

First study year obligatory courses

Graduate university study in English Digital Agriculture	1 st year
--	----------------------

Winter semester (semester 1)		Classes and class types				
<i>Code</i>	<i>Course</i>	<i>Lecture</i>	<i>Practice</i>	<i>Seminar</i>	<i>Total</i>	<i>ECTS credits</i>
ICT-01	Introduction to digital agriculture	30	-	10	40	3
ICT-02	Basic biostatistics	35	15	10	60	5
ICT-03	Databases	30	15	15	60	5
ICT-04	Agroecology in sustainable agriculture	25	25	-	50	4
ICT-05	Programming basics	30	30	-	60	5
ICT-06	Agricultural engineering	20	15	15	50	4
ICT-07	Agrotechnics and sustainable crop production systems	30	15	5	50	4
Total						30

Summer semester (semester 2)		Classes and class types				
<i>Code</i>	<i>Course</i>	<i>Lecture</i>	<i>Practice</i>	<i>Seminar</i>	<i>Total</i>	<i>ECTS credits</i>
ICT-08	Bioeconomy and rural development	40	-	10	50	4
ICT-09	Networks and networking	30	30	-	60	5
ICT-10	Geoinformation technologies in agriculture	20	15	15	50	4
ICT-11	Precision agriculture	20	15	15	50	4
ICT-12	Remote sensing and data analysis	30	15	15	60	5
ICT-13	Horticultural production systems	30	15	5	50	4
ICT-14	Principles of animal breeding and feeding	40	10	-	50	4
Total						30

Second study year obligatory courses, Plant Production major (semesters 3 and 4)

Graduate university study Digital Agriculture, Plan production major	2 nd year
--	----------------------

Winter semester (semester 3)		Classes and class types				
Code	Course	Lecture	Practice	Seminar	Total	ECTS credits
ICT-15	Application of models in irrigation management	15	-	25	40	3
ICT-16	Fertilisation in sustainable agriculture	30	10	10	50	4
ICT-17	Model sin plant protection	30	10	-	40	3
ICT-18	Greenhouse production technology	20	20	10	50	4
ICT-19	Application of unmanned aerial vehicles in agriculture	15	10	25	50	4
ICT-20	Practicum I	-	70	5	75	3
Total obligatory courses						21
Elective courses						9
Total						30

Summer semester (semester 4)		Classes and class types				
Code	Course	Lecture	Practice	Seminar	Total	ECTS credits
ICT-21	Contemporary pomotechnology	30	-	20	50	4
ICT-22	Contemporary viticulture	20	20	10	50	4
ICT-23	Big data in agriculture	20	20	-	40	3
ICT-24	Practicum 2	-	70	5	75	3
ICT-25	Graduation thesis					6
Total obligatory courses						20
Elective courses						10
Total						30

Second study year obligatory courses, Animal Production major (semesters 3 and 4)

Graduate university study Digital Agriculture, Animal Production major	2 nd year
--	----------------------

Winter semester (semester 3)		Classes and class types				
Code	Course	Lecture	Practice	Seminar	Total	ECTS credits
ICT-26	Animal nutrition and physiology	35	10	5	50	4
ICT-27	Ruminant breeding technologies	25	5	10	40	3
ICT-28	Sensors in the process of monitoring and control of livestock production	20	20	10	50	4
ICT-29	Technology of swine and poultry production	30	-	10	40	3
ICT-20	Practicum I	-	70	5	75	3
Total obligatory courses						17
Elective courses						13
Total						30

Summer semester (semester 4)		Classes and class types				
Code	Course	Lecture	Practice	Seminar	Total	ECTS credits
ICT-30	Precision livestock farming applications in animal health monitoring	20	5	5		3
ICT-31	Quality and safety of animal products	30	10	10		4
ICT-23	Big data in agriculture	20	20	-	40	3
ICT-24	Practicum 2	-	70	5		3
ICT-25	Graduate thesis					6
Total obligatory courses						19
Elective courses						11
Total						30

Second study year common elective courses

List of elective courses of Block 1 - Bioeconomy

Code	Semes ter	Course	Lecture	Practice	Seminar	Total	ECTS credits
ICT-E-32	3	Agroeconomic models in sector modelling	20	-	10	30	3
ICT-E-33	3	Decision support systems and E-marketing	20	10	10	40	4
ICT-E-34	3	Digitalization in agritourism	20	-	10	30	3
ICT-E-35	4	ICT and society	20	-	10	30	3
ICT-E-36	4	Innovative agromanagement	20	-	10	30	3
ICT-E-37	4	English language in digital agriculture	20	10	-	30	3
ICT-E-38	4	Project management in digital agriculture	10	15	15	40	3
Total							22

List of elective courses of Block 2 - Crop Production

Code	Seme ster	Course	Lecture	Practice	Seminar	Total	ECTS credits
ICT-E-39	3	Information technology and plant breeding	25	15	-	40	3
ICT-E-40	3	Ecological modelling	15	15	10	40	3
ICT-E-41	3	Nanotechnology and sustainable agriculture	30	10	10	50	4
ICT-E-42	4	Industrial plants production	20	20	10	50	4
ICT-E-43	4	Cereals and forages production	25	20	5	50	4
ICT-E-44	4	Organic plant production	25	10	5	40	3
Total							21

List of elective courses of Block 3 - Agricultural Engineering

Code	Seme ster	Course	Lecture	Practice	Seminar	Total	ECTS credits
ICT-E-45	3	Remote sensing in agriculture	15	10	25	50	4
ICT-E-46	3	GNSS and sensors in agriculture	15	10	25	50	4
ICT-E-47	4	Inventarisation and thematic maps of natural resources	15	10	25	50	4
Total							12

List of elective courses of Block 4 - Computer Science

<i>Code</i>	<i>Semester</i>	<i>Course</i>	<i>Lecture</i>	<i>Practice</i>	<i>Seminar</i>	<i>Total</i>	<i>ECTS credits</i>
ICT-E-48	3	Algorithms and data structures	30	20	-	50	4
ICT-E-49	3	Web development	20	30	-	50	4
ICT-E-50	3	R for data analysis	20	15	5	40	3
ICT-E-51	4	Modelling	20	20	10	40	4
ICT-E-52	4	Object-oriented programming	20	20	10	50	4
Total							19

List of elective courses of Block 5 - Plant Protection

<i>Code</i>	<i>Semester</i>	<i>Course</i>	<i>Lecture</i>	<i>Practice</i>	<i>Seminar</i>	<i>Total</i>	<i>ECTS credits</i>
ICT-E-53	3	Digitalization in stored product protection	15	-	15	30	2
ICT-E-54	3	Nematodes in sustainable agriculture	25	15	0	40	3
ICT-E-55	3	Ecology of plant pathogens and prognostic models	10	-	20	30	2
ICT-E-56	4	Insect phenology modelling	25	-	15	40	3
ICT-E-57	4	Modelling weed control	20	10	10	40	3
Total							13

List of elective courses of Block 6 - Animal Production

<i>Code</i>	<i>Semester</i>	<i>Course</i>	<i>Lecture</i>	<i>Practice</i>	<i>Seminar</i>	<i>Total</i>	<i>ECTS credits</i>
ICT-E-58	3	Innovative technologies in beekeeping	10	10	-	20	2
ICT-E-59	3	Digital technologies in breeding of herbivore animals	30	10	-	40	3
ICT-E-60	4	Digital technology in omnivore breeding	30	10	-	40	3
Total							8