

**WARSAW UNIVERSITY OF LIFE SCIENCES – SGGW  
(WULS–SGGW)  
Warsaw, Poland**

**STUDY PROGRAMMES  
IN ENGLISH**

**Warsaw University of Life Sciences - SGGW (WULS-SGGW), with its nearly 200-year tradition is one of the oldest and the largest universities in Poland. It is also one of the most modern universities, where tradition and modernity meet. The campus has a historic part, with an 18th century palace, and a contemporary part where all faculty buildings and dormitories are situated. WULS-SGGW offers good facilities and infrastructure in one place. On our 65-hectare main campus we have 9 dormitories, a modern library, a computer centre, a sports centre (with tennis courts, a sports hall and a swimming pool) a language centre, a veterinary clinic and much more. The campus is located in the southern part of Warsaw and can be easily reached from the city centre by subway or by bus. Over 1,200 university teachers and instructors make sure that you will gain plenty of knowledge and practical skills. At present, the university consists of 13 faculties and 5 interfaculty units; there are 27,000 students enrolled. WULS-SGGW has been declared number one in the rankings of life science universities in Poland, and has always been in the top ten of Polish universities.**

### **Study programmes**

The range of the academic programmes is systematically enlarged and currently includes 28 study programmes, of which 22 are offered by the Faculties and 5 are Interfaculty Studies. Within study programmes there are 70 areas of specializations. Academic programmes are offered at the bachelor, master and doctoral levels, there is also a postgraduate MBA programme.

### **Research and education is carried out at:**

#### **13 Faculties:**

- Faculty of Agriculture and Biology
- Faculty of Forestry
- Faculty of Horticulture and Landscape Architecture
- Faculty of Animal Science
- Faculty of Engineering and Environmental Science
- Faculty of Wood Technology
- Faculty of Veterinary Medicine
- Faculty of Economic Sciences
- Faculty of Food Sciences
- Faculty of Human Nutrition and Consumer Science
- Faculty of Production Engineering
- Faculty of Humanities
- Faculty of Applied Informatics and Mathematics

#### **and 5 Interfaculty Studies (only education):**

- Interfaculty Study of Biotechnology
- Interfaculty Study of Environmental Protection
- Interfaculty Study of Regional Planning
- Interfaculty Study of Commodity Science
- Interfaculty Study of Tourism and Recreation

## **International Cooperation**

International collaboration plays an important role in University activities by contributing to the expansion of research and standardization of teaching programmes. Overall, the University collaborates with 170 international partners from all continents. On the annual basis, about 1400 University employees and students travel internationally (including about 200 students participating in international practical training programmes). WULS-SGGW is a member of prestigious international organizations such as the Euroleague for Life Sciences (ELLS), European Universities Association (EUA) and many others. The University is active among Polish minorities in Lithuania, Ukraine and Belarus by offering modern education programmes and highly qualified experts. Since 1990 WULS-SGGW has actively participated in the European programmes as a university from an associate, a candidate and since 2004 from an EU Member state. Currently, the staff of WULS-SGGW participate in European educational programmes (Erasmus, Erasmus Mundus, Erasmus Mundus External Cooperation Window, CEEPUS, Leonardo da Vinci, Grundtvig, Jean Monnet, Tempus) and research programmes (6 and 7 Framework Programme, EUREKA, COST, Culture 2000).

For international students, we also offer six master programmes (of duration of three or four semesters) and 11-semester programme leading to a Veterinary Surgeon degree, all taught exclusively in English.

### **The master programmes are as follows:**

- Environmental Protection
- Economics
- Computer Sciences and Econometrics
- Forestry
- Horticulture
- Environmental Engineering

**M.Sc. in Environmental Protection**  
**Major: Restoration and Management of Environment**  
*Interfaculty Study of Environmental Protection*

**Mission of the Study**

The Interfaculty Study of Environmental Protection aims at providing students with a comprehensive and interdisciplinary environmental knowledge presented by the best specialists from a range of scientific areas from different faculties of Warsaw University of Life Sciences - SGGW.

