working lectures (interactive) 13 Guest lectures 5 Company visit 5 Group project: business plan (concept) 80 40 Private study / exam **Neighting factor** Rating scale **Group work** Time of Resit Written test Business 2 WRT 5.5 0-10 IND Wk9 Next term Development 1 WRT IND Wk9 Written test Statistics 1 4.0 0-10 Next term Project Business Development PROJ 2 4.0 0-10 GRP Wk 10 Next term Title Author Status Type Code/comments Study Manual Meulen, H. van der Required Digitally Updated each year available Organisation & Management; Marcus, J. & N. van Recommended ISBN 9789001895648 an International Approach Dam S. Mariotti & C. Recommended Entrepreneurship; Starting and Book ISBN 978-0132784085 Operating a Small Business Glackin (2014 etc.,

Prentice Hall)

Marketing Fundamentals - An International Perspective, Second edition 2013	Verhage, B.J.	Required	Book	Already in possession	
Statistics and SPSS	HAS University of Applied Sciences	Required	Reader Digitally available		
The basics of financial M.P Brouwers, W. Koetzier, O.A. Leppink		Required	Book	Already in possession, if not: reco edition 5 ISBN: 9789001738334 (per Sept. 2021)	
Better Practices of Project Management (IPMA)	J. Hermarij	Recommended	Book	ISBN: 9789087537173 ISBN: 9789087537968 (e-book)	
Doing research - the hows and whys of applied research	Nel Verhoeven (4th edition)	Required	Book	Already in possession	
Estimated cost					
Cost item	Approximate cost in €		Comments		
Literature/books		80 for recommended book, 160 for additional books (if not in possession yet)			
Group excursion (by bus)	15				
Other travel	About 25		own transp	rsion / group work, by ortation. Based on costs for public transport	
Remarks	-				

Course information	Year of study: 2021-2022 Version: 04-2021					
Study Programme	International Food and Agribusiness					
Course unit code	IF2446					
Course unit title	Food Systems Governance					
Location	Den Bosch					
Coordinator	Bram van Helvoirt (HeBr)					
Type of course unit	Mandatory □ Not mandatory					
Language of instruction	English					
Credits (ECTS)	8					
Moment of delivery	Year 2 Term 3					
Prerequisites	None					
Application deadline	1-5-2021					
Content	<ul> <li>Within the Food Systems Governance module, the following topics are covered:</li> <li>The human right to food;</li> <li>The (changing) roles, interests and responsibilities of government, private sector and civil society in the governance of food systems;</li> <li>Public and private governance of food systems and global agri-food chains;</li> <li>Food systems governance issues relating to sustainability, justice and democracy;</li> <li>Food trade in relation to food sovereignty;</li> <li>Policy (in)coherence and food politics;</li> <li>Analysis and real-life exploration of international food systems;</li> <li>Moral dilemmas in the global food system and ethical sensitivity.</li> </ul>					
Achieved Learning Outcomes	Q1 Student understands the global food system and its outcomes					
prior to this module	<ul> <li>Understand the architecture, functioning, dynamics and outcomes of the global food system.</li> <li>Understand the concept of sustainability</li> <li>Understand the principles of systems thinking</li> <li>Q3 Student understands agro-food production and consumption, their interrelations and sustainability impact</li> <li>Recognize and understand consecutive steps in the manufacturing of agri-food products</li> <li>Identify consecutive processes throughout the supply chain of a food product</li> <li>Recognize and understand logistical steps and principles in international agrifood supply chains</li> <li>Q5 Student shows awareness of personal talents and competences</li> <li>Understands the basics of giving &amp; receiving feedback</li> <li>Understand what an ethical dilemma is and recognize it</li> <li>Q6 Student actively contributes to projects as part of a team</li> <li>Plan project activities in a project team</li> <li>Complete steps in a project in a timely manner</li> <li>Apply a clear structure (format) in a project report</li> <li>Present project results in a convincing (structure, form) manner</li> <li>Apply correct referencing in reporting</li> <li>Write a well-structured project report</li> <li>Q7 Student executes consecutive steps in applied research</li> <li>Formulate a main question and useful sub-questions in their own words, based on a given case</li> <li>Select, analyze and combine information from implicitly given sources with extra information they have found themselves</li> </ul>					
	<ul> <li>Select sources (secondary data) that are relevant and reliable</li> <li>Judge external information leading to the formation of an opinion</li> </ul>					

