



# CONIVERSITY OF PANNONIA

GEORGIKON FACULTY

Keszthely



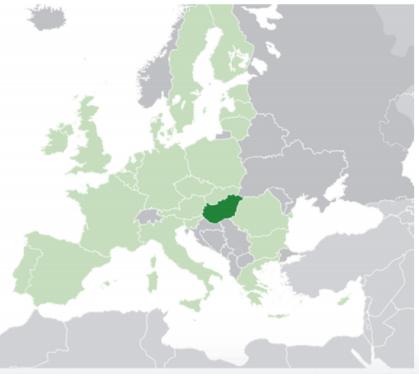




# HUNGARY



CAPITAL Budapest			
OFFICIAL LANGUAGE	Hungarian		
GOVERNMENT	Parliamentary republic		
FOUNDATION			
Foundation of Hungary Recognized as Christian kir Current 3 <sup>ra</sup> republic	895 ingdom 1000 23 October 1989		
AREA	93,030 km²		
POPULATION	9,942,000		
CURRENCY Forint (HUF)			
TIME ZONE	CET (UTC+1)		
DATE FORMATS	yyyy, mm. dd		









**HUNGARY** is one of the oldest European countries, situated in the middle of the continent, in Central Europe. Its history dates back until 895, when almost the whole territory of Hungary was invaded by the Magyars, who later founded their kingdom.

Hungary has a very diverse heritage in architecture, craftsmanship, folk music and dance. Traditions are preserved in many of Hungary's small villages, kept alive by local communities, e.g. Hollókő and Őrség.



The noteworthy values of Hungary are called "Hungaricums", which characterize the Hungarians by their uniqueness, specialty and quality, like the Pálinka, Tokaji Aszú, Szamos Marzipan, Porcelain of Herend, Mangalica, Hungarian Vizsla, just to name only a couple from the neverending list.

Hungarian people are said to be talented and ingenious, the country is proud of a few internationally significant an Nobel Prize winner inventors, musicians, artists and sportsmen. Source: http://gotohungary.com/en\_GB









Hungary – world of potentials

http://www.youtube.com/watch?v=Hmz8Ni9zO4M





# Major cities



**BUDAPEST** – the capital city of Hungary and a principal political, commercial, industrial and transportation centre in the country. Our most densely populated city (2 million inhabitants) lies on the banks of the Danube. It has vibrant cultural life: addition to the colourful programs, festival throughout the whole year, a lot of museums, theatres ensure the amusement.

**DEBRECEN** is the second largest city in Hungary with a population of 200,000. It is the regional centre of the Northern Great Plain region. The city has preserved its ancient mercantile character and has a rich cultural life, great intellectual heritage originating from the 16<sup>th</sup> century. The most noted event of Debrecen is the flower carnival organised at 20 August.



**SZEGED** is the largest town in south-eastern Hungary, with 163 thousand inhabitants, and is situated at the confluence of the rivers Tisza and Maros, about 165 km from Budapest. It is often referred to as "The city of sunshine". The Paprika of Szeged, the Pick Salami and the fish soup confirm the reputation of the city, besides its significant history and culture.





# Major cities

**PÉCS** is frequently mentioned as the "2,000-year-old town" as its history dates back until the Roman era, when it was called "Sopianae". At present, it is the intellectual, cultural and administrative centre of the South Transdanubia region. Pécs was Europe's Cultural Capital in 2010.





**GYŐR**, the dynamically developing city, lies halfway between Budapest and Vienna, with an excellent accessibility. It is often referred to as "The city of waters" as it is situated at the confluence point of four rivers. Historically, Győr was a Roman fortress, and nowadays, it is the most important city of north-western Hungary.

**VESZPRÉM,** "The city of Queens". is one of the oldest cities in Hungary, it lies in the central Transdanubian region. The city has always played an important religious role in the history, its St. Micheal Cathedral is considered to be the first and oldest cathedral in Hungary.









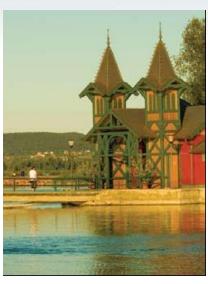












Closer glimpse into Keszthely











The city of **KESZTHELY** is located in the **western part of Hungary**, about 200 km from the capital city of Budapest and on the western shore of Balaton that is one of the biggest lakes in Central Europe. Keszthely is easily and rather quickly accessible by car from both Budapest and Vienna (Austria). It is a cultural, touristic and educational centre, a university town of almost 23.000 inhabitants. Keszthely is often referred to as the "capital of Balaton".