**Aim of the specialization (major)**

This specialization has been established to provide its students with (i) understanding of biological processes, legal aspects and management rules of environmental protection, and (ii) a range of tools for future specialists who will be capable of securing the good quality of the environment and who will possess skills to solve problems regarding the natural environment on different levels.

**Detailed programme of studies**

The programme is divided into three semesters. It consists of both lectures and seminar classes/labwork. The detailed list of subjects is as follows:

- a) *First year:* Ecotoxicology, Mathematics and statistics, Environmental policy, Plant adaptation to environmental stresses, Ecological bases of nature conservation, Integrated water resources management and restoration, Hydrogenic soils, Environmental aspect in landscape planning and design, Soil biology, Ecological infrastructure in agricultural landscape, Restoration to ecosystem of wild medicinal plants, Case study of environment restoration – part I, Land and water conservation, Ecological engineering for environmental protection, Soil hazard pollution and protection
- b) *Second Year:* Environmental processes modeling, Conservation and restoration of insects to ecosystem, Environmental aspects of diseases of free living animals, Reforestation, Ecotourism, Risk analysis, Project management, Case study of environment restoration – part II, Diploma seminar.

**Requirements**

Bachelor degree or equivalent in Environmental Sciences, Biology or Agriculture.  
Confirmed command of English.

**Duration:** three semesters; start: 1<sup>st</sup> March

**Recruitment**

Application deadline: 15 January

Qualification based on results from the first degree studies (grade average) and on scientific interests.

Verified command of English

Number of the places available: 15 to 17.

Tuition fee: 2200 Euro per one academic year

**CONTACT: Interfaculty Study of Environmental Protection**

tel.: (+48 22) 593-20-82

e-mail: [stanislaw\\_gawronski@sggw.pl](mailto:stanislaw_gawronski@sggw.pl)

**M.Sc. in Economics**  
**Major: Economics and Organization of Enterprises**  
*Faculty of Economic Sciences*

**Mission of the Faculty**

The mission of the Faculty is to form economists who would understand the contemporary economic world and analyze it using analytical methods. The ability to fully understand the functioning of the local and the global economies are essential for leaders in both the public and private sectors. A good knowledge of the impact that different economic policies, competitive strategies and consumer behaviors have on companies and their environment provides managers a competitive edge.

**Mission of the specialization (major)**

The aim of this two - year programme is to provide students with broad academic knowledge and to facilitate them to develop skills that would prepare them for careers in the dynamic global business environment. Graduates of the programme will be ready for corporate careers, positions in government and for starting and running their own businesses.

**Detailed programme of studies**

- a) *First year:* Mathematical Statistics, Forecasting Business Processes, Advanced Macroeconomics, Business Law, Financial and Capital Markets, Managerial Economics, Economics and Organization of Production, Local Finances, Master seminar.
- b) *Second year:* Economic Policy of the E.U., Economics of the Natural Environment, Strategic Management with Element of TQM, International Management, Operations Management, European Social Policy, Public Management, Theory of Decision Making, Bioeconomy, Supply Chain Management, Small and Medium Enterprises in EU, Sustainable Rural Development, Corporate Social Responsibility, Master's Seminar, Thesis elaboration and additional elective courses.

**Educational outcomes**

The graduates are expected to be able to have the capacity to analyze business and economic problems and to devise new strategies and solutions. They are expected to find jobs in central or local administration, institutions working in rural policy of EU, boards of companies operating in sector of food economics, in analysis departments, companies, investment funds, scientific and research institutions.

**Requirements**

Completed the first degree of studies

Bachelor in: economy, finance and accountancy, management, logistics.

**Duration:** four semesters for the graduated from the Bachelor Studies; start: 1<sup>st</sup> October

**Recruitment**

Qualification based on results from the first degree studies (grade average)

Verified command of English

Number of the place available: 15 to 17.