# Learning outcomes

The module contributes to the following program qualifications:

- 1. Improving Sustainability of the Global Agri-Food System
- 3. Contributing to New Business Models
- 5. Value-based leadership
- 7. Conducting Applied Research

After successful completion, the student is able to:

Q1 Student applies knowledge on the governance and sustainability of food systems to contribute to a solution in a clearly arranged situation

- Interpret the governance of the global food system from an institutional and political economy perspective;
- Analyse existing policy interventions in the food system to assess their effectiveness;
- Engage with food system actors in a real-life international setting to understand system functioning and outcomes

Q3 Student identifies opportunities in agri-food markets and international supply chains and with that contributes to business development

- Understand international agrifood trade patterns and policy instruments and how these influence the business climate for agrifood SMEs
- Q5: Student evaluates personal talents and competences, and reflects on ethical issues, leading to personal leadership
- Demonstrate intercultural (disciplinary and stakeholder) awareness;
- Reflect on ethical issues
- Q7: Student executes applied research and contributes to its design
- Performing qualitative research

# Learning activities and teaching methods

Method	Study load (hours)
(Guest) lectures	30
Assignment tutorials	10
Other tutorials	10
International excursion + preparation tutorials	80
Excursion to Brussels	10
Self-study (including assignment)	84
Total	224

#### Test matrix

Part	Type of examination	Weighting factor	Bottom grade	Rating scale	Individual/ Group work	Time of examination	Resit
Written test	WRT	1	5.5	0-10	IND	Wk 9	Next term
Assignment	ASSI	1	4.0	0-10	GRP	Wk 8	Next year or tbd*
International Excursion	ASSI	0	PASS	Pass/fail	GRP	Wk 10	Next year or tbd*

<sup>\*</sup>The retake options depend on the reason(s) for failing the assignment/excursion. The lecturer or coach therefore decides upon the exact substitute assignment or re-sit possibility, and does this in consultation with the module coordinator

Study materials							
Title	Author	Status	Туре	Code/comments			
Study Manual	Helvoirt, B. van	Required	Digitally	Updated each year			
			available				
Food Systems Governance	Helvoirt, B. van	Required	Digitally	Updated every year			
reader			available				
Changing the Game	Simons, L and Nijhof, A.	Required	Book	Already in possession			
Doing research - the hows and	Nel Verhoeven (4th	Required	Book	Already in possession			
whys of applied research	edition)						
Cultures and Organisations –	Hofstede, Hofstede &	Required	Book	Already in possession			
software of the mind	Minkov						
Estimated cost							
Cost item	Approximate cost Comments						
Literature/books	(€ 200)		If not in possession yet				
Documentary	€5		Online broadcasting fee for				
			documentary				
Excursion Brussels	€25		Study visit	to EU institutes			
International excursion	Depending on country	of destination	Students will be involved in the				
			preparation	on of excursion			
	programme.						
Remarks	The Food Systems Gov	vernance module is a me	rger of the pr	evious Food Governance			
	and International Excursion modules (former IFA curriculum, up to 2021). The Food						
		nodule will be given for t					
	2021-2022.	S		, ,			

Course information	Year of study: 2021-2022						
Ctudy Dragramma	Version: 03-2021						
Study Programme Course unit code	International Food and Agribusiness IF2447						
Course unit title							
	Business Development 2						
Location	Den Bosch						
Coordinator	Hielke van der Meulen (MeHi)						
Type of course unit							
Language of instruction	English						
Credits (ECTS)	6						
Moment of delivery	Year 2 Term 4						
Prerequisites	None						
Application deadline	1-5-2021						
Content	<ul> <li>This module covers:         <ul> <li>Development of a full-fledged business plan for a self-elaborated business venture, based on concept business plan from Business Development 1</li> <li>Financing options of (sustainable) business opportunities based on self-composed financial statements</li> <li>Insights into (sustainable) business development options in emerging markets</li> </ul> </li> </ul>						
Achieved Learning Outcomes prior to this module	To participate successfully, students should be able to:  Q3 Contributing to New Business Models  Recognize and understand consecutive steps in the manufacturing of agri-food products  Understand the basic elements of logistics  Recognize and understand some fundamentals of marketing  Explain financial management principles in given examples  Carry out financial structure assessment of international agri-food businesses  Use the cost structures and apply costing principles  Explain used financials in an annual reports and draw conclusions  Recognize and understand different organization structures, management, and leadership styles of companies (SMEs)  Recognize and understand the internal/external factors that determine internal organization/management  Recognize and understand logistical steps and principles in international agrifood supply chains  Q7 (Conducting Applied Research)  Perform some basic calculations (mean, standard deviation) on a given data set in Excel with given data  Formulate a main question and useful sub-questions in their own words, based on a given case  Select, analyze and combine information from implicitly given sources with extra information they have found themselves  Select sources (secondary data) that are relevant and reliable  Judge external information leading to the formation of an opinion						
Learning outcomes	The module contributes to the following program qualifications:  Q3. New Business Models  Q6. Project management  Q7. Doing research  After successful completion, the student is able to:  Q3: Analyse, evaluate and demonstrate the feasibility of a self-elaborated (Sustainable) Business Venture						