Historically, the first tracks originate from 500 - 700 when Romanized residents of Pannonia lived near the fortified village of Castellum (now Keszthely), near the lake Balaton; however, was first mentioned in written sources in 1247. The most significant era was the 18-19<sup>th</sup> century. The Festetics family purchased an estate there, as a result of their activities, the Festetics Castle was built, riding school and the first regular agricultural higher education institution on the Continent of Europe was established, the Georgikon.

Nowadays, Keszthely attracts a lot of tourists almost during the whole year. In the summer, several festivals and colourful programs are organised, additionally, its relaxing beaches and wide range of museums offer good entertainment. Besides these, the surrounding area, Hévíz, Tihany, Badacsony, is also worth visiting.





# SHORT HISTORY of Georgikon

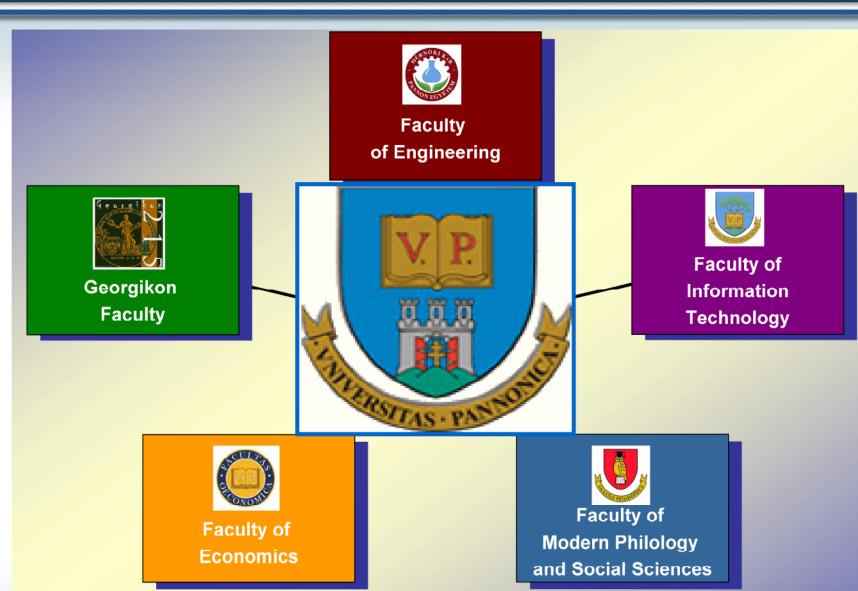
Our legal predecessor, the Georgikon of Keszthely was founded by György Festetics in 1797 as the first agricultural higher education institution in Europe. Its functions ranged from providing elementary and secondary vocational education to offering courses in law, engineering and forestry. Almost two centuries after its establishment the institution was transformed into the Georgikon Faculty of the Pannon University of Agricultural Sciences and continued to perform a wide range of activities until 2000. As a result of the integration of higher education institutions, the Pannon University of Agricultural Sciences and the University of Veszprém integrated under the name "University of Veszprém". From 1st March 2006, the official name of the institution is University of Pannonia.





























# GEORGIKON in general

#### **DEPARTMENTS**

- Department of Animal Sciences and Animal Husbandry
- Department of Plant Sciences and Biotechnology
- Department of Crop Production and Soil Sciences
- Department of Horticulture
- Institute of Plant Protection
- Department of Meteorology and Water Management
- Department of Agricultural Mechanisation
- Department of Economic Methodology
- Department of Economic and Social Sciences
- Department of Corporate Economics and Rural Development
- Department of Foreign Languages
- Potato Research Centre







# Education

#### **BACHELOR PROGRAMMES**

(6+1 semesters)

- Agricultural Engineer
- Agricultural Environmental Engineering
- Animal Husbandry Engineer
- Agribusiness and Rural Development
- Agricultural Information Technology and Policy Administration
- Horticultural Engineer
- Field Crop Production
- Oenology and Viticulture
- Nature Conservation Engineer
- Tourism and Catering

#### **MASTER PROGRAMMES**

(4 semesters)

- Agriculture
- Agricultural Environmental Engineering
- Animal Husbandry
- Rural Development and Agribusiness
- Economic Agriculture
- Horticultural Engineer
- Agricultural Biotechnology
- Plant Protection
- Animal Nutrition and Feed Safety
- Nature Conservation Engineer

IN ENGLISH:
Agriculture • Plant Protection



# MSc in Agriculture

#### **EDUCATION GOALS:**

Our MSc Degree Program in Agriculture provides expertise for the students to enable them the synthesized use of natural, agricultural, technical and economic knowledge, directing the technology, business and labour organization of agricultural production, as well as the management of applications. MSc Degree holders have all the skills and expertises for a creative work, mastering tasks in innovation, planning and development, joining the scientific work, research and for the admission of PhD training programs.