Tuition Fee: 2200 Euro per one academic year

Registration Fee – 200 Euro (non - refundable)

**CONTACT:** Faculty of Economic Sciences

e-mail: [meo@sggw.pl](mailto:meo@sggw.pl)

web: <http://www.wne.sggw.pl/studia/program-meo/overview/>

**M.Sc. in Computer Science and Econometrics**  
**Major: Information Systems in Management**  
*Faculty of Applied Informatics and Mathematics*

**Mission of the Faculty**

The modern economy is fully supported by the computer science. The financial sector and rural economy are among many social and economical domains undergoing deep changes. The mission of the Faculty is to form engineers who understand the contemporary world and analyze it using computer methods and algorithms. An important role in this task plays the specialization of Information Systems in Management

**Mission of the specialization (major)**

The specialization, realized fully in English, focuses on the computer science tools used in the economical institutions, such as banks, stock markets etc. It is aimed at education of computer engineers and economical analysts. This specialty is focused on the use of high level programming languages, design and programming of the databases, the design and administration of the computer networks and modern information systems.

**Detailed programme of studies**

- a) *Econometrics part*: Differential and Difference Equations – Applications, Actuarial Methods, Mathematical Economics, Statistical Analysis in the Market Research, Operational Research – Applications, Dynamic Econometrics, Representative Methods, Financial Econometrics, Multidimensional Data Analysis, Theory of Forecasting and Simulations
- b) *Informatics part*: Software Engineering, Computer Networks, Oracle Databases, Automata, Grammars and Formal Languages, Programming Paradigms, Computer Architecture, Teleinformatics, Management Information Systems.

Additional elective courses

**Educational outcomes**

The graduates of management Information Systems are expected to find jobs in central or local administration, centres of information processing for the needs of rural policies in EU, boards of companies operating in sector of food economics, in analysis departments of banks, brokerage companies, investment funds and scientific and research institutions.

**Requirements**

Completed the first degree of studies:

- a) Engineering in specializations: informatics, mathematics, electronics, electrical engineering, logistics, production engineering
- b) Bachelor in specializations: economy, financial, management, informatics and econometrics.

**Duration:** three semesters for the graduated from the Engineering studies; start 1<sup>st</sup> March  
four semesters for the graduated from the Bachelor Studies; start 1<sup>st</sup> October

**Recruitment**

Qualification based on results from the first degree studies (grades average)

Verified command of English

Number of the place available: 15 to 17.

Tuition Fee: 2200 Euro per one academic year

**CONTACT:** **Faculty of Applied Informatics and Mathematics**  
tel.: (+48 22) 593-72-12 or 593-72-15  
e-mail: [wzim@sggw.pl](mailto:wzim@sggw.pl)

**M.Sc. in Forestry**  
**Major: Forest Information Technology**  
*Faculty of Forestry*

**Mission of the Faculty**

Our mission is to provide modern interdisciplinary education based on sound scientific research, close collaboration with practitioners and wide international cooperation in order to prepare professionals working first of all for forestry, environment and nature protection.

**Mission of the specialization (major)**

International Master Study Program Forest Information Technology (FIT) is a joint initiative of the Faculty of Forestry at Warsaw University of Life Sciences-SGGW (WULS-SGGW) in Warsaw, Poland, and the Faculty of Forest and Environment of the University of Sustainable Development (USDE) in Eberswalde, Germany. This is a double-degree, joint curriculum programme taught in English that enables its participants to achieve the Master of Science degree from both partner universities. FIT is an interdisciplinary education offer with its main focus on environmental information technologies (IT), forest ecosystem research, forest management and landscape research.

**Detailed programme of studies**

- a) *First year:* First semester is placed at the USDE and is characterized by impartation of basic knowledge of environmental information technologies. Second semester takes place at the WULS-SGGW and focuses on the impartation of continuative knowledge of environmental information technologies including specific silvicultural contents.
- b) *Second year:* During the third semester an independent research project is planned at WULS-SGGW, USDE or other partner institution in Germany, Poland or abroad, accompanied with a range of elective courses. Fourth semester is devoted mostly to Master thesis preparation.

**Educational outcomes**

Students will be enabled to detect relevant IT application areas and to plan and to technologically promote corresponding innovation processes. Students learn to solve complex problems based on a deepened and extended understanding of structures, processes and relationships within ecosystems, landscapes as well as within the sphere of forestry and based on a broad spectrum of scientific methods and tools for the collection, analysis, storage, visualization and communication of environmental data.