Financial Management: analyse & evaluate financing options of (sustainable) business opportunities based on self-composed financial statements Management & Entrepreneurship: evaluate / demonstrate the organizational feasibility based on (theories of) management & entrepreneurship in a selfelaborated business venture Logistics: evaluate / demonstrate logistical steps and principles in international agri-food supply chains Business Environment: evaluate / demonstrate inclusive business development approaches in a new business venture in emerging markets Q6: Complete tasks and prioritize within a group project in a multi-disciplinary company context Apply methodologies, techniques and tools of project management Q7 Student executes applied research and contributes to its design Apply various research methodologies for collection of (primary) data of acceptable quality Statistical analysis & calculations on a given data set from a market survey Apply interview techniques, case studies Analyse and judge collected data for discussion and formulating conclusions and advice) Learning activities and teaching Method Study load (hours) methods Thematic lectures 25 Working lectures (interactive) 13 Guest lectures 5 Company visit 5 Group project: business plan (concept) 80 40 Private study / exam **Neighting factor** Rating scale **Group work** Time of Resit **Assignment Business** Next term ASSI 1 0-10 IND Wk9 4.0 Development 2 Project Business Development PROJ 2 4.0 0-10 GRP Wk 10 Next term Title Status Code/comments Author Type Study Manual Meulen, H. van der Required Digitally Updated each year available Organisation & Management; Marcus, J. & N. van Recommended ISBN 9789001895648 an International Approach S. Mariotti & C. Entrepreneurship; Starting and Recommended Book ISBN 978-0132784085 Operating a Small Business Glackin (2014 etc... Prentice Hall) Marketing Fundamentals - An Verhage, B.J. Required Book Already in possession International Perspective, Second edition 2013

Statistics and SPSS	HAS University of Applied Sciences	Required	Reader Digitally available		
The basics of financial management	M.P Brouwers, W. Koetzier, O.A. Leppink	Required	Book	Already in possession, if not: reco edition 5 ISBN: 9789001738334 (per Sept. 2021)	
Better Practices of Project Management (IPMA)	J. Hermarij	ermarij Recommended Bool		ISBN: 9789087537173 ISBN: 9789087537968 (e-book)	
Doing research - the hows and whys of applied research	Nel Verhoeven (4th edition)	Required	Book	Already in possession	
Estimated cost					
Cost item	Approximate cost in €		Comments		
Literature/books	80 for recommended books (if not in posses	book, 160 for additional ssion yet)			
Group excursion (by bus)	15				
Other travel	About 25		Small excursion / group work, by		
			own transportation. Based on estimated costs for public transport		
Remarks	-				

