

Short-term Intensive Course on Sustainable Land Use

Centre for Agricultural and Applied Economic Sciences, University of Debrecen, Hungary



The city of Debrecen has more than 200,000 inhabitants, making it the second largest city in Hungary. It lies in the north-eastern part of the Great Plain region about 240 km from Budapest. Debrecen is the cultural and scientific centre of eastern Hungary, a city of festivals, which has always been able to renew itself during its turbulent history of more than 650 years.

The city is also attractive to tourists. It receives hundreds of thousands of visitors every year during its festivals, which include the Béla Bartók International Choir Contest, Debrecen's Jazz Days, the Hungarian language and cultural courses of the Debrecen Summer School, or the Flower Carnival held each year on 20th August.

Thousands of students attending college or university-level faculties choose to live and study in our city each academic year.



The University of Debrecen (UD)

The University of Debrecen, like other integrated institutions of higher education in the country, was formed on 1st January, 2000, through the (re)union of formerly independent institutions. The University is historically rooted in the Reformed College of Debrecen (founded in 1538) whose three academic sections later served as the basis for the establishment of the Hungarian Royal University of Sciences, created in 1912.

With this heritage of more than 450 years, UD is one of the oldest institutions of higher education in Hungary.

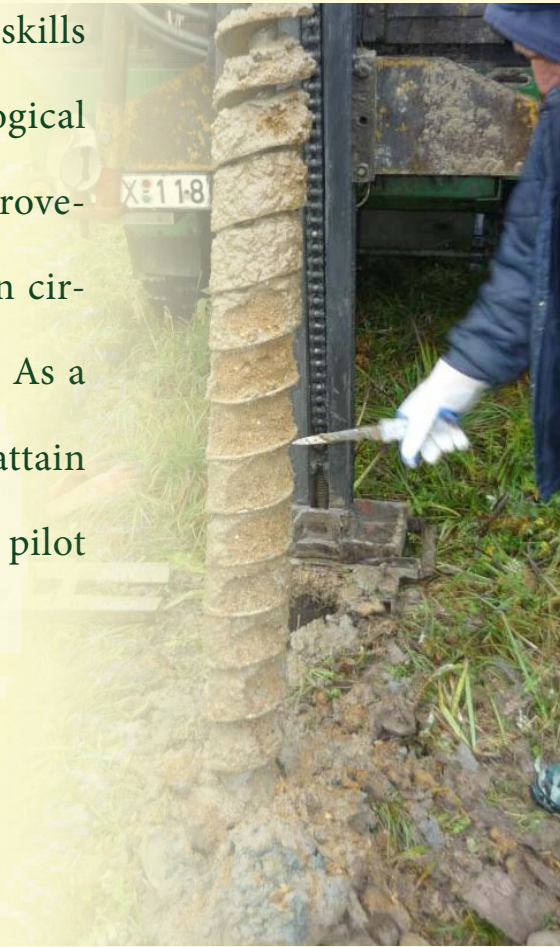
Today the university is comprised of 15 faculties and three agricultural research centres and has close to 35,000 students, out of which 3,500 are internationals.

UD ranks among the top state higher education institutions in the country. It was awarded the titles “Research University” (in 2010) and “University of National Excellence” (in 2012) by the Hungarian Government.



Short-term Intensive Course on Sustainable Land Use

The aim of the course is to transfer modern and practice-oriented skills of land use. Participants learn soil preserving production technological solutions, as well as the tool system of soil protection and soil improvement. They are also trained how to adjust to changing production circumstances, as well as to challenges arising from climate change. As a complementation of their theoretical knowledge, participants can attain the practice of sustainable land use during various study trips to pilot farms operating on various production sites in Hungary.



Sample Schedule for Short-term Intensive Course on Sustainable Land Use

Week 1

	Monday	Tuesday	Wednesday	Thursday	Friday
1	Subject specific English	Subject specific English	Subject specific English	Subject specific English	Subject specific English
2	Subject specific English	Subject specific English	Subject specific English	Subject specific English	Subject specific English
	Topic: Methods of influencing the water, heat and air management of soil	Topic: Soil tillage systems of field crops	Topic: Visit to Karcag Research Institute	Topic: Cultivation methods of different soil types	Topic: Machines of cultivation
3	Water management of the soil	Order of soil preparation		Brown forest soils	Type of ploughs
4	Water management of the soil	Order of soil preparation		Chernozem soils	Force and power requirements
5	Air management of the soil	Order of soil preparation		Meadow soils	The main parts of the plough, Plough setting
6	Air management of the soil	Tillage systems ategorised by sowing date		Alkaline soils	Disc harrow, Harrows
7	Heat management of the soil	Tillage systems categorised by sowing date		Sandy (skeletal) soils	Rotary tiller, Rolls
8	Heat management of the soil	Tillage systems ategorised by sowing date		Marsh soils	Cultivators, Combined tillage machines