**Requirements**

Bachelor degree or comparable in Forestry, Biolog, Agriculture, Landscape Planning or related Natural Sciences. Confirmed command of English.

**Duration:** four semesters for the graduated from the Bachelor Studies; start: 1<sup>st</sup> October

**Recruitment**

Enrolment of Polish students is organized by WULS-SGGW in Poland. German and foreign candidates are recruited by USDE in Germany. Applications of foreign candidates are processed by UNI-ASSIST (<http://www.uni-assist.de/>). Number of places available: 25. Tuition Fee: according to the agreement - no Tuition Fee. Registration Fee (non - refundable) – see local regulations at WULS-SGGW and USDE.

**CONTACT: Dr Michał Brach, WULS-SGGW Faculty of Forestry**

Tel: (+48 22) 59 38213

e-mail: [Michal.Brach@wl.sggw.pl](mailto:Michal.Brach@wl.sggw.pl), web: <http://wl.sggw.pl>

**Prof. dr Alfred Schultz, USDE, Faculty of Forest and Environment**

Tel: (+49) 03334 65 431

e-mail: [Alfred.Schultz@hnee.de](mailto:Alfred.Schultz@hnee.de), web: <http://www.hnee.de>

**M. Sc. in Horticulture**  
**Major: Horticulture**  
*Faculty of Horticulture and Landscape Architecture*  
**Start in: February 2011**

**Mission of the Faculty**

Horticultural plants are a very important part of human environment, human diet and are used in a natural medicine as a remedy against many civilization diseases.

The faculty of Horticulture and Landscape Architecture aims at providing students with a comprehensive knowledge of modern horticulture, including growing and postharvest technologies of main horticultural crops grown in temperate climate conditions - vegetable crops, medicinal plants, fruits, ornamental plants, knowledge of integrated pest management, pro-ecological production, biotechnological methods of plant breeding, landscape protection, etc.

**Mission of the specialization (major)**

The specialization in horticulture has been established to provide students with understanding of biological background in growing horticultural crops and postharvest "life" of vegetables, fruits and ornamental plants. In addition, the programme aims to introduce students to the up-to-date knowledge of environmental-friendly and ecological methods of production of vegetables, fruits and medicinal plants, their storage and postharvest technologies, of using ornamental plants in human environment as well as knowledge of integrated pest management (IPM).

**Detailed programme of the studies**

- a) *First year:* Sustainable horticulture including production of vegetable crops, herbs, fruits, ornamental plants and integrated pest management; molecular biology; mathematical statistics and planning experiments; how to live with flowers; medicinal plants grown wild in Europe; modern trends in world horticulture; background in landscape protection and ecology; ecotoxicology; postharvest biology and technology; plants in the diet and in the prevention of civilization diseases; flowers arrangement; propagation of ornamental plants; advanced plant pathology, diploma seminar
- b) *Second Year:* Modern trends in world horticulture; quality evaluation of plant raw material; agricultural acarology; ecological infrastructure of horticultural farms; environmental stresses in plant cultivation; plant biotechnology; diploma seminar.

**Educational outcomes**

Students are acquainted with the principles of sustainable horticulture, processes influencing biological value of plant produce. In addition, they gain the skills how to plan and organize production and storage of horticultural crops, as well as how to arrange human environment with ornamental plants. They obtain the diploma: Master of Sciences in Horticulture (Magister inżynier ogrodnictwa).

**Requirements**

Bachelor degree in Horticulture, Agriculture, Biology or Environmental Sciences. Verified command of English. Students graduated from Polish universities are also welcome (without paying fee).

**Duration:** three semesters; start: 1<sup>st</sup> March

**Recruitment**

Application deadline: 15 January

Qualification based on results from the first degree studies ( grades average) and motivation letter.

Verified command of English.

Number of places available: 15 to 17.

Tuition fee: 2200 EUR per one academic year.