Course information	Year of study: 2021-2022 Version: 03-2021						
Study Programme	International Food and Agribusiness						
Course unit code	IF2448						
Course unit title	Extension on Sustainability (ExtenS)						
Location	Den Bosch						
Coordinator	Jeannette van de Steeg						
Type of course unit	Mandatory □ Not mandatory						
Language of instruction	English						
Credits (ECTS)	8						
Moment of delivery	Year 2 Term 4						
Prerequisites	None						
Application deadline	1-5-2021						
	and entrepreneurs on sustainability issues will be of vital importance; e.g. the efficient use of resources, food and/or residues. In this module, students are confronted with a real-life situation in which they can develop these skills. In small groups (approximately 3 students), students take on the role of a consultant for a company in the agri-food business. The company is facing a sustainability issue. Students will interview the owner or manager and analyse the issue thoroughly. They will quantify the sustainability of the company, and use this as the basis for the advice to the company regarding the options for improvement. In this project, supervised by a tutor, both knowledge and skills are applied. The lectures are on Sustainable Engineering; how to calculate footprint? Four footprints are discussed; CO <sub>2</sub> , N, P, water. In workshops, several aspects of consultative selling are covered.						
Achieved Learning Outcomes prior to this module	<ul> <li>Q2: Student analyses (international) developments and opportunities towards sustainable agrofood production and consumption</li> <li>Student can evaluate options to valorize waste streams of food production systems</li> <li>Student can illustrate the impact of valorizing options on resources, environment and health</li> <li>Student can compute the amount of streams and resources in food the production system</li> <li>Q4. Creating Change</li> <li>Student can apply basic advisory skills, throughout a brief and controlled advisory process commissioned</li> <li>Q5. Value-based leadership</li> <li>Give and receive feedback in projects, in order to reflect on own personal development (in relation to others)</li> <li>Q6. Project management</li> <li>Write a structured and complete project proposal</li> <li>Compose a project plan (including planning/ budgeting/ risk assessment)</li> <li>Q7 (Conducting Applied Research)</li> <li>Describe relevant research methodologies (experiments)</li> <li>Write a theoretical background using up to date and trustworthy information sources</li> <li>Formulate and test a hypothesis</li> <li>Choose proper methods to answer the research question and justify the use of the</li> </ul>						

		esults and	methods ons and rec	ommend	ations		
Learning outcomes		The module contributes to the following program qualifications:					
		2. Sustainable production and consumption					
		4. Creating Change					
	_	5. Value-based leadership					
	6. Project m						
	7. Conductin	_					
		0 11					
	After succes	sful compl	etion, the s	tudent is	able to:		
	Q2:	'	,				
	_	the enviror	nmental im	pact of sir	nple agri-food sy	stems	
	Q5:				, , , , , , , , , , , , , , , , , , , ,		
		sic advison	vskills thro	ughout a	brief and control	led advisor	/ process
			n external c	_	21101 0110 00110100		, p. 55555
	Q6:	oried by a	ii externat e	ticiic			
	I -	a project i	nlan for a re	al-life ass	signment (includi	ησ	
			g/risk assess		ngene (metadi	''6	
	Q7:	baageting	5/1131( 43363)	orrierre)			
		oualitative	research h	v analysin	g interviews (cod	ling) focusi	nσ∩n
		; an advise		y arratysii	ig irrerviews (coe	iiiig), iocusii	ing on
Learning activities and teaching	Method	, arraavisc				Study	y load (hours)
methods	Lectures Su:	stainahle F	ngineering			Stud	14
methods				Suctainah	le Engineering		28
					te Liigineeiiiig		
	Workshops Communication Skills 14						
	Private study and oral on Communication 28						
	Group Project Foot-printing 140						
Test metric	Total 224						
Test matrix							
		<u>_</u>					
	_	acto	de				
	tior	ही हैं।	grac	cale	al/ ork	itior	
	of nina	. Jati	шо	ng sc	idu,	e of nina	
Part	Type of examination	Weighting fa	Bottom grad	Rating scale	Individual/ Group work	Time of examination	Resit
Written test	WRT	1	5.5	0-10	IND	Wk 9	Next term
Oral exam Communication	ORAL	1	5.5	1-10	IND	Wk 10	Wk 11
Project	ASSI	1	4.0	pass/	GRP	Wk 10	Next term
				fail			
Study materials							
Title	Author		Status		Туре	Code/con	nments
Study Manual	Various		Required		Digitally	Updated 6	
			<u> </u>		available		
Reader Sustainable Engineering							
					available		
Doing research - the hows and	Nel Verhoev	en (4th	Required		Book	Already in	possession
whys of applied research	edition)					1	

Project Management, A	Grit, R.	Required	Book	Already in possession	
practical Approach					
Strengths Finder 2.0	Rath, T.	Required	Book + code	Already in possession	
Lecture hand-outs, additional	Various		Digitally	Indicated per year	
literature, articles			available		
Estimated cost					
Cost item	Approximate cost Comments				
Literature/books	(€90)		If not in possession yet		
Other travel	About €75		Cost for own transportation is		
			depending on where client is located.		
Remarks	-				

