

Russian State Agrarian University – Moscow Timiryazev Agricultural Academy (1865 – 2015)



150 years for education and science development

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VIA VICA

Dear Readers,

Russian State Agrarian University (RSAU-MTAA), formerly Moscow Timiryazev Agricultural Academy (MTAA), is the oldest and the most well-known agrarian university in Russia. In 2015, it celebrated its 150th anniversary. Since establishment, the University has been the cradle of progressive scientific thoughts and ideas. University researchers are recognized all over the world for their valuable contribution to both fundamental and applied sciences as well as for their profound practical experience which they generously share with students.

The educational process at the University seeks to acquaint the students with research methods in agriculture and sustainable rural development. The curriculum is aimed at developing intellectual capacities of the students through general knowledge transfer, critical thinking development and problem solving. Graduates of the University have proven the excellence of their education through their activities: serving as experts at large ag-



ricultural enterprises, in food and agricultural processing industries, agrarian universities and research institutions.

RSAU-MTAA is steadfastly committed to providing education and training to international students and welcomes them from all over the world. Admission to RSAU-MTAA is a big step for everyone looking to gain the knowledge and skills required for a successful career. We believe that here, at RSAU-MTAA in Moscow, we have excellent conditions for learning, teaching, research and social activities. We will do our best to ensure that your stay with us will be both academically rewarding and socially enjoyable.

RSAU-MTAA is famous both nationally and internationally. The range of the academic programs is constantly being enlarged and currently includes about 40 bachelor degree programs, 27 master degree programs including three in English (Economics, Biotechnology and Ecology) and 53 doctoral (PhD) programs. These programs at bachelor, master and doctoral level are offered by 18 faculties. The majority of the bachelor degree programs continue at master degree study and the best of them - at the doctoral level.

Currently over 16000 students, nearly 800 of them international, are studying in RSAU-MTAA. The University recognizes the European Credit Transfer System (ECTS), which provides efficient staff and student academic mobility. The name Green University has become a part of the identity of our university.

The University employs nearly 1.100 teaching staff members, including 240 full professors and nearly 700 associated professors, 13 members of Russian Academy of Science. The university is a member of a number of prestigious international organizations, e.g. International Association of Universities, Association for European Life Science Universities, Global Consortium of Higher Education and Research for Agriculture, Visegrad University Association, Council of Rectors of CIS key agricultural universities, etc.

Taking into account that RSAU-MTAA students come from all regions of the Russian Federation, as well as increasingly from abroad, it is vital that the University is able to provide the students with accommodation at the dormitory in the buildings situated in the eco-friendly environment. We look forward to welcoming you in Moscow in our University.

> Professor Viacheslav Lukomets, Member of Russian Academy of Sciences

Rector of RSAU-MTAA

Russian State Agrarian University -





History

The Russian State Agrarian University – MTAA is the oldest agricultural institution of higher education in Russia. University campus with the total area of over 500 hectares is located in the north of Moscow – about 15 km from the city centre. It was



founded on December 3, 1865 by the Governmental decree to establish the Petrovskaya Academy of Agriculture and Forestry.

The year 1917 marked the beginning of a new era in the history of the Academy. That year, the former name, Petrovskaya Agricultural Academy, was restored, the Charter and the structure of the academy were revised and updated with new curricula and study programs developed. In 1941-1943, the Academy was temporarily moved to the city of Samarkand, Uzbekistan due to the war. During those difficult years, 1500 agronomists, economists, specialists in animal husbandry and other fields of agriculture graduated from the Academy. Ten new crop varieties were developed during that period.

In the post-war time, scientists of the Academy took an active part in the campaign to develop virgin and long-fallow lands. Over nine million hectares of land were inspected, and 232 soil maps and cartograms were drawn up and passed to agricultural agencies.

The research work of the Academy was greatly appreciated. In 1979, the Academy was awarded with the Medal "In commemoration of the 25th anniversary of the development of virgin and long-fallow lands". The Medal "For the development of virgin lands" was handed out to eleven stu-



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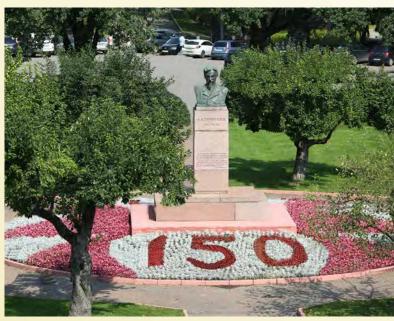


dents of the Timiryazev Academy. The first Prize named after the member of National Academy of Science V.R. Williams was conferred on fifteen scientists for their research work on the virgin lands.

On December 3, 1965, on the occasion of its 100th anniversary, the Academy was awarded with the Order of the Red Banner of Labor for its fruitful work in the field of training highly qualified specialists and advances in agricultural science.

Per Order 454 of the Federal agency of agriculture and higher professional education, on June 20, 2005 Moscow Agricultural Academy named after K.A.Timiryazev was renamed as the Federal State Budgetary Educational Establishment "Russian State Agrarian University – Moscow Timiryazev Agricultural Academy" (RSAU-MTAA). In 2014, two neighboring Universities – Agroengineering University and Environmental Engineering University (former faculties of MTAA) merged into RSAU-MTAA.







Russian State Agrarian University -





Education

Academic system

14 full-time faculties of the University offer courses in the broad field of agrarian science and agribusiness

University implements three-level system of education:

- Bachelor's Degree course (BSc) 4 years
- Master's Degree course (MSc) 2 years
- Postgraduate course (PhD) 3 or 4 years

The Bachelor's program consists of several modules and numerous subjects and comprises 240 ECTS credits; the Master's program comprises 120 ECTS.

Credits are measured in terms of study hours: one credit is equivalent to a study load of 36 hours. ECTS credits are numerical values allocated to course units to describe the students' workload required to complete through lectures, practical





classes, seminars, workshops, individual studies and examinations.

