

Department of Sustainable Agriculture and  
Energy Systems

**C U R R I C U L U M**

of the Master's degree programme

**Digital Farming**

in the 2025/26 academic year

The curriculum is produced and determined by the Department of Sustainable Agriculture and Energy Systems in accordance with the study and exam regulations for the Master's degree programme Digital Farming at Weihenstephan-Triesdorf University of Applied Sciences of 7 February 2025

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Prof. Dr. Spreidler  
AE Dean

## Important Notes

The curriculum gives a detailed overview of the courses offered in the **current** semesters. This curriculum is therefore based on the study and exam regulations (SPO) 2025/26 dated 7 February 2025.

You can find the module descriptions for the Master's degree programme Digital Farming in the module handbook at:  
 • [Module handbook study and exam regulations \(SPO\) 2025/26 incl. electives](#)

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Abbreviations:

EC	=	Credit Points according to the European Credit Transfer System (ECTS)	PRA	=	Internship outside the university
Koll	=	Colloquium	Präs	=	Presentation
LV	=	Course	S	=	Seminar
mP	=	Oral examinations	sP	=	Written examination
P	=	Practical course	SS	=	Summer semester
PA	=	Project work	StA	=	Student research project
PM	=	Obligatory module	SU	=	Seminar-based tuition
PS	=	Project seminar	SWS	=	Weekly hours per semester
PoP	=	Portfolio exam consisting of multiple subexams of different types	TN	=	Proof of participation
			Ü	=	Exercise
			WS	=	Winter semester

# 1 Obligatory modules (Pflichtmodule)

## 1.1 Obligatory modules first and second semester

As a full-time course, the study programme takes up a standard study period of four semesters with four theoretical semesters, including a Master's thesis.

ID	Module	SWS		EC	Type of LV	Type and duration of exam in minutes	TN	Lecturer
		1st sem. WS	2nd sem. SS					
339251010	Plant production	4		5	SU, Ü	sP 90		Dr. Haase
339251020	Animal production and welfare	4		5	SU, Ü	sP 90		Dr. Patzkéwitsch, Dr. Dr. Zeiler, Dr. Weindl, N.N.
339251030	Foundations of programming	2 2		5	SU Ü	sP 90		Dr. Haselbeck Dr. Yaghoubi, Subramanian, N.N.
339251040	Data literacy and sensors	3 1		5	SU Ü	sP 90		Dr. Groß, Dr. Hartung
339251050	International agricultural production systems and markets <sup>1</sup>	4		5	SU, PS	PoP: PA with Präs 15		Dr. Walther, Dr. Daude
339251800	Elective	4		5	see 2 Required elective modules			
339252010	Artificial intelligence 1		2 2	5	SU Ü	PoP: PA with Präs 30		Dr. Haselbeck Dr. Back, Subramanian
339252020	Agricultural robotics		4	5	SU, P	Präs 30		Dr. Groß, Dr. Yaghoubi
339252030	Precision livestock farming		4	5	SU, Ü	sP 90		Dr. Walther, Dr. Yaghoubi, Dr. Werner, Dr. Thobe
339252040	Precision arable farming		3 1	5	SU Ü	sP 90		Dr. Groß, Dr. Walther
339252050	Project management and scientific work		2 2	5	SU PS	PA and sP 45		Dr. Beinert, Dr. Busch
339253030	Seminar digital farming <sup>2</sup>		1	5	S	Präs 30	TN	Dr. Groß <sup>3</sup> et al.
339252800	Elective		4	5	see 2 Required elective modules			
Σ SWS in semester		24	25					

<sup>1</sup> Lecturers may be present in the module at the same time.

<sup>2</sup> Start in summer semester 2026. Obligatory attendance are 10 sessions within all semesters. In Groups of two, students work on a practical or theoretical topic with scientific standard and present the result in a poster session. .

<sup>3</sup> This person is responsible for the module. The topics can be provided by all lecturers and scientific staff of the HSWT.

## 1.2 Obligatory modules third and fourth semester

ID	Module	SWS		EC	Type of LV	Type and duration of exam in minutes	TN	Lecturer
		3rd sem. WS	4th sem. SS					
339253010	Artificial intelligence 2	2 2		5	SU Ü	PoP: PA with Präs 30		Dr. Haselbeck Dr. Yaghoubi, Dr Back
339253020	Project applied digital farming	4		10	S, PS	PoP: PA with- Präs 30		Dr. Haselbeck <sup>4</sup> et al.
339253030	Seminar digital farming <sup>2</sup>	1	(1)	5	S	Präs 30	TN	Dr. Groß <sup>3</sup> et al.
339253800	Electives	8		10	see 2 Required elective modules			
339254000	Master's Thesis			5		Thesis Koll 45		
Σ SWS in semester		17						

<sup>4</sup> This person is responsible for the module. Project topics can be offered and supervised by industry partners and all lecturers.

## 2 Required elective modules and elective modules (Wahlpflichtmodule und Wahlmodule)

During the degree programme, students must successfully complete required elective modules ('Wahlpflichtmodule') worth a total of 20 ECs.

**Enrolment** for elective modules and required elective modules should take place **in the first week of the semester** in the MyCampus portal. If a student chooses to take more than the necessary number of required elective modules, the excess required elective modules will be converted into elective modules ('Wahlmodule').

The final marks of the required elective modules will be shown on the degree certificate (the marks of the optional elective module will only be shown upon written request). For organisational and didactic reasons, the number of participants may be limited (minimum and maximum number of participants). If necessary, a selection procedure will be used to determine the number of participant.

Whether or not all required elective modules and elective modules can be taught depends on a number of factors, including the number of interested students.

