



Российский университет дружбы народов

- **ECOLOGY DEPARTMENT**



Master's Degree Program :Impacts of Climate Change on Society and Environment



- **ECOLOGY DEPARTMENT**

The M.A Program in Climate and Society combines elements of established programs in

Earth Sciences

Earth Engineering

Sociology

Economics

Cycles	Disciplines	Departments	Course 1 - 12 Stud.						
			1 sem.-17 weeks			Credit	2 sem.-18 weeks		
			Aud.				A		
			Lec.	Lab.	Sem.		Lec.	Lab.	
Block 1	Disciplines (modules)								
M.1.B	Base part								
M.B.1	Foreign (Russian) language	Foreign lang. Ecology Faculty/Rus. lang. Eng. Faculty			2	2			
M.B.2	Philosophical problems of nature sciences	Onthology					1		
M.B.3	IT in ecology and natural resources management	Applied Ecology							
M.2.B.1	Modern problems of Ecology	System Ecology			2	2			
M.2.B.2	Estimations of natural resources	Geoecology							
M.2.B.3	Management of environmental-economic risks	Forensic ecology							
M.1.B	Variable part								
M.1.B.1	Management of natural resources	Applied Ecology	1		1	2			
M.1.B.2	Economic aspects of natural resources management	Applied Ecology	1		1	3			
M.1.B.3	Methodology of scientific creation	Environmental Monitoring							
M.2.B.1	Environmental normalization	Applied Ecology							
M.2.B.2	Ecologic-economical aspects of environmental projects	Applied Ecology							
M.2.B.3	Industrial nature management and economics	Applied Ecology	1		2	4			
M.2.B.4	Modern technologies for nature protection	Environmental Monitoring							
M.2.B.5	Integrated management systems	Environmental Monitoring					1		
	Elective: (1 of 2)		1		1	3			
M.1.B.4	History and methology of ecology and nat. resources manag.	System Ecology							
M.1.B.5	Environmental statistic	Applied Ecology							
	Elective: (1 of 2)								
M.2.B.6	Natural and industrial emergency situations and