The qualification of future experts is based on courses in the humanities, social sciences, economics and mathematics, as well as natural science-related compulsory and optional courses. The curricula of the first and the second year of study include fundamental core courses that are obligatory for all specializations. The third and the fourth year's curricula include selective courses. After the third year of theoretical studies, the students participate in research which is an essential part of their diploma theses.

14 full-time Faculties of the University offer courses in the field of agriculture. Besides that, the University offers training courses at the Advanced Training Faculty, Master of Business Administration (MBA) School, Faculty of Pre-University Education, Part-Time Training Faculty, Faculty of Distance Learning, Preparatory Department for International Students and Linguistic Education Center.



Faculties of the University

Advanced Training Faculty

The Faculty offers courses for training, re-training and advanced training of specialists and managers of agro-industrial complexes. There are 35 academic programs in the following fields:

- Technologies in agriculture

- Agricultural ecology and agricultural soil science

 Processing, quality and safety of agricultural goods

- Sustainable development of rural areas

The programs are designed for different target groups: specialists, university lecturers, decision-makers in agriculture and other fields, etc.

Master of Business Administration (MBA) School with a specialization in Agribusiness

This school combines industry-related specialization with the best business education in Russia, focusing on the development and improvement of managerial skills.

Faculty of Pre-University Education

Faculty of pre-university education runs the following programs: involvement and motivation of high school graduates, vocational guidance, preparation for the entrance examinations, and participation in Olympiads on the basis of which the students can be admitted to the first course of training.

The faculty provides:

• Full-time preparatory courses lasting eight months or two years;

Four-months preparatory courses;

• Profiled schools, colleges, and technical schools;

• Team on vocational guidance, advertising and canvassing.

At the preparatory courses students are trained for taking the Unified State Examination and for participating in Olympiads. Students learn the following subjects: biology, mathematics, chemistry, social science, Russian language.

Classes are taught by professors, lectors, researchers of the University and by renowned lectors from other educational institutions.

The objective of the preparatory courses is to provide a flexible system of training for different categories of students.

Unique educational techniques, used at the courses, provide high-quality education and ensure systematization of the school knowledge.











Part-Time Training Faculty

The main objective of the Faculty is to prepare highly qualified specialists by training students and working young people using a convenient timetable fitting in their schedule.

Currently, the Faculty trains professionals in traditional agricultural specialties, such as agronomists, livestock technicians, horticulturists, landscape architects, economists, accountants, food merchandisers, etc., as well as experts in the field of construction engineering, environment conservation, and disaster relief in the emergency situations, car service, power supply and power service.

High school and college (specialized secondary education institutions) graduates are admitted to study at the Faculty.

Graduates from profiled colleges and technical schools are accepted to the accelerated course of training (duration - 3.6 years)

For high school leavers and specialized colleges graduates, the duration of training is 4.6 years. The Faculty cooperates with 40 different colleges.

Faculty of Distance Learning

Distance learning is convenient for those who have a permanent job or the ones whose life circumstances prevent them from attending classes in person regularly.

BSc and MSc curricula meet the educational standard and differ from full-time curricula by the number of academic hours provided for in-class training and self-study. Distance learning is based on active unsupervised self-studies of the students.

The distance study process includes:

• Preparation of test works and designing tasks for each course (test papers, term papers and projects),

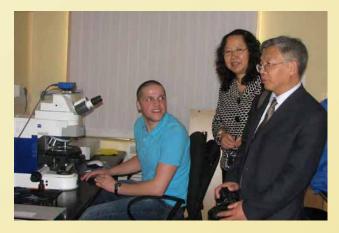
- Consultations on key lectures,
- Independent completion of assigned tasks,

• On-site university laboratory practice and exams. For the period of sessions and the implementation of final graduation works students are granted an additional study leave by their employers on the basis of an official call issued by the Dean. Non-resident students are provided with the dormitory accommodation (only for session periods).

• A full course of study is completed with the State examination and presentation of the final qualification work.

The Faculty of Distance Learning includes three Departments:

Department of Agriculture



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 Department of Mechanical and Power Engineering

Department of Environmental Engineering

Preparatory Department for International Students

International students have been studying at RSAU-MTAA since 1869. More than 7000 international students from 110 countries have been trained at the University. International graduates have made considerable progress in their professional careers around the world.

The program of preliminary courses for international students is based on the following subjects: Russian language, Physics, Chemistry, Mathematics and Biology.

The study load is 30 hours per week. The academic program for preliminary courses begins on the 1st of September. The course lasts for one year. Students receive a certificate if exams are successfully passed. The certificate allows them to



apply for any Russian university.

On completion of the preliminary courses international students can be registered for the BSc or the MSc courses at any Faculty of our University.

Linguistic Education Center

Linguistic Education Center was opened at the University in 2002. The Center provides advanced linguistic training for the University students. Those who want to become professional interpreters (English, German or French) may take an intensive 3-year course and get a qualification of "translator/interpreter in the sphere of professional communication".

About 800 graduates of the Linguistic Center have successfully completed the course. Their linguistic and intercultural skills increase the chances of obtaining a better job. Creation of a real verbal environment promotes the efficiency of language training process. Students attend lectures of foreign experts, take active part in international conferences and workshops, work as booth assistants at international agricultural fairs, provide language support at international conferences and seminars held at the University, accompany foreign delegations and translate scientific literature. At the end of the course, students take the Final Qualification Examination. Upon completion of studies they receive Diplomas of Translators.