The Program offers an advanced level and up-to-date education at each area of agricultural production. This provides a stable background for the further improvement of their knowledge to meet the requirements of any professional field within the European Union or in international relations.

#### **SPECIALISATIONS:**

- Animal Sciences: Population Genetics, Animal Reproductive Physiology, Animal Nutrition, Feeding Technology and Management, Qualification of Animal Products.
- Crop Sciences and Soil Management: Integrated Production of Field Crops and Horticultural Plants, Biotechnology, Applied Soil Science, Nutrient Management, Irrigated Farming. Soil Information Systems
- *Economic and Social Sciences:* Environmental and Quality Assurance, Farm Management, Trade and Marketing





### **SYLLABUS** – compolsury courses

SEMESTER		COURSE NAME	CREDIT
	1 st	Applied Plant Physiology and Biotechnology	c4RI
	S	Physiological and Reproduct Aspects of Animal Production	4
	E E	Land Use	2
	M	Applied Soil Science	3
	E	Information Technology in Agriculture	2
	S T	Animal Nutrition	4
1 <sup>st</sup>	E	Animal Breeding and Husbandry	4
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	R	Applied Biochemistry	4
Y E		Sum:	27
A	2nd	Biometrics	2
R	2110	Agricultural Machinery	2
	S	Integrated Production of Field Crops I.	3
	Е	Nutrient Management	3
	M E	Management and Organisation	$A_2$
	S	Environmental Protection	3
	T	Water Management	3
	Е	Preparation of MSc Thesis I.	5
	R	Sum:	23

	SEMI	ESTER	COURSE NAME	CREDIT
RIG	IDI	3rd	Integrated Production of Field Crops II.	2
	200	S	Integrated Horticultural Production	3
**		E	Economics of Farm Enterprises I.	2
	18	M E	Trade and Marketing	3
		S	Research Methodology	3
	2 <sup>nd</sup>	T — E	Preparation of MSc Thesis II.	10
Th	Y	R	Sum:	23
V	E A	4 <sup>th</sup>	Environmental and Alternative Economics	3
	R	S E	Project Management	2
		M	Economics of Farm Enterprises II.	2
		E S	Environmental Impact of Agricultural Production	3
1223		T	Soil and Water in Rangeland Systems	3
D.	C.C	Е	Preparation of MSc Thesis III.	15
		R	Sum:	28





### **SYLLABUS** – specializations, optional courses

SPECIALIZATIONS	CREDIT	SEMESTER		
1. ANIMAL PRODUCTION	13	2.	3.	4.
Applied Genetics	3 0	X	7 1-	
Animal Breeding Organisation	3	X		
Analysis of Feed and Animal Product	2	X		
Animal Production Technology	3	TR.	X	
Feed Manufacturing	2		$\forall J$	X
2. CROP PRODUCTION AND SOIL MANAGEMENT	13	2.	3.	4.
Applied Genetics	3	X		
Guidelines of Sustainable Development	2		X	// (/
Soil Information Systems	2	200	X	111
Irrigated Crop Production	2		X	
Risk Assessment of GM Crops	2	3 6		X
Seed Production	2			X
3. AGRICULTURAL ECONOMICS	13	2.	3.	4.
Macro-economics and Policy	3 A	X	UL	. C
Agricultural and Rural Development Policy of the EU	2	X		
Agricultural and Rural Development Policy	2		X	
Applied Statistical Methods in Agro-Economics	2		X	
International Agricultural Trade	2			X
Corporate Social Responsibility	2			X

COLIDGE NAME	CREDIT	SEMESTER			
COURSE NAME	COURSE NAME CREDIT		2.	3.	4.
Farm Practice	0		X		
OPTIONAL COURSES	6				
Environmental Soil Science	4	X			
Fish Culture	3	X			
Aquaculture	3		X		
Hungarian Language for Foreigners I.	0		X		
Environmental and Agricultural Bioethics	2			X	
Hungarian Language for Foreigners II.	0			X	
Genetics of Plant Nutrition	2			X	
Agricultural toxicology	4			X	
Fruit Production	2			X	
Human Nutrition	2				X
Tropical Crop Production	3				X
Trade and Marketing of Animal Products	2				X
Pollution and Remediation of Soil and Water	2				X
Soil Biology	2				X



### MSc in Plant Protection

#### **EDUCATION GOALS:**

The aim of the program is to train specialists of plant protection who are able to fulfill directional, managing, organizing, consulting, regulating and marketing tasks, based on their wide theoretical knowledge.