**CONTACT: Faculty of Horticulture and Landscape Architecture**

tel. (+48 22) 593 22 50

e-mail: [marek\\_gajewski@sggw.pl](mailto:marek_gajewski@sggw.pl), [dwoa@sggw.pl](mailto:dwoa@sggw.pl)

**M.Sc. in Environmental Engineering**  
**Major: Information Systems in Water Resources Management**  
*Faculty of Engineering and Environmental Science*  
***Start in: March 2011***

**Mission of the Faculty**

Sustainable development of the modern society requires, among others, specialists able to describe, understand and analyze processes occurring in the environment and apply to that engineering knowledge and solutions. The mission of the Faculty is to form engineers who understand environmental complexity of the contemporary world and analyze it using modern engineering methods and tools.

**Mission of the specialization (major)**

The specialization programme focuses on the scientific analysis of physical, environmental, technical, socio-economic and legal aspects of water resources management. It aims to provide students with understanding of these aspects and their mutual interactions and with ability to devise sustainable and technically effective solutions to water resources management. An application of the Information Systems plays an important role in achieving this aim.

**Detailed programme of studies**

The taught programme is divided into five thematic blocks: Hydrological Processes, Water Management, Information Systems, Mathematical Modelling and Governance. The subjects are realized during four semesters:

- a) *First year:* Statistics, Environmental chemistry, Spatial planning, Reliability and safety of engineering systems, Environmental management, Proecological technologies, Environmental monitoring, Technology and management of construction engineering, Environmental information systems, Soil physics and hydrology, Advanced hydrology, Advanced meteorology, Water reservoirs, Land and water development
- b) *Second Year:* Pollution and protection of water, River hydromorphology and restoration, Remote sensing techniques, Surface water modelling, Waste water management, Environmental geotechnics, Ground water flow modelling, Diploma seminar, Optimisation techniques, Economy of water resources, Water law and administration, Integrated water resources management

**Educational outcomes**

Graduates of the specialization are expected to find jobs as academically trained professionals or scientists in a wide range of public and private institutions of different levels (local and central administration, water companies, scientific and research institutions, consultancies, NGOs) working in such fields as: water management and consulting, environmental protection, implementation of EU policy, hydrological engineering.

**Requirements**

Engineering degree or equivalent in Environmental Engineering.

**Duration:** four semesters; start: 1<sup>st</sup> March

**Recruitment**

Qualification based on average results from the first degree studies

Verified command of English

Number of the place available: 15 to 17

Tuition fee: 2200 Euro per one academic year

**CONTACT:** Faculty of Engineering and Environmental Science  
tel.: (+48 22) 593-53-10  
e-mail: [m.gielczewski@levis.sggw.pl](mailto:m.gielczewski@levis.sggw.pl)

**Warsaw University  
of Life Sciences – SGGW**

Nowoursynowska 166  
02-787 Warszawa  
<http://www.sggw.pl>

**Student Affairs Office**

Tel: (+48 22) 593 10 25  
Fax: (+48 22) 593 10 39  
e-mail: [bss@sggw.pl](mailto:bss@sggw.pl)

**International  
Relations Office**

Tel: (+48 22) 593 10 40 (52)  
Fax: (+48 22) 593 10 42(48)  
e-mail: [iro@sggw.pl](mailto:iro@sggw.pl)  
<http://www.iro.sggw.pl>

# Main Research Areas

**GENERAL INFORMATIONS RELATED TO ALL MAJORS / SPECIALIZATIONS / RESEARCH AREAS:** Lack of regular programmes in English for PhD students nor specialization studies at Post-Doc level - ONLY INDIVIDUAL PROGRAMMES; **Tuition fee** - no charge for participant of EM ECW programme; **Prerequisites for admission** - MSc diploma for PhD students, PhD diploma for Post-Doc; **Starting date:** no specific admission period for PhD, Post-Doc and AS, possible to start in each semester of academic year (October - June); **Other information:** contact WULS coordinator during submitting of application for supervisor search: mieczyslaw\_rygalski@sggw.pl, tel: +48 22 59 310 40

## 1. Faculty of Agriculture and Biology

Departments:

Agronomy

Botany

Experimental Design and Bioinformatics

Biochemistry

Microbial Biology

Plant Physiology

Soil Environment Sciences

Research areas:

- Agronomy – improvement of plant productivity in various agricultural systems, including end-use quality and environmental safety
- Biology – biological improvement in plant productivity, including photosynthesis and plant productivity, anatomical and ultrastructural interactions between plants and other organisms of symbiotic and pathogenic nature, biochemical mechanisms of plant resistance to sprouting and water stress
- Ecology and Environmental Protection – biodiversity of natural and agricultural ecosystems, anthropogenic effects on soil properties, soil protection and reclamation

## 2. Faculty of Forestry

Departments:

Forest Botany

Silviculture

Forest Protection and Ecology

Forest Management, Geomatics and Economics

Forest Utilization

Research areas:

- Creation, management, protection and sustainable use of forests
- Associated topics such as timber, wildlife, recreation and aesthetics
- Includes silviculture, botany, physiology (trees), dendrology, outdoor recreation, remote sensing, GIS, inventory etc.

### **3. Faculty of Veterinary Medicine**

Departments:

Morphological Sciences

Physiological Sciences

Preclinical Sciences

Clinical Sciences

Food Hygiene and Public Health  
Protection

Research areas:

- Morphology and embryology of domestic and wild animals (with the special focus on *Bison bonasus*)
- Regulation of animal growth and development
- Mechanisms of cell growth and differentiation (with the special focus on the mechanisms of regulation cell death and proliferation)
- Mechanisms of viral, bacterial, fungal and parasitic diseases in animals (with the special focus on the regulation of immune response)
- Laboratory methods and imaging in diagnostics of non-infectious diseases
- Pathology and morphology of neoplasms
- Epidemiology of infectious diseases
- Development and validation of alternative experimental techniques/models
- The effects of pollution of the environment on animal health
- Biotechnology in animal breeding
- Reproductive disorders and mammary gland diseases
- Biomaterials in animal surgery
- Safety and hygiene of food of animal origin
- Public health protection measures

### **4. Faculty of Horticulture and Landscape Architecture**

Departments:

Landscape Architecture Section of  
Landscape Art.

Laboratory of Natural Resources  
Assessment and Evaluation

Applied Entomology

Plant Pathology

Plant Genetics, Breeding and  
Biotechnology

Research areas:

- Preservation of biodiversity and sustainable plant utilization
- Factors and processes in biological progress
- Improvement of technology, production and protection of horticultural crops
- Biological and cultural factors in landscape architecture

### **5. Faculty of Engineering and Environmental Science**

Departments:

Civil Engineering and Geodesy

Geotechnical Engineering

Hydraulic Engineering and  
Environmental Restoration

Environmental Improvement

Research areas:

- Hydraulic engineering and pollution prevention for balanced environmental development
- Recultivation of degraded areas and recycling of solid and liquid waste
- Hydrogeological and geotechnical investigations and numerical analysis of engineering facilities
- Modeling of non-homogeneous construction materials
- Heat conduction and dynamic problems in periodical composite
- Hydraulic and technological research of water supply and waste water systems
- Modeling of transport processes in porous media
- Soil and water conservation in rural areas
- Use of plants, soils and natural sorbents for biogens removal from waste water
- Water treatment and renovation
- Integrated water resources management
- Hydrological cycle modeling
- Draining and Irrigation Systems
- Water management in peat - moorsh soils for their protection and rehabilitation
- Water flow in the deformable soils

## **6. Faculty of Wood Technology**

Departments:

Physics

Mechanical Wood Processing

Wood Science and Wood Preservation

Technology, Organization and  
Management in Wood Industry

Research areas:

- Determination of physical and chemical wood properties
- Research of tools, machines and control systems used in wood industry
- Investigation of wood based materials machining process
- Visual quality control systems for wood industry - automatization of sawn timber grading
- Optimal measurements of chosen parameters useful for control wood drying process
- Rationalization of wooden construction and wooden materials used for furniture and joinery
- Quality management in wood industry
- CAD systems for furniture and other final wood products development
- Furniture design for disable people and specific groups of users
- Wood impregnation agents influence on strength and durability of gluelines
- Industrial waste materials as a raw materials for ecological processes
- Strength grading of Polish-grown pine sawn structural timber according EU requirements
- Wood cellulose chromatography basics
- Nano-ceramic tools for wooden hard milling materials
- Using waste paper in wood panel production
- Using thermoplastic materials for production of chipboards and plywood