Russian State Agrarian University -





Faculty of Agronomy and Biotechnology

Address: Timiryazevskaya street 49, Bld. 3, 127550 Moscow Russia Tel./Fax: + 7 499 976 39 81; + 7 499 976 18 25 E-mail: agrofak@timacad.ru

Departments:

Genetics, Biotechnology, Plant Breeding and Seed Science Meteorology and Climatology Plant Physiology Plant Production and Meadow Cultivation Plant Protection Soil Management and Experimental Design

BSc programs and profiles:

Agronomy

Agribusiness





- Crop breeding and genetics
- Grassland landscapes and lawns
- Plant protection
- Plant protection and phytosanitary control

Biotechnology

Biotechnology

Hydrometeorology

Meteorology

MSc programs:

Adaptive land development systems

Biotechnology (Genetics, Biotechnology and

Plant Breeding)

- Bio-based economy
- Integrated plant protection
- Crop production risks
- Crop production technology
- Technologies and machines for precision farm-

ing

Agribusiness management in crop production Phytotechnologies and bioproductive systems

2015





genetics and cytological engineering, biochemical mechanisms of plant stress resistance, molecular biotechnology, plant biochemistry;

• Developing methods of forage conservation and storage;

• Developing technologies for creation and management of turf grasses;

• Environmental-friendly and biological farming;

• Physiology of pests and diseases in plant protection; ecological and genetic structure and dynamics in pest populations and development of an integrated plant protection system;

• Precision farming;

• Productivity of forage lands.

PhD programs:

Agrarian physics

Biotechnology (including bionanotechnologies) Genetics

Plant protection

Climatology, meteorology and agrometeorology Meadow cultivation and medicinal essential oil-yielding plants

Plant breeding and seed science Technologies and agricultural machines Plant physiology and biochemistry

Main research fields:

Crop productivity in various agricultural systems;

Cytogenetic research of field crops -



Russian State Agrarian University -





Faculty of Animal Science and Biology

Address: Timiryazevskaya street 49, Bld. 5, 127550 Moscow Russia

Tel.: + 7 499 976 02 36, + 7 499 976 14 47 E-mail: zoo@timacad.ru

Departments:

Animal Physiology, Ethology and Biochemistry Aquaculture and Bee-Keeping Automation and Mechanization in Animal Husbandry Beef and Dairy Cattle Breeding Feeding and Breeding of Farm Animals Horse Breeding Morphology and Veterinary Sciences

- Special Animal Husbandry
- Zoology



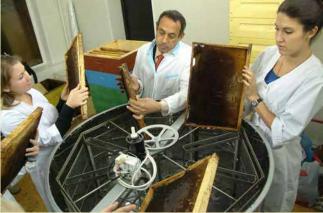
BSc programs:

Animal science Biology Veterinarian and sanitary expertise

MSc programs:

Intensive technologies of animal production Breeding and technological methods of animal products quality control

Horse breeding and equestrian sports



Physiological and biochemical monitoring of animal health and nutrition

Biological resources (bee-keeping and aquaculture)

Feed production and animal nutrition technologies

Engineering in animal husbandry

Stock breeding and certification of pedigree stock

Resources of vertebrate animals (protection, reproduction and sustainable use)

2015





PhD programs:

Biological sciences Special branches of animal science

Main research fields:

• Biology and reproduction of animals and fish;

• Evaluation of animal products quality;

• Improvement of productive characters of animals;

• Optimization of animal nutrition rations with an emphasis on additives and new forage plants;

• Surgery, medical treatment and preventive measures in animal husbandry.



Russian State Agrarian University -





Faculty of Economics and Finance

Address: Timiryazevskaya street 49, Bld. 2, 127550 Moscow Russia Tel.: + 7 499 976 46 97 E-mail: uff07@timacad.ru

Departments:

Accounting Applied Informatics Business Process Engineering Computer Engineering and Applied Mathematics Economic Analysis and Auditing Finances Higher Mathematics Statistics and Econometry

Taxation and Financial Law





BSc programs:

Economics Management Applied information science Business information science Information systems and technologies

MSc programs:

Economics Finances and credit Management Applied information science Business information science Information systems and technologies

PhD programs:

Information science and Computer engineering Economics

Main research fields:

 Information, accounting and financial support for the sustainable development of the agro-industrial complex;

• Mathematical models of soil deformation with time: theory and calculation methods.

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Faculty of Economics

Address: Timiryazevskaya street 49, Bld. 27, 127550 Moscow Russia Tel.: + 7 499 976 36 40; + 7 499 977 11 88 E-mail: edekanat@timacad.ru

Departments:

Economic Cybernetics Economics Management Marketing Political Economy Production Organization World Economy

BSc programs: Economics Management MSc programs: Economics Management

PhD programs: Economics

Main research fields:

• Production optimization in agro-industrial complex;

• Russian agrarian market development and its governmental support;

• Scientific support of innovative development of agriculture in Russia.





МЕЖДУНАРОДНЫЙ МУЛЬТИМЕДИЙНЫЙ ПРЕСС-ЦЕНТР



Faculty of Education and Humanities

Address: Timiryazevskaya street 49, Bld. 12, 127550 Moscow Russia Tel.: +7 (499) 976 1370, +7 (499) 976 2598 E-mail: pedfak@rgau-msha.ru

Departments:

Foreign Languages History and Agrarian Tourism Law Pedagogics and Psychology Pedagogics and Psychology of Professional Education. Philosophy

Philosophy Physical Education Politology Public Relations Russian Language and Culture of Speech State and Municipal Management

BSc programs and profiles:

Government and municipal management Professional education

- Economics and management
- Advertising and public relations
- Advertising and public relations in agro-in-

dustrial complex

- Agrarian journalism
- Tourism
- Agrarian tourism

MSc programs:

Pedagogical innovations management Governmental services Information technologies in engineering education

PhD programs:

Psychological sciences Legal sciences Educational and pedagogical sciences Historical sciences and archeology Philosophy, ethics and religion studies

Main research fields:

Topical issues of the modern philosophy;

• Topical issues of the social sciences and humanities;

• Development and application of innovative techniques on rehabilitation and health improvement for different segments of population by means of physical culture and sports;

• Development of methodological and practical proposals for resource management and infrastructure development in rural areas;

• Russian philology in mass communications in the context of globalization and informatization;

• Theoretical and applied aspects of agrarian tourism development in Russia.