Such experts are able to detect the organisms, which are threatening plants (pathogens, pests, weeds) and they are acquainted with their biology and reproduction, and also with the effects and mechanism of pesticides concerning even the environment and humane hygiene. They can prevent the harms and damages caused by the abovementioned organisms and they are applying the procedures of ecological and integrated plant protection in order to reduce the pesticide-load of the environment. In their work they are always attentive to the safety of food, processors, consumers and the environment. Having a degree in higher education they are permitted to use restricted chemicals.

The further aim is to prepare the interested and inspired students for research work and PhD training in the field of plant protection.





#### **SYLLABUS** – compolsury courses

SEM	ESTER	COURSE NAME	CREDIT	RI
	1 <sup>ST</sup>	Applied Biochemistry	0 4	
	S	Applied Plant Physiology and Biotechnology	5	
	E M	Applied Genetics	4	
	Е	Information Technology in Agriculture	3	
	S T	Applied Soil Science	4	Ц
	Е	Soil Management and Plant Production	6	
1st	R	Sum:	26	V
Y		Applied Entomology	333	
E A		Environmental Protection	3	
R	2 <sup>ND</sup> S	Biometrics	3	
	Е	Plant Pathology	EURGI400	_L
	M E S	Herbology, Weed Biology and Weed Knowledge	AÐJU	D
	Т	Insect Physiology and Ecology	2	
	E R	Diagnostic training	4	
		Preparation of MSc Thesis I.	6	
		Sum:	28	

SEME	ESTER	COURSE NAME	CREDIT
	-	Trade and Marketing	3
	3 <sup>RD</sup>	Applied Plant Pathology	3
N S	S E	Application Technology of Plant Protection Machines	4
	M E	Pesticide Chemistry	3
	S	Toxicology and Ecotoxicology	3
	T E	Weed Management	4
2 <sup>ND</sup>	R	Economics of Farm Enterprises I.	2
Y E		Preparation of MSc Thesis II.	10
A		Sum:	32
R	4 <sup>TH</sup>	Biological and Ecological Plant Protection	2
	S	Integrated Plant Protection	6
C	E M I	Plant Protection Forecasting	3
	E S	Plant Protection Administration	2
	T	Economics of Farm Enterprises II.	3
	E R	Preparation of MSc Thesis III.	12
		Sum:	28





### **SYLLABUS** – optional courses

OPTIONAL COURSES	CREDIT
Land Use	2
Bioethics	2
Hungarian Language for Foreigners I.	0
Genetics of Plant Nutrition	2
Guidelines of Sustainable Development	2
Organic farming	2
Special policies of the EU	5 2
Hungarian Language for Foreigners II.	0
Fruit Production	2
Seed Production	2
Remote Sensing and Applications	3
Molecular Plant Pathology	2
Tropical Crop Production	3
Risk Assessment of GM Crops	2
Irrigated Crop Production	2
Soil biology	2
Project Management	2





### PhD PROGRAMS

#### The Faculty has 3 PhD schools in the following fields:

#### I. Ph.D. School for Animal and Agro-Environmental Sciences

Short introduction to the field of research: Animal production based on grazing, Dairy and beef cattle breeding, Pig breeding, Poultry sciences, Aquaculture, Game farming, Nutrition of monograstic farm animals, Production physiology of ruminants, Applied molecular genetics in animal production

#### II. Ph.D. School of Crop Production and Horticultural Sciences

Short introduction to the field of research: Plant nutrition and soil fertility, Long-term experiments of soil fertility, Soil physics and water balance, Experimental trails for nutrient dynamics and nutrient stresses, Soil loading and the pollution of natural waters, Biology, Ecology of plant pathogens and the resistance, Plant breeding, Genetics and agrobiotechnology