## **7. Faculty of Animal Sciences**

### Departments:

Animal and Environmental Biology

Genetics and Breeding

Animal Nutrition and Feed Science

Animal Breeding and Production

Division of Useful Insects

Division of Ichthyobiology and Fishery

### Research areas:

- Optimization of nutrition of various animal species with emphasis on the effects of additives and new forage plants, including genetically modified plants
- Biology and reproduction of domestic animals, fish and invertebrates
- Improvement of productive traits of domestic animals by methods of molecular and population genetics, and modification of animal products for dietary purposes
- Balanced ecosystem development

## **8. Faculty of Economic Sciences**

### Departments:

Economy and Economic Policy

Economics and Farm Organization

Agricultural Economics and International  
Economic Relationships

Education Economics, Communication  
and Extension

Agrarian Policy and Marketing

### Research areas:

- Informatics systems for agriculture and food industry
- The role of economic units, institutions and local communities in rural development
- Mathematical and statistical methods in agricultural and economic research
- Adaptation of family farms and agricultural corporations to market economy

## **9. Faculty of Food Sciences**

### Departments:

Biotechnology, Microbiology and Food  
Evaluation

Chemistry

Food Engineering and Process  
Management

Food Technology

### Research areas:

- Basic and applied research on food in the field of microbiology and technology

- Influence of the technological processes on the physical properties and the state of water in food
- Process management and exploitation of machinery in the food industry
- Influence of selected factors on the food quality
- Research on the model systems and active compounds in food

## **10. Faculty of Human Nutrition and Consumer Science**

Departments:

Human Nutrition

Dietetics

Functional Foods and Commodities

Engineering and Catering Technology

Organization and Consumption

Economics

Accredited Laboratory of Food

Evaluation and Health Diagnostics

Research areas:

- Environmental and socio-economic factors in food intake and nutritional status of different population groups
- New techniques and technologies for improving quality and safety of food processing and catering
- Diet prophylactic and diet therapy of chronic diseases and metabolic disorders
- Quality assessment and new food products design of the special nutritional use (functional foods), convenience foods and organic foods
- Analysis of food chain in Poland including marketing research, consumer behavior and consumer protection. Analysis of food consumption structure of different types of households

## **11. Faculty of Production Engineering**

Departments:

Agricultural and Forest Machinery

Production Management and  
Engineering

Fundamental Engineering

Research areas:

- Improvement of crop production techniques in precision agriculture
- Organization of production in agriculture in the efficiency and quality improvement
- Drying and storage of cereals, vegetables, fruit and herbs
- The theory and technology in drying of agricultural products
- Technological, ecological and economic aspects of energy utilization and recycling
- Technology in forestry, including technical infrastructure promoting ecological model of forest management
- Production processes organization and management in agriculture and food engineering and economic analyses of various sectors and enterprises

## **12. Faculty of Humanities**

Departments:

Sociology

Education and Culture

Research areas:

- Using agricultural knowledge and progress system specially agricultural consultancy in Poland and in chosen lands
- Cultural heritage of region as tourism development factor
- Language and philosophy
- School selection and its social considerations
- Social considerations of demographic decrease in Poland. Theoretical analysis and empirical studies
- Phenomenon of social exclusion in country environment, its considerations and counteracting it

### **13. Faculty of Applied Informatics and Mathematics**

Departments:

Economics and Statistics

Informatics

Applied Mathematics

Biometrics

Research areas:

- Application of statistics, econometrics and informatics to financial systems
- Application of multidimensional data analysis and artificial intelligence methods to economics especially food industry and finance
- Analysis and construction of the system supporting the information management in economy, especially in agriculture and life sciences
- Protection of information in computer networks