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Faculty of Food Technology

Address: Timiryazevskaya street 49, Bld. 1, 127550 Moscow Russia

Tel.: + 7 499 977 10 33, + 7 499 977 11 83 E-mail: techfak@timacad.ru

Departments:

Commodity Quality Management and Merchandizing

Processes and Devices of Food Processing Industry

Storage and Processing Technologies of Animal Origin Produce

Storage and Processing Technologies of Fruits and Vegetables

Storage, Processing Technologies and Merchandizing of Plant Origin Produce

BSc programs:

Agricultural production and processing technologies

Plant products Animal products Commodity merchandizing Quality management MSc programs: Animal products Plant products Commodity merchandizing

PhD programs:

Industrial ecology and biotechnology

Main research fields:

• Chemical composition, merchandizing and primary storage characteristics of fruits and vege-tables;

Food microbiology and technology;

 Methods of fruit and vegetable preservation;

 Processing management and use of machinery in the food industry.





Faculty of Horticulture and Landscape Architecture

Address: Timiryazevskaya street 49, Bld. 17, 127550 Moscow Russia Tel.: + 7 499 976 49 06; + 7 499 976 00 18

E-mail: plod@timacad.ru

Departments:

Botany, Breeding and Seed Production of Horticultural Crops

Pomology, Viticulture and Wine-making Landscape Artchitecture Ornamental crops and Greenkeeping Vegetable and Medicinal Plants

BSc programs and profiles:

Horticulture:

- Fruit growing
- Vegetable growing



- Viticulture and wine-making
- Ornamental gardening and floristics

• Production and processing of medical and essential oil-yielding raw materials



Landscape architecture:

- Landscape construction
- Landscape design
- Ornamental gardening and greenkeeping

MSc programs and profiles: Horticulture:

Landscape gardening and phytodesign

 Production technologies in pomology and viticulture

• Production technologies in vegetable and medicinal plant growing

• Breeding and seed production of horticultural crops

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Landscape engineering:

• Garden and landscape construction

 General and sport lawn science/greenkeeping

PhD programs:

Biological sciences Agriculture

Main research fields:

• Biological and cultural factors in landscape architecture.

• Improvement of technology, production and protection of horticultural crops;

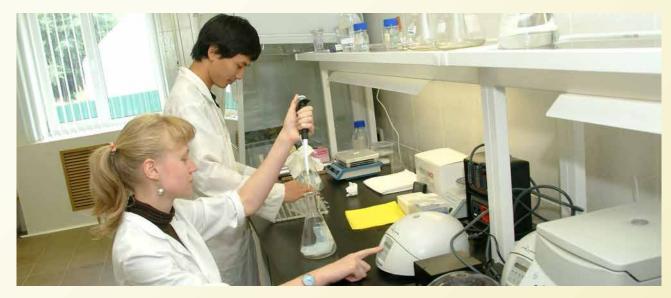
• Modern tools for genetic research and molecular techniques in plant breeding;

• Quality of horticultural commodities in market chains.



Russian State Agrarian University -





Faculty of Soil Science, Agricultural Chemistry and Ecology

Address: Timiryazevskaya street 49, Bld. 6, 127550 Moscow Russia Tel.: + 7 499 976 14 57, + 7 499 976 12 80

E-mail: soildisp@timacad.ru

Departments:

Agricultural and Biological Chemistry, Radiology and Emergency Management Chemistry

Ecology

Engineering Chemistry

Melioration, Land Development and Forestry

- Microbiology and Immunology
- Soil Science, Geology and Landscape Science



BSc programs and profiles:

Agrarian chemistry and soil science

 Soil science and agro-ecological land assessment

- Plant nutrition and yield quality
- Agricultural radiology
- Agroecology
- Agricultural microbiology
- Forestry
- Forestry

Ecology and environmental management

Ecology

MSc programs and profiles:

Ecology and environmental management

- Ecological monitoring and design
- Agrarian chemistry and soil science

Agroecological land assessment and agrarian landscape design

- Agrochemical methods of crop yield increase and quality improvement
- Chemical and toxicological analysis and assessment of agrarian objects
 - Ecological management and engineering Forestry
 - Forestry and forest resource management

PhD programs:

Chemical Sciences Biological Sciences Agriculture Forestry

2015





Main research fields:

• Agroecological requirements of melioration and land recultivation in steppe zone, dry steppe zone and semidesert zone;

• Development of innovative technologies for bio-energy production from plant raw materials and animal wastes;

• Improvement of methodology of agrarian landscape planning and design, development of rural areas and ecosystems;

• Improvement of monitoring and design of sustainable environment and land-use management for efficient production of ecological produce;

Increasing agroecological efficiency of



precision farming technologies;

 New resource-saving technologies to increase soil fertility;

• Safety and quality of agricultural raw materials and food products.

Russian State Agrarian University -





Faculty of Environmental Engineering and Water Management

Address: Bolshaya Academicheskaya street, 44 127550 Moscow Russia Phone: +7499 9760710 e-mail: fpw@rgau-msha.ru

Departments:

Hydrology, Hydrogeology and Streamflow Control Integrated Water Resources Management and Hydraulics

Land Reclamation and Rehabilitation

Organization of Construction in the Projects of the Environmental Engineering

Water Supply and Sanitation Equipment in the Rural Areas

BSc programs and profiles:

Environmental engineering and water management

• Engineering systems of water supply and sanitation in the rural areas

 Information technologies for environmental engineering and water management

Integrated water resources management



and water protection

Environmental engineering for territories

 Reclamation, rehabilitation and land protection

- Land management and land inventory
- Land assessment
- Land and Soil recourses management

MSc programs:

Water management projects and environmental engineering for the territories

Land management and land inventory

PhD programs:

Hydraulics and engineering hydrology Land Reclamation, rehabilitation and land protection

Main research fields:

• Application of 3D modeling for hydraulic research; the impact of diffuse pollution coming from the agricultural areas to the water bodies;

• Construction methods in the environmental engineering and water management;

Hydrophysics of water bodies;

• Multi-purpose water management and protection of water bodies;

Natural and waste water treatment;

• Prognosis for climate changes and their influence on the agriculture;

- Sanitary control zones of water supply points;
- Transboundary water bodies;
- Water intake structures and water protection zones of water bodies.