Week 2

	Monday	Tuesday	Wednesday	Thursday	Friday
1	Subject specific English	Subject specific English	Subject specific English	Subject specific English	Subject specific English
2	Subject specific English	Subject specific English	Subject specific English	Subject specific English	Subject specific English
	Topic: Conservation tillage systems	Topic: The necessity, method and tools of deep cultivation	Topic: Land use methods	Topic: Tillage systems used in Hungary	Topic: Visit to KITE Zrt.
3	Characteristics of conventional tillage systems	Cause and significance of soil compaction	Crop rotation	Conventional tillage	
4	Characteristics of minimum tillage system	A Factors influencing soil compaction	Crop rotation	Conventional tillage	
5	Characteristics of reduced tillage system	Consequences of soil compaction	Aspects influencing the crop composition	Improved conventional tillage	
6	Characteristics of conservation tillage systems	The aim and necessity of deep tillage	Aspects of developing the crop order	Improved conventional tillage	
7	Western Europe type tillage systems	The aim and necessity of deep tillage	Aspects of developing the crop order	Reduced tillage systems	
8	Tillage systems comparisons	Method of deep tillage	Natural science bases of crop cycle	Reduced tillage systems	

Sample Schedule for Short-term Intensive Course on Sustainable Land Use

Week 3

	Monday	Tuesday	Wednesday	Thursday	Friday
1	Subject specific English	Subject specific English	Subject specific English	Subject specific English	Subject specific English
2	Subject specific English	Subject specific English	Subject specific English	Subject specific English	Subject specific English
	Topic: Nutrient management	Topic: Machines of nutrient application	Topic: Visit to Látókép	Topic: Production site protection, protection against erosion and deflation	Topic: Mechanization of sowing
3	Fundamental concepts of nutrient management	Spinning disc type fertilizer spreader		The importance of production site and soil protection	Grain drills
4	Factors influencing the effectiveness of fertilisers	Tractor carried type fertilizer spreader		The importance of production site and soil protection	Grain drills
5	Correlation between fertilisation and agrotechnical factors	Pendulum, auger and pneumatic type fertilizer distributor		Land consolidation	Precision Seed drills
6	Basic principles of nutrient supply	Manure spreaders		Plot development	Precision Seed drills
7	Precision, production site-specific fertilisation	Slurry spreaders		Deflation	Direct sowing machines
8	Environmental aspects of nutrient supply	Slurry spreaders		Deflation	Direct sowing machines

Week 4

	Monday	Tuesday	Wednesday	Thursday	Friday
1	Subject specific English	Subject specific English	Subject specific English	Subject specific English	Subject specific English
2	Subject specific English	Subject specific English	Subject specific English	Subject specific English	Subject specific English
	Topic: Production site protection and improvement	Topic: Visit to Research Institute of Nyíregyháza	Topic: Precision agriculture I.	Topic: Precision agriculture II.	Topic: Irrigation farming
3	Concept and tasks of soil improvement		Satellite navigation systems	Precision soil tillage	The impact of irrigation on the soil
4	Improvement of saline soils		Accuracy of localisation, correction methods	Precision soil tillage	The impact of irrigation on the soil
5	Improvement of acidic soils		Precision soil data	Precision sowing	The impact of irrigation on the soil
6	Improvement of acidic soils		Line guidance	Precision nutrient supply	Tillage of irrigated soils
7	Improvement of sandy soils		Automatic steering	Precision plant protection	Tillage of irrigated soils
8	Improvement of the physical and biological soil condition		Fleet management	Precision harvesting	Tillage of irrigated soils

Please note that this is only a sample schedule. Subjects can be changed and further subjects can be added according to the needs of the applicants.

The cost of the intensive course is 1500 EUR/person. Accommodation can be booked at the University's dormitories from 200 EUR/month/person price.

The cost of full board is 500 EUR/ month.

For further information please contact:

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