



UNIVERSITY OF SZEGED  
**FACULTY OF AGRICULTURE**  
HÓDMEZŐVÁSÁRHELY








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For more information please visit our website:

 <https://mgk.u-szeged.hu/english>

 [international.mgk@szte.hu](mailto:international.mgk@szte.hu)

 H-6800 Hódmezővásárhely, Andrásy út 15.

## LOCATION AND HISTORY

The Faculty of Agriculture of the University of Szeged is located in Hódmezővásárhely, in southeast Hungary, in the Southern Great Plain region, 25 kilometres from the University's centre in Szeged.

The agricultural education in Hódmezővásárhely has a history of more than 110 years. The first agricultural school providing basic level education was founded in 1896 in the area of the present pilot farm of the Faculty. In 1961, it became a higher education institute.

Our Faculty, due to the integration process in higher education in Hungary, became a part of the University of Szeged in January 2000.

The educational and research work of the Faculty is organized in three Institutes:

- 1. Institute of Animal Sciences and Wildlife Management**
- 2. Institute of Economics and Rural Development**
- 3. Institute of Plant Sciences and Environmental Protection**

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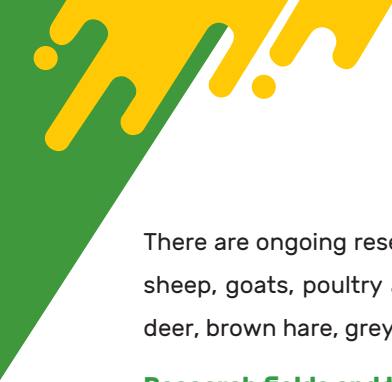
## INSTITUTE OF ANIMAL SCIENCES AND WILDLIFE MANAGEMENT

The Institute was established by the integration of Anatomical, Animal Health, Animal Breeding, Wildlife Management and Environmental protection and the Animal Nutrition Institutes.

The lecturers of the Institute participate in the education of the following majors: Agricultural and Business digitalisation (BSc), Agricultural Engineer (BSc), Agribusiness and Rural Development Management (BSc) and Wildlife Management Engineer (BSc). There are higher vocational trainings in Stud farming and Agriculture.

There are also postgraduate courses in Professional horse breeding, Agricultural appraiser, Precision agriculture and in Wildlife management. The research activity of the institute is quite diverse.





There are ongoing researches on farm livestock such as dairy cattle, pigs, sheep, goats, poultry and domestic bees and also on games such as roe deer, brown hare, grey partridge and European roller.

### **Research fields and topics:**

#### **Animal breeding and feeding:**

- Gene conservation of Hungarian hen
- Investigation of milking technology and culling causes in dairy cattle and the effects of heat stress
- Examination of the effects of heat stress on breeding pigs
- Production performance study of Saanen goats and the Hungarian Merino sheep
- Increase of biodiversity in bee pastures on the Hungarian Great Plain
- Silage experiments, Mycotoxin infection in forage, Testing of food materials of animal origin

#### **Animal health:**

- Bovine hoof diseases, heart worm disease, bot fly infection.

#### **Wildlife management, conservation and ecology**


- Brown hare population monitoring and management
- Grey partridge breeding and reintroduction
- Ecology and conservation of farmland and grassland birds
- Diet examinations of roe deer

## INSTITUTE OF ECONOMICS AND RURAL DEVELOPMENT

The Institute's mission and task is to provide up-to-date agricultural and rural developmental knowledge in accordance with domestic and international trends, which enables future agricultural professionals to provide professional answers to the economic and social challenges arising in the field of agriculture and rural development, thereby serving the domestic agricultural economy and contributing to the development of rural areas.

Over the past few years, the Institute's training portfolio has been continuously expanded, thereby taking an important role in the education of many graduate and postgraduate courses. In accordance with the Institute's profile, the taught subjects focus on agricultural economics and rural development.





The Institute places great emphasis on practice-oriented trainings within the framework of which it tries to maintain a continuous professional relationship with the dual and cooperative corporate partners and professional organizations of the Hódmezővásárhely area and the Southern Great Plain region.

On July 1, 2020, the Rural Development Research Group was founded within the framework of the Institute, and its main purpose is to investigate the current rural development issues affecting the Southern Great Plain region, as well as the impact and correlations of the agricultural economy on rural development.

Lecturers, researchers and talented students who are interested in the field of science are regularly involved in the work of the research group.

#### **Research workshops of the Institute:**

- Agricultural economics research workshop
- Rural development research workshop

#### **Research fields of the Institute:**

- Work organization and economics of arable and horticultural crop cultivation and animal husbandry
- Economic issues of precision arable- and horticultural cultivation and animal husbandry
- Economic issues of sustainable crop production
- Territorial differentiation in the development of rural areas
- Spatial and temporal appearance forms and changes of socioeconomic processes
- Processing of agricultural and food industry by-products, technology- and product development.

## INSTITUTE OF PLANT SCIENCES AND ENVIRONMENTAL PROTECTION

The main goal and task of the Institute staff is to familiarize the students with the basic concepts and technologies of crop production, plant protection, horticulture, environmental protection and related fields.