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Faculty of Hydraulic Engineering, Agro-Industrial and Civil Construction

Address: Bolshaya Academicheskaya Street, 44, 127550 Moscow Russia Phone: + 7 499 976 06 92 e-mail: gags@rgau-msha.ru

Departments:

Engineering Design

Foundations of Buildings and Structures, Construction and Expertise of Real Estate

Hydraulic Structures Information Technologies in the Construction

Rural Engineering and Architecture

BSc programs:

 Environmental engineering and water management

 Hydraulic structures for environment protection

Construction

- Industrial and civil construction
- Real estate inspection and management
- Hydraulic engineering

Special study program: Construction of unique buildings and structures

MSc programs:

River and underground hydraulic structures Theory and design of buildings and structures

PhD programs:

Construction technologies and techniques Hydraulic engineering Hydraulics and engineering hydrology

Main research fields:

• Application of the cellular structures in hydraulic engineering;

• Developing, improving and testing of metal, concrete and wooden structures for rural, environmental and water management purposes;

- Expertise and management of the real estate;
- Facing of channels in hot dry climate;
- Geometric and dynamic parameters of the flow downstream the dam;

• Monitoring the state of hydraulic engineering constructions;

Operation and maintenance of hydraulic structures;

Reinforced soil in hydraulic engineering;

• Reliability, safety and durability of buildings and structures;

• Strength, seismic stability and reliability of hydraulic structures;

• Water intake facility for rivers in case of excessive sediments.





Faculty of Technosphere Safety, Ecology and Natural Resources Management

Address: Bolshaya Academicheskaya street, 44 127550 Moscow Russia Phone: + 7 499 976 22 85; + 7 499 976 45 01 e-mail: tbep@rgau-msha.ru

Departments:

General and Engineering Ecology

Machinery and Equipment of Environmental Engineering for Protection in Emergencies

Occupational Safety

Physics

Technical Maintenance of Technological Machines and Equipment for the Environmental Engineering

BSc programs:

Technosphere safety

Ecology and natural resources management

Ground-based transport and technological equipment

Operation of transport-technological machinery and systems

Technological machinery and equipment Quality management

MSc programes:

Ecology and natural resources management Technical and technological equipment for the environmental spatial planning

Main research fields:

• Chemical composition of surface runoff in Moscow city, engineering and organizational measures;

• Disaster relief measures;

• Machines and mechanisms for environmental engineering and water management;

 Mathematical models and programming of runoff based on digital maps and geoinformation;

• Research of working processes of the machines for environmental engineering to improve their performance;

• Studies of working bodies of environmental engineering machines to improve their parameters and to reduce operational energy costs;

• Terrestrial communities in protected urban areas;

• The study of hydrobiological modes of small rivers, reservoirs and coastal areas in Moscow.



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Faculty of Power Engineering

Address: Listvennichnaya alley, Bld. 23 127550 Moscow Russia Phone: +74999761053; +7(499)9761052 E-mail: energo-fak@mail.ru

Departments:

Automation and Robotization of Technological Processes

Electric Drive and Electrical Technologies Heat Engineering, Hydraulics and Energy Supply of Enterprises

Power Supply and Electrical Engineering

BSc programs and profiles:

Agrarian engineering;

Electric equipment and electric technologies with extensive training in: electric technological processes and installations;

- Power supply of agrarian enterprises;
- Information management systems;
- Robotic systems;

Thermal energy production and heat power engineering:

Power supply; •

Power industry and electrical engineering:

- Electric drive and automation;
- Power supply.

Electric equipment and electrical technologies

Thermal energy production and heat power engineering:

- Power supply of enterprises
- Power industry and electrical engineering:
- Electric drive and automation
- Power supply

PhD programs:

Informatics and computer engineering (automation and control of technological processes and production branches)

Technology, mechanization and power equipment in agriculture, forestry and fishery.

Main research fields:

Developing energy-saving electric systems for the production, processing and storage of farm produce;

Developing information-control and robotic systems;

Enhancing energy efficiency of horticultural operations, technologies, machinery and equipment;

Optimizing power supply systems, software and hardware facilities by testing their reliability;

Studying and introducing alternative and renewable energy sources and bio-energy systems;

Studying the effects of electromagnetic fields on biological objects.

Russian State Agrarian University -





Faculty of Processes and Machinery in Agribusiness

Address: Listvennichnaya alley, Bld. 23 127550 Moscow Russia Phone: +7 (499) 977 24 00 E-mail: prima@rgau-msha.ru

Departments:

Farm Machinery Mechanized Technologies in Crop Production Operation of Vehicle and Tractor Stock Road Transport Tractors and Automobiles

BSc and MSc programs and profiles:

Agroengineering:

Technical systems in agribusiness

• Processes and machines for processing industries



• Operation of transport-and-technological machines and systems:

Automobiles and automobile operation

Quality management:

Quality management in production and processing systems

Technology of transport processes:

 Road transport organization and management

Main research fields:

• Developing production technology of a high-silicone agent for full purification of aqueous solutions in the food industry;

 Developing measures to enhance electrical safety;

 Efficient use of resources in production and technical operation of transport and transport-technological machines;

• Metrological support for technical service enterprises in agribusiness;

• Power and resource saving in crop production;

• Quality management in agrarian enterprises;

• Technical and technological modernization, innovative development, resource-saving technologies of operating farm machines and tractors.