Up to two language courses listed below will be recognised per student as required elective modules (10 ECs at most and not the native language).

Upon request to the examining committee, other language courses than the ones listed below can be chosen as well as required elective modules from the Master's programmes Resilient Horticulture (MRH) or Agrarmanagement (MAG) up to a maximum of 10 ECs (including German taught modules).

Each student can choose optional elective modules of his or her own choice. As long as there are places available, all general required elective modules and subject-specific required elective modules (AWPM and FWPM) offered by the HSWT can be chosen as elective modules.

### 2.1 Required elective modules (Wahlpflichtmodule)

ID	Module	Semester/ SWS				EC	Type of LV	Type and duration of exam in minutes	Lecturer
		1	2	3	4				
810400010	Digital Marketing and Sales	4		4		5	SU, Ü	sP 90	Dr. Kühl
811800020	Renewable energies and energy management <sup>5, 6</sup>	4		4		5	SU, Ü	sP 90	N.N.
810100050	Adoption and Acceptance of Technologies and Production Processes <sup>7</sup>	4		4		5	SU, P	sP 90	Dr. Gabriel
810100060	AgTech Start-Up Management and Entrepreneurship <sup>8</sup>	4		4		5	SU, Ü	sP 90	Dr. Höllmüller
810100040	Advanced Irrigation Technologies <sup>7</sup>		4		4	5	SU, P	sP 90	Dr. Beck
811600220	Plant Breeding and Biostatistics		4		4	5	SU, Ü	sP 90	Dr. Hartung, Dr. Wespel
811300090	Mitigation and Adaptation in Forests and Agriculture		4		4	5	SU	sP 90	Dr. Schauburger, Dr. Zang
810900110	Industry Internship <sup>9</sup>			X	X	5	PRA (4 weeks)	Präs	Dr. Haselbeck <sup>3</sup> et al.
811800030	Research Internship <sup>10</sup>			X	X	5	PRA (4 weeks)	StA <sup>11</sup>	Dr. Haselbeck <sup>3</sup> et al.

<sup>5</sup> Start in winter semester 2026/27.

<sup>6</sup> Number of participants limited to 29.

<sup>7</sup> Number of participants limited to 10.

<sup>8</sup> Number of participants limited to 25.

<sup>9</sup> Only for students of the 3rd semester or higher. Internship of at least 4 weeks (consecutive or during studies) in a company (in Germany or abroad) that is a potential employer. A specific management task must be fulfilled with the aim of acquiring management qualifications. Supervision by a lecturer from the degree programme, with whom the relevant arrangements regarding the course and management task must be clarified before the start of the internship.

<sup>10</sup> Only for students of the 3rd semester or higher. Internship of at least 4 weeks (consecutive or during studies) on a scientific topic both within the university or in a research institution outside the university. Supervision by a lecturer from the degree programme, with whom the relevant arrangements regarding the course and the research project must be clarified before the start of the internship.

<sup>11</sup> Short scientific paper or project proposal.

ID	Module	Semester/ SWS				EC	Type of LV	Type and duration of exam in minutes	Lecturer
		1	2	3	4				
880900010	Intercultural Competence <sup>12</sup>	4	4	4	4	5		see Language centre – courses at Weihenstephan	
880500020	Englisch UNlcert® III - Intercultural Competence (C1 GeR) <sup>13</sup>	4		4		5		see Language centre – courses at Weihenstephan	
880500010	Englisch UNlcert® III - English for Specific Purposes (C1 GeR)		4		4	5		see Language centre – courses at Weihenstephan	
880400060	German as a foreign language – Basic A1 (CEFR)	6	6	6	6	5		see Language centre – courses at Weihenstephan	
880400070	German as a foreign language – Basic A2 (CEFR)	6	6	6	6	5		see Language centre – courses at Weihenstephan	
980400150	German as a foreign language – B1 (CEFR)	6	6	6	6	5		see Language centre – courses at Weihenstephan	

## 2.2 Elective modules (Wahlmodule)

The ECTS credits awarded for elective modules are not included in the calculation of the final overall grade.

ID	Module	Semester/ SWS				EC	Type of LV	Type and duration of exam in minutes	Lecturer
		1	2	3	4				
911300590	Mentoring for international students <sup>1, 14, 15</sup>	2		2		3	S	StA	Dr. Otten, Dr. Haselbeck, Dr. Groß, N.N

## 3 Protection of students during pregnancy, after childbirth and while breastfeeding

The Maternity Protection Act also applies to students. The purpose of the law is to protect the health of the woman and her child in her place of study during pregnancy, after childbirth and while breastfeeding. The law aims to enable students to continue their studies during this period without posing risks to their health or that of their children, and to counteract disadvantages during pregnancy, after childbirth, and during the breastfeeding period.

In the following compulsory modules of the Master's degree programme, the participation of students during pregnancy, after childbirth and while breastfeeding is only possible in compliance with certain restrictions. The student must consult the lecturer before participating:

ID	Module	Potential sources of risk
339251010	Plant production	Field Trips
339251020	Animal production and welfare	Field Trips
339252040	Precision arable farming	Field Trips

If you have any questions about participating in the modules listed above, please contact the relevant lecturer.

<sup>12</sup> The module consists of two parts. Part 1: Concepts for dealing with intercultural encounters . Part 2: Their application to university and business contexts. For details see module description.

<sup>13</sup> The module consists of two parts. Part 1: general information on intercultural competence. Part 2: job oriented communication. For details see modul description.

<sup>14</sup> Limited to 5 participants.

<sup>15</sup> A certificate will be provided upon successful completion of the module.