In addition to traditional ones, attention is drawn to the alternative agro-technical and ecologically informed methods, as well as to the importance of integrated crop production. Furthermore, a realistic view of the consequences of wasteful use of natural resources, the irrational industrial and agricultural activity, as well as the accelerating degradation of the natural, economic and residential environment is given, together with the possible solutions of preventing these processes.

The staff members of the Institute are responsible for the organization of the BSc study program of Agricultural Engineering, the MSc programs of Plant Protection Engineer and Nature Conservation Engineer, as well as postgraduate programs in the fields of precision agriculture, medicinal plant production and plant protection. As lecturers, they are involved in each study program running at the Faculty both in Hungarian and English language.



**The most important research fields conducted by more than a dozen staff members are the following:**

- Improvement of sweet potato production technology
- The effect of plant growth regulators on the in vitro and in vivo shoot formation characteristics as well as the abiotic stress tolerance of sweet potato
- The effects of various biostimulant products on the yield and quality of crops
- The effects of plant symbiotic bacteria and fungi on increasing the resistance of plants to abiotic and biotic stresses as well on nutrient uptake and utilization
- Germination and field recording of weed species in stands of cultivated plants for artificial intelligence-based detection
- Examination of nitrogen uptake by cultivated plants - analysis of apoplast sap, photoacoustic method
- Temporal examination of the phytomass of Tisza floodplain grasslands for floodplain greenhouse gas balance calculations and modelling
- Pollen concentration studies of invasive plant species
- Analysis of carotenoid and polyphenol content in horticultural crops
- Analysis of the composition and antioxidant capacity in spice pepper genotypes
- Precision farming: digital data recording, drone monitoring, soil mapping, evaluation of soil data.



## AGRICULTURAL ENGINEERING BSc PROGRAM

The Agricultural Engineering BSc program aims to train agricultural engineers with extensive knowledge in different agricultural sectors.

The program consists of 6 semesters of study and 1 semester of practical training. It also includes courses in four engineering application areas in agriculture such as agricultural economics, animal production, horticulture and plant production. These areas embody the fundamentals of precision agriculture.

Students gain unique agrotechnical knowledge (e.g., horse, rabbit and furred animal breeding, fish farming, forestry and game management). They also work extensively with nutrition and hygiene, organising and directing waste management, observing environmental aspects, and preparing economic plans, calculations, as well as organising marketing activities.

Throughout the program, there is a focus on developing skills such as planning, directing, controlling, performing and dealing with the processing and marketing of agricultural products in agricultural companies of various sizes and types.

Cutting-edge research projects and training are supported by the Faculty's own farm and its excellent network of contacts with the region's leading agricultural companies and research institutes. Our students can complete their 14-week compulsory professional practice at the above-mentioned companies and institutes. The in-depth theoretical and practical knowledge provided by the program prepares students for participation in a wide range of different master's program related to agriculture.

## INTERNATIONALISATION STRATEGY OF THE FACULTY OF AGRICULTURE

One of the strategic priorities of the Faculty of Agriculture of the University of Szeged is the internationalisation of its higher education structure. We work to promote student and faculty mobility and to deepen and expand international cooperation in the fields of education-research-innovation.

Extensive inter-university international relations contribute to improving the quality of education, broadening the outlook of academia and to the successful preparation of students on the labour market. The Faculty of Agriculture provides a multicultural environment for all of its students through various mobility and scholarship schemes. Many of its lecturers have international experience, which is used in both education and research.

The international reputation of the Faculty of Agriculture is proven by the fact that the number of international students is increasing year by year as well as the number of its bilateral international inter-university collaborations.

In order to support international mobility, and also academic, research and education cooperation, the Faculty of Agriculture maintains fruitful collaborations with more than one hundred highly-ranked higher education institutions in 24 countries from all over the world in the frame of the EU's Erasmus and Hungarian Pannónia exchange program. We are proud to have very active cooperation with different countries, such as France, Romania, Slovakia, Croatia and so on.



Erasmus students are warmly welcomed at our Faculty in the frame of studying mobility and at our Pilot Farm in Hódmezővásárhely due to our training program. At our Pilot Farm and same laboratories, the students can gain deeper and precious insight into the practical side of the agriculture.

Due to other international Erasmus programs, we have strong collaboration with the University of Life Sciences "King Mihai I" from Timisoara (Romania), École Nationale d'Agriculture de Meknès (Morocco), Institut Agronomique et Veterinaire Hassan II (Morocco), same institutions and universities from Algeria and with different research centres in Tunisia.

We are also proud to be part of several scholarship programs, such as Stipendium Hungaricum, Scholarship Programme for Christian Young People, Scholarship for the Hungarian Diaspora, IISMA and so on. We are also glad to be involved in international initiatives like EUGLOH.

We have highly significant cooperation in the field of education and research with several well-respected institutes in China.

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Hódmezővásárhely,  
2025.



# SZTE SZEGEDI TUDOMÁNYEGYETEM