Course information	Year of study: 2021-2022 Version: 03-2021						
Study Programme	International Food and Agribusiness						
Course unit code	IF2450						
Course unit title	Personal Leadership 2						
Location	Den Bosch						
Coordinator	Milouska Lensing-Molenaars (MMi)						
Type of course unit	☑ Mandatory ☐ Not mandatory						
Language of instruction	English						
Credits (ECTS)	4						
Moment of delivery	Year 2 Term 1-4						
Prerequisites	IF1420 Personal Leadership 1						
Application deadline	1-5-2021						
Achieved Learning Outcomes	The main goal of the Personal Leadership modules is to teach the student how to instigate his or her personal development based on self-knowledge, personal motivation, learning goals, self-reflection, feedback & feed forward. The module offers opportunities to reflect on personality, behaviour and attitude. It supplies students with tools for change and improvement and offers them guidelines for reaching personal objectives and exploring their talents, values and ambitions. Moreover, the Personal Leadership module teaches students how to critically self-reflect in relation to others, leading to personal leadership within relevant social, international and ethical dimensions.  Personal Leadership in the second year of the IFA study program builds on the Personal Leadership course in year 1 (IF1420), in which the students mainly focused on their own personal talents and individual performance. This course not only helps students to further explore themselves but also to reflect upon their own personality, behaviour and attitude in relation to others.  Next to that, they start making plans for their future (careers) and taking more and more responsibility for their personal growth and own study planning.  They begin with short and medium-term planning for their Internships and Minors in year 3, as well as their Specialisation and Graduation project in year 4. Moreover, they are challenged to place these plans in a long-term career perspective (job orientation).						
Achieved Learning Outcomes prior to this module	To participate successfully, students should be able to: Q 5. Value-based leadership  - Understand the purpose of personal development (plan) & self-reflection  - Identify personal talents  - Connect with co-students &staff effectively (teambuilding)  - Formulate learning aims, based on personal talents, as part of personal development plan  - Understand the use of turning personal talents into strengths  - Write a personal reflection report (incl. ethical dilemma), based on the personal development plan						
Learning outcomes	Q 5. Value-based leadership Student evaluates personal talents and competences, and reflects on ethical issues, leading to personal leadership After successful completion, the student is able to:						

	<ul> <li>Show insight in his/her personal strengths and that of teammates and others</li> <li>Give and receive feedback in projects, in order to reflect on own personal development (in relation to others)</li> </ul>						
Learning activities and teaching	Method					Stud	y load (hours)
methods	Lectures						16
	Practicals						8
	Workshops						8
	Coach (grou	ıp) session	S				15
	Individual c	oaching					5
	Self-study: F	DP, assign	ıments, self	reflection	report		40
	Selfmanage	ment (SMF	Hs)				20
	Total						112
Test matrix							
Part	Type of examination	Weighting factor	Bottom grade	Rating scale	Individual/ Group work	Time of examination	Resit
Self-reflection report (& 20 SMHs), incl. Year 3/4 planning	ASSI	0	PASS	pass/ fail	IND	Wk 10	Tbd**
"The retake options depend on th		_	_	(s). The le			
exact substitute assignment or re- Study materials	sit possibility,	and does ti	IIS III COIISUL	tation witi	T the module coo	rumator or c	other coaches
Title	Author		Status		Туре	Code/cor	nments
Study Manual Personal Leadership Y2	Lensing-Mo M.F.	lenaars,	Required		Digitally available	Updated each year	
StrengthsFinder 2.0, Discover Your CliftonStrengths	Rath, T.		Required		Book + code	Already in possession	
Lecture hand-outs, additional literature, articles	Various		Digitally Indicated per year available		per year		
Estimated cost							
Cost item	Approximat	e cost in €			Comments		
Literature/books	na						
Remarks	-						