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Faculty of Technical Service of Farm Machinery

Address: Listvennichnaya alley, Bld. 23, 127550 Moscow Russia

Tel. : +7 (499) 976 46 18; +7 (499) 976 46 78 E-mail: ykataev@mail.ru

Departments:

Engineering and Computer-Aided Graphic Design Metrology, Standardization and Quality Management

Science and Technology of Mechanical Engineering

Strength of Materials and Machine Parts Technical Service of Machinery and Equipment

BSc program and profiles:

Agroengineering:

Technical service of farm machinery

• Organization and technology of technical service; logistics of technical service in agribusiness; maintenance of automotive engineering

MSc programs and profiles:

Agroengineering:

- Technical service in agriculture
- Management in agroengineering

Main research fields:

• Developing a comprehensive quality control system for spare parts;

• Developing and introducing resource and energy saving technological processes of restoring

parts, repairing machines, as well as methods of organizing technical service for farming machines;

 Developing effective nanotechnology means of corrosion and wear protection using renewable domestic raw materials;

• Developing new methods of restoring, hardening and processing of machine, tractor, as well as processing machinery and equipment parts;

• Developing tools and methods to increase durability of repaired machinery parts;

• Enhancing reliability of farming machines at the stages of designing and repair;

 Establishing an engineering support system for Russian agribusiness;

Improving farm machinery performance;

 Improving storage processes and corrosion protection technologies;

 Improving technical service of farm machinery and equipment;

 Increasing the reliability of upgraded machinery;

• Studying and developing technologies and means for improving machine parts and equipment.



Russian State Agrarian University -





Inter-University Centers

Scientific laboratories and centers within the departments:

- Equestrian Sports Complex
- Center for Molecular Biotechnology
- Field Experimental Station:
- Breeding Station named after P.I. Lisitsyn
- Precision Farming Center

- Meteorological Observatory named after V.A. Mikhelson

- Plant Protection Laboratory
- Laboratory of Honey Analysis and Certification
- Livestock Breeding Station:
- Aviary Training and Production Facilities

 Livestock Breeding and Production Facilities

- Forest Research Station "Dacha"

- Research center "Agroecology of Pesticides and Agrochemicals"

- Research center "Laboratory of Complex Analysis of Chemical Compounds"

- Laboratory of Agroecological Monitoring, Ecosystem Modeling and Forecasting

- Laboratory of White Lupine Research

- Research center "Vegetable Experimental Station named after V.I. Edelstein"

- Horticulture Laboratory

- Laboratory of Vegetable Genetics, Breeding and Biotechnology

- Laboratory for Milk Quality Testing

- Testing Center for Soil and Environmental Studies

- Farm Machinery Research and Design Laboratory

- Department of New Technologies
- Center of Hydro- and Geological Information

- Laboratory of Physiology and Pathology of Small Animals

- Laboratory of Agricultural Economics

- Central Scientific Library named after N.I. Zheleznov

- Centre for Sustainable Rural Development

Library

The University Library, being the first agricultural library in Russia, was founded in 1865. There are about 2.5 million volumes in the library. The library offers online access to books, journals, national and international scientific databases as well as important reference books and dictionaries. About 650 000 people visit the library every year.



2015





Campus facilities

- Festival "Timiryazevka is a Sport City" for the



first-year students in 8 kinds of sports. - Festival "World of Equal Opportunities" for

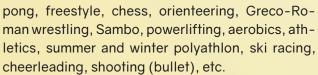
students with special needs in 4 kinds of sports.

- "Health" Festival of faculty members and staff in 8 kinds of sports.

More than 3000 students, faculty members and staff of the University take part in university sporting events every year. The main purpose of the sports festivals is to promote individual sports and healthy lifestyle. The competitions aim at increasing the quality of training, boosting social activity of

> students, and developing their soft skills.

The University takes special pride in its students - participants of the Olympic Games, the winners of the World Championships and the World Universiade.



OP

Sports and fitness groups involve over 1200 students. The Physical Training Department is responsible for involving students in active sporting events such as:

- University Sports Festival Games in 24 kinds of sports.





Sport activities

University students get a good opportunity for physical training and practice many kinds of sports: basketball, swimming, volleyball, darts, boxing, diving, water polo, football and futsal, tennis and ping-

Russian State Agrarian University -







Museums

Numerous museums located on campus contribute to the vibrant atmosphere of the University's cultural and educational environment.

Museum of the University's History

The Museum of the University's History is a living chronicle depicting the creation and development of the oldest agricultural educational institution in Russia. It is located inside a grand mansion in the campus' historical park. Five halls of museum display a documentary collection of items related to the most important periods in the history of Timiryazev Academy and the development of agricultural science. Here, numerous visitors, including students, schoolchildren, and local residents can look through the pages of history of the Academy, Moscow and Russia.

Memorial flat of K.A. Timiryazev

In 1920, The Resolution of the All-Union Central Executive Committee was issued in order "... to preserve and protect K.A. Timiryazev's study, library and manuscripts". According to this Resolution, the scientist's memorial study room was organized on May 26, 1942. Then, on April 25, 1946 it was passed to the Moscow Agricultural Academy as the Memorial Flat of K.A. Timiryazev. Since 1960, the museum has been in the custody of the Russian government, it is included in the international reference book "The World Establishments of Culture" edited in London.

Museum of Minerals and Geology

The Museum of Minerals and Geology was founded in 1867. By the beginning of the 20th century, the collection of minerals and rocks totaled over 4000 units. In 1905, Professor E.S. Fedorov enriched the collection by adding numerous minerals and rocks collected by him in the Middle Urals, the Caucasus, Murmansk coast of the White Sea; also rock samples from Finland, Kazakhstan, and Transbaikalia were added. At present, the museum collection stock consists of about 12000 samples. There is also a unique collection of fossils and meteorites.