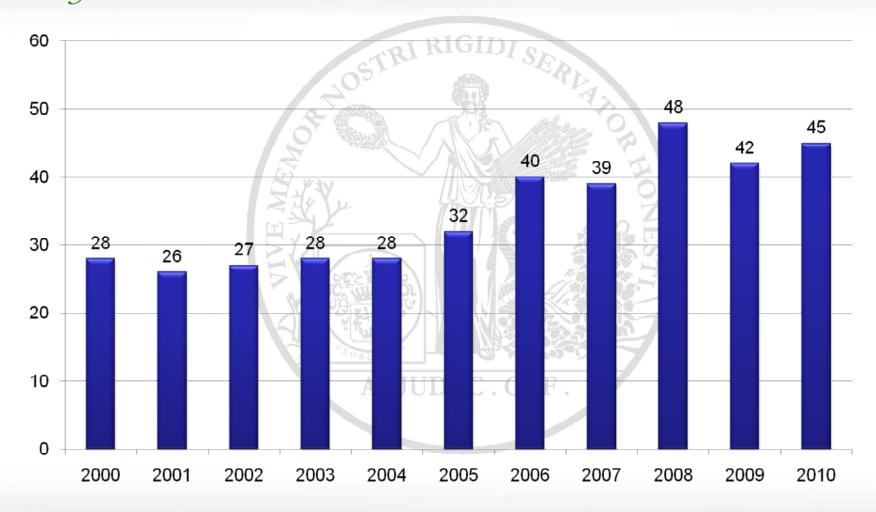
#### III. Ph.D. School for Management and Business Administration

Short introduction to the field of research: Agricultural economics, Management sciences, Economics





### 1st year PhD students AT THE UNIVERSITY OF PANNONIA







# RESEARCH FIELDS at Georgikon Faculty

#### **PLANT SCIENCES**

• Selection of vegetable varieties
green pepper, beans, onions,
lettuce, apple, wine grapes,
pear gene bank

#### • Potato research on:

Variety breeding
Improvement of complex resistance against pathogens and pests
Transgenic breeding
Production technology
Storage technology



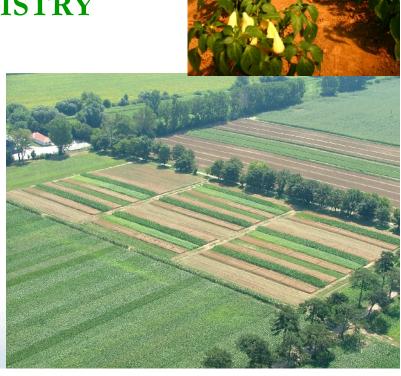


#### PLANT PROTECTION

- application technologies of integrated plant protection
- plant diseases (virology, bacteriology, mycology)
- pests (nematodology, entomology, etc.)
- weed biology & regulation
- environmental protection and toxicology

# CROP PRODUCTION, AGROCHEMISTRY AND SOIL SCIENCE

- plant nutrition
- fertilisation
- management of soil fertility
- long term field trials
- soil productivity
- soil physics
- soil plant nutrient circulation
- soil and water management







#### **ANIMAL SCIENCES**

- Population genetics, development of the technologies in pig and beef cattle breeding
- Research on the impact of nutrition on quality and quantity of animal products
  - Poultry
  - Pigs
  - Ruminants (cattle)
- Research on freshwater fish population in Lake Balaton
- Fauna of the northern shore of Lake Balaton
- Research on metabolism of farm animals
- Biology and management of the *game population* in the Western Basin of Lake Balaton







#### **AGRICULTURAL MECHANISATION**

- new technologies in chemicals spraying
- alternative energy sources

#### **INFORMATION TECHNOLOGY**

- information system for agricultural production
- applications of GIS and digital image processing for agriculture







#### **ECONOMICS AND SOCIAL SCIENCES**

#### Education:

Economics, Sociology, Regional Economics, Marketing, Business Management and Planning, Business Finance, European Studies, Rural Development

#### Research:

rural development, rural lifestyles dynamics of economic processes, regional differences economic and social progress in the Lake Balaton Area new farm structures, ownership and business types, home and international food markets





## Facilities FOR RESEARCH AND EDUCATION

- Central Library
- Computing facilities (PCs)
- Internet access

Experimental and
 Demonstration Farm

Laboratories







# Regional role OF THE FACULTY

- Environmentally sustainable farming in the region
- Rural development and NUTS4 projects
- Natural resources and environmental projects
- Vegetable and fruit variety selection
- Wine grape selection, research and extension
- Pasture management, beef cattle research





# International cooperation IN EDUCATION

- Curriculum development in farm management and rural development (TEMPUS, 1991 1997)
- Mobility of students, academic staff and administrative staff (LLLP ERASMUS, CEEPUS, Campus Hungary)
- Development of tertiary vocational training (LEONARDO)
- Strengthening the connections of higher education and the economy (INTERREG, Regional Development Fund)
- International training and practice for students





### SOCIAL EVENTS



Students Days











#### FAREWELL CEREMONY

















#### CONTACTS

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HUNGARY

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