# Year 4

Course information	Year of study: 2021-2022						
Charles Day and a second	Version: 03-2021						
Study Programme	International Food and Agribusiness						
Course unit code	Personal Leadership 2						
Course unit title	Den Bosch						
Location							
Coordinator	Milouska Lensing-Molenaars (MMi)						
Type of course unit	Mandatory □ Not mandatory						
Language of instruction	English .						
Credits (ECTS)	4						
Moment of delivery	Year 2 Term 1-4						
Prerequisites	IF1420 Personal Leadership 1						
Application deadline Content	1-5-2021 The main goal of the Personal Leadership modules is to teach the student how to						
	instigate his or her personal development based on self-knowledge, personal motivation, learning goals, self-reflection, feedback & feed forward. The module offers opportunities to reflect on personality, behaviour and attitude. It supplies students with tools for change and improvement and offers them guidelines for reaching personal objectives and exploring their talents, values and ambitions. Moreover, the Personal Leadership module teaches students how to critically self-reflect in relation to others, leading to personal leadership within relevant social, international and ethical dimensions.  Personal Leadership in the second year of the IFA study program builds on the Personal Leadership course in year 1 (IF1420), in which the students mainly focused on their own personal talents and individual performance. This course not only helps students to further explore themselves but also to reflect upon their own personality, behaviour and attitude <i>in relation to others</i> .  Next to that, they start making plans for their future (careers) and taking more and more responsibility for their personal growth and own study planning.  They begin with short and medium-term planning for their Internships and Minors in year 3, as well as their Specialisation and Graduation project in year 4. Moreover, they are challenged to place these plans in a long-term career perspective (job orientation).						
Achieved Learning Outcomes prior to this module	To participate successfully, students should be able to: Q 5. Value-based leadership  - Understand the purpose of personal development (plan) & self-reflection  - Identify personal talents  - Connect with co-students &staff effectively (teambuilding)  - Formulate learning aims, based on personal talents, as part of personal development plan  - Understand the use of turning personal talents into strengths  - Write a personal reflection report (incl. ethical dilemma), based on the personal development plan						
Learning outcomes	Q 5. Value-based leadership Student evaluates personal talents and competences, and reflects on ethical issues, leading to personal leadership  After successful completion, the student is able to:						

		_		_	ns and that of tea			
					order to reflect o	n own pers	onal	
		nent (in rel	ation to oth	iers)				
Learning activities and teaching	Method					Study load (hours)		
methods	Lectures					16		
	Practicals Workshops Coach (group) sessions Individual coaching Self-study: PDP, assignments, selfreflection report Selfmanagement (SMHs)					8 8 15 5 40		
						20		
	Total		112					
Test matrix								
		tor	4)					
	ion	gfac	rade	ale ale	<u>&gt;</u> 춪	ion		
	of inat	ıting	B E	SS	dua o wc	of inat		
Part	Type of examination	Weighting factor	Bottom grade	Rating scale	Individual/ Group work	Time of examination	Resit	
<u>a</u>	<b>⊢</b> '	<b>&gt;</b>	ā	<u>2</u> 2	<u>=</u> 0	≓ ô S	Œ	
Self-reflection report (& 20	ASSI	0	PASS	pass/	IND	Wk 10	Tbd**	
SMHs), incl. Year 3/4 planning				fail				
" The retake options depend on th		_	_					
exact substitute assignment or re-	sit possibility,	and does th	nis in consul	tation witl	h the module coo	rdinator or o	ther coaches	
Study materials								
Title	Author		Status		Type	Code/comments		
Study Manual Personal	Lensing-Molenaars,		Required		Digitally Updated each year		each year	
Leadership Y2	M.F.		Required		available			
StrengthsFinder 2.0, Discover	Rath, T.	Rath, T.			Book + code	Already in possession		
Your CliftonStrengths								
Lecture hand-outs, additional	Various				Digitally Indicated per year		per year	
literature, articles					available			
Estimated cost								
Cost item	Approximate cost in €				Comments			
Literature/books	na							
Remarks	-							