V.R. Williams Soil-Agronomic Museum

This museum was founded in 1934 by the special Decree of the Soviet Government in commemoration of the 50-year anniversary of scientific and pedagogic activity of V.R. Williams. During the period 1888-1939, V.R. Williams and his students collected thousands of different soil columns, samples of soil horizons, rocks, and herbs. These items are now displayed in accordance with the soil-geographical demarcation. Peculiar samples of soils from some regions of Russia, CIS countries and foreign countries are also on display. Presently, the world largest soil collection of more than 2.500 samples is housed in the museum.

2015



Bee-Keeping Museum and Training and Research Apiary

The Bee-Keeping Museum and Training and Research Apiary were founded in 1868. In the museum and at the apiary students can learn more about bee life and behavior and develop bee-keeping skills. The personnel of the museum and the apiary are involved in consultative work with amateur bee-keepers from Moscow region.

The N.I. Kulagin Museum of Zoology and E.F. Liskun Animal Science Museum

These museums display the diversity and richness of the animal kingdom. Their exhibitions are devoted to the history of the development of animal science, the origin of livestock, and the evolutionary process of cattle breeding.



Horse Breeding Museum

The University takes great pride in its Horse Breeding Museum. The art collection devoted to horses is the largest in the world, numbering 3000 items which have both educational and esthetic value. Wonderful art of N.E. Sverchkov, the Russian patriarch of animal-themed art, as well as paintings by V.A. Serov, M.A. Vrubel, A.O. Orlovsky, M.B. Grekov, A.A. Plastov, and many others are displayed here.

Museum named after A.N. Kostyakov

The museum named after A.N. Kostyakov with over 2,000 exhibits was founded in 1987. The ex-



hibits of the Museum are devoted to the development of land reclamation and hydraulic engineering in Russia and in the former Soviet Union.

Museum of the Department of Animal Anatomy, Histology and Embryology

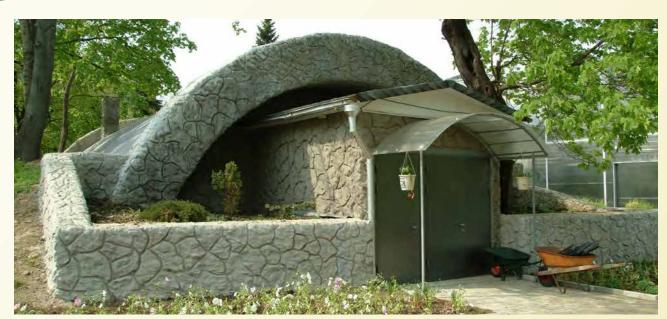
The Museum of the Department of Animal Anatomy, Histology and Embryology was founded in 1934. Items are arranged according to collections belonging to famous scientists: the collection of V.Y. Brovar features a locomotor system in its comparative and age-related aspects, the collection of B.K.Gindse displays the mammal and human brain vessels, and a collection of V.I. Ippolitova shows a nervous system of domestic mammals, etc.

Museum of Agricultural Engineering and Machinery named after V.P. Goryachkin

In October 1980, a memorial museum was opened to memorialize and keep the scientific heritage of Vasily Goryachkin (1868-1935), the outstanding Russian and world-famous scientist in the field of agricultural mechanics, the honorary member of the USSR Academy of Sciences. His basic research laid the foundation for the theory of farm machinery designing.

The uniqueness of the museum is that its exhibits are genuine and they have been handed over by V.P. Goryachkin's descendants. The museum contains instruments, models of agricultural machines designed by Goryachkin and his students (about 30 pieces).





Gardens, Parks and Forest Research Station ("Dacha")

1865

More than half of the total area of the University (370 hectares) is actively used for planting, including the Forest Research Station, the Historical Park, the Dendrological Garden (Arboretum), the Michurin Orchard, numerous squares and flowerbeds. The forestland of the University is of great historical and scientific value, and the Forest Research Station, or "Dacha", is a cradle of Russian forestry - a unique forest oasis, the 'green lungs' of Moscow city. The forest plantations include major Russian tree species as well as 50 foreign ones. In Europe, it is the only museum of diverse forest plantings and the base for long-term stationary research. Over 80 bird species inhabit this forestland.

The R.I. Shroeder Arboretum, located in the center of the University's territory, had been laid out two years before the foundation of Petrovskaya



Academy. At present, the Arboretum occupies 12 hectares, and about 500 tree and shrub species originating from Europe, Asia and North America grow here. The layout of the Arboretum's collection is specifically designed for educational purposes – to instruct students during excursions and lab work. The immense constellation of trees and shrubs create a beautiful landscape, making the Arboretum a masterpiece of the landscape art. The Historical



park and the Arboretum are heritage-listed landscape objects protected by the government.

The Botanic Garden of the University was founded in 1896. About 3000 plant species are in its collection, and more than 500 species of tropical and subtropical plants are grown in the greenhouse.

The Michurin Orchard ranks among the best orchards in terms of the diversity of fruit trees grown in the central Russia and provides planting stock for the country's non-black soil regions.

2015





International Activity

RSAU-MTAA is involved in academic cooperation with a wide range of universities and research centers throughout the world. RSAU-MTAA is the leading organization in bringing together and forming coalitions of major partners in agricultural education and research in the Russian Federation and CIS countries.

RSAU-MTAA is a member of the prestigious international organizations such as the Association for European Life Science Universities (ICA) and Global Consortium of Higher Education and Research for Agriculture (GCHERA).

The University is also a partner in international projects, such as Tempus, 7th European Framework Program, DAAD (German Academic Exchange Service). During the last ten years, RSAU– MTAA has participated in more than 10 different Tempus projects in the areas of economic and environmental education and quality management in education, the project of the World Bank «ARIS» to support agrarian reforms in Russia, the project of the World Bank Institute of Economic Development to train lecturers in the area of project analysis, research projects of EC «INTAS», the project «REAP» (Regional academic cooperation) of the Ministry of International Development of Great Britain and the project of the German Society of Technical Cooperation (GTZ) to create the Center for Sustainable Development of Rural Territories.



Russian State Agrarian University -





University's active international position enables it to cooperate with key international organizations and institutions such as the World Bank, European Commission, NATO, FAO, Price Waterhouse and Coopers, etc.

1865

Since 2007, the University has participated in Erasmus Mundus - External Cooperation Windows, Erasmus+, Credit Mobility and Jean Monnet Projects. This project made it possible for



100 students, PhD candidates and academic staff to receive practical training at various European universities.

RSAU-MTAA is engaged in the student exchange and the development of new curricula, double-degree programs, and the use of distance learning with universities from Europe, America, Asia, Australia and Africa.





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Foreign partners of Russian State Agrarian University - Moscow Timiryazev Agricultural Academy in research, teaching and didactics:

ARMENIA

Armenian National Agrarian University, Yerevan

AUSTRIA

University of Natural Resourses and Applied Life Sciences (BOKU), Vienna

AZERBAIJAN Azerbaijan State Agricultural University, Ganja

BELARUS State Agricultural Academy, Minsk Belarusian State Agricultural Academy, Gorki

BELGIUM Ghent University

BULGARIA Agricultural University of Plovdiv Angel Kanchev University of Ruse

CANADA University of Ottawa

CHINA Beijing University of Agriculture Shandong Hydrotechnical University

Agricultural University, Nanjing

CZECH REPUBLIC Czech University of Life Sciences, Prague

University of South Bohemia, Ceskie Budejovice Mendel University of Agriculture and Forestry, Brno

ESTONIA Estonian University of Life Sciences

– EMU, Tartu

DENMARK University of Copenhagen

EGYPT Tanta University

FRANCE

Consortium of Agricultural University Colleges FESIA (ESA), Angers

Higher Agronomic School, Dijon

GEORGIA

Agricultural University of Georgia, Tbilisi

GERMANY

Humboldt University of Berlin University Hohenheim, Stuttgart Technical University of Munich University of Tübingen

GREAT BRITAIN Institute of Food Research, Colney

GREECE Agricultural University of Athens Mediterranean Agronomic Institute of Chania University of Crete, Rethymnon

HUNGARY Szent Istvan University, Godollo University in Debrecen, Centre of Agricultural Sciences Kaposhvar University

INDIA Punjab Agricultural University, Ludhiana

ITALY University of Udine Sant'Anna School of Advanced Studies, Pisa

ISRAEL Hebrew University of Jerusalem

KAZAKH REPUBLIC Kazakh National Agrarian University, Almaty Al-Farabi Kazakh National Univer-

sity, Almaty Zhangir Khan West Kazakhstan

Agrarian and Technical University, Uralsk

KYRGYZSTAN Kyrgyz National Agrarian University named after K.I. Skryabin, Bishkek

LITHUANIA Aleksandras Stulginskis University, Tartu

MOLDOVA State Agrarian University of Moldova, Chisinau

MONGOLIA Mongolian State University of Agriculture, Ulan-Bator

The NETHERLANDS Wageningen University and Research Centre (WUR)

POLAND Warsaw University of Life Sciences (SGGW)

PORTUGAL Polytechnic Institute of Coimbra

SERBIA University of Novi Sad University of Kragujevac

SLOVAKIA Slovak University of Agriculture, Nitra

SPAIN University of Lleida – UdL

SUDAN Sudan Academy of Sciences, Khartoum

SWEDEN Uppsala University Lund University

TADJIKISTAN Tadjik Agrarian University named Shirinsho Shotemur, Dushanbe

UKRAINE Natural University of Life and Environmental Sciences of Ukraine, Kiev

UZBEKISTAN Tashkent State Agrarian University

USA

University of Maryland, College Park

Clemson University Pennsylvania State University Iowa State University, Ames State University of Colorado, Fort Collins



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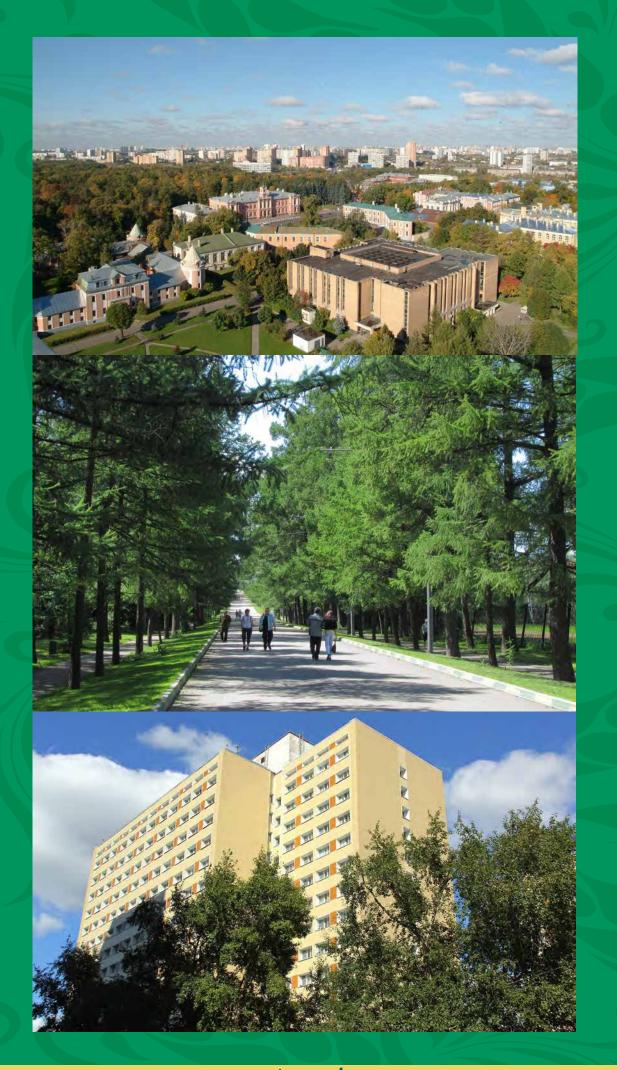
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