Course information	Year of study: 2021-2022 Version: 03-2021
Study Programme	International Food and Agribusiness
Course unit code	MN4411
Course unit title	Future Food Systems
Location	Den Bosch
Coordinator	Erwin Bouwmans (Bouw)
Type of course unit	☑ Mandatory ☐ Not mandatory
Language of instruction	English
Credits (ECTS)	30
Moment of delivery	Year 4 Term 1+2
Prerequisites	HAS students and students of other Dutch institutions: Propaedeutic diploma, plus 52+ ECTS of year 2 and 30+ ECTS of year 3, of which at least one finished internship in year 3. Credits are obtained in the IFA program or a related bachelors program in Agriculture, Agribusiness, Food production or Environmental studies.  International admissions: Three years of higher education on bachelor's level of which at least 75% has been obtained and in which at least one major practical assignment or traineeship has been completed. Credits are obtained in a program related to Agriculture, Agribusiness, Food production or Environmental studies.
Application deadline	Admissions are subjected to approval by the module team.  1-5-2021
Content	The current status of the agriculture sector is not so much the result of misguided intention, but more of system failure. Our supply chains are long and not always transparent. Our global markets are designed to go for the lowest price, irrespective of the longer-term consequences for the stakeholders involved.  Besides creating mainstream market demand as a driver for change, support services need to be structurally strengthened and rebuilt, national government policies need to be reformed and financial institutions need to learn to look at agriculture as a business opportunity and invest in its modernization.  Transformation of the current system and, in the meantime, Innovation in the current chains and businesses are necessary and taking place.  In this module students further investigate production chains and come up with ideas for improvement; ideas that enhance both sustainability and business. The module sheds light on the innovation process and on the transformation into a new system. Students are also stimulated to enlarge their professional network.  The module focuses on 'Value Based Change Management'; how to improve the world into a better place, starting with your own inner values leading to a value based change of the agro food system.  The Minor is divided into four main topics:  1. Transition of a sector or country in a wider system with other stakeholders (government, knowledge institutions, civil society) using Multi Level Perspective and building Scenarios.  2. Leadership and Personal leadership, and development hereof.  3. Circular Calculation at process and company (link) level within the current situation, using True Cost Accounting and Multi Criteria Analysis.
Learning outcomes	<ol> <li>Domain: crop, animal, or food production.</li> <li>The module contributes to all program qualifications, partly at the final level:</li> <li>Improving sustainability of the Global Agro-food system</li> <li>Applying bio-based &amp; circular economy principles in agro-food systems (final)</li> </ol>

- 3. Contributing to sustainable innovation in a sector (animal production, crop production or food processing/nutrition) (final)
- 4. Contributing to international business development
- 5. Providing advice
- 6. Networking & influencing
- 7. (Self)-reflection and judgement
- 8. Project management
- 9. Doing research (final)

After successful completion, the student is able to:

#### 01

- analyse business /sectors in the context of a global food system (past)
- to analyse future trends and to develop future scenarios
- perceive a supply chain as a system, and oversee the players in it

#### 02

- interrelate processes and business practices regarding agro-food systems
- contribute to circular/bio-based agro-food systems, using multi criteria analysis and/or impact analysis

### Q3

- complete analysis of production systems to identify long term trends and opportunities within the (animal, crop or food) sector
- apply insights in current developments in his/her domain to identify opportunities in his/her domain production systems that contribute to more sustainable systems

# Q4

- come up with new business ideas for an existing company to improve sustainability
- compare and select different future business options using true cost accounting
- identify promising niches and new business models from future scenario studies

#### Q5

- provide advice on options for the implementation of a sustainability project within a production field

#### 06

- contribute to transitions in a niche, business or project (internal)
- contribute to transitions in a network with stakeholders (external)

# 07

- identify and understand personal and interpersonal strengths
- reflect on personal Value Based Leadership in the light of the ever-changing agrofood complex
- reflect on the development of one's own talents and those of fellows in a group

# 08

- select and justify project management method
- write a complete project plan in a complex situation in relation with the client
- execute a project according to planning and budget (resources and money)
- effectively manage projects showing effective project management skills
- recognize and evaluate his/her own role in a group
- place own role within the larger context
- clearly communicate within multi-stakeholder environment and manage expectations
- identify connections within a sector and determine the common objectives for projects and collaboration

## Q9

- design and execute a professional research which answers research questions on a topic related to sustainable innovation in his/her domain (crop, animal or food)

Learning activities and teaching	Method					Study load (hrs)	
methods	- Thematic lectures and excursions on Transition and					56	
	Scenarios Project management						
	- Lectures Project management					28	
	- Leadership; College Tours, Workshops, Food Experience					168	
	- Circular Calculation; lectures, field days					56	
	- Domain; lectures doing research, Individual Research, Domain lectures					252	
	- Group P life case	roject in wh	280				
	Total					84	0
Test matrix							
÷.	Type of examination	Weighting factor	Bottom grade	Rating scale	Individual/ Group work	Time of examination (duration)	iit
Part	ТУ		Bot	Rat	lnd Gro	Tin (du	Resit
Reflection report (Personal leadership)	ASSI	3	5.5	1-10	IND	Wk 16	Wk 19
Individual research	ASSI	5	5.5	1-10	IND	Wk 18	Wk 19
Domain test	ASSI	2	4.0	1-10	IND	Wk 15	Wk 19
Project report & presentation	PROJ	10	5.5	1-10	GRP	Wk 19	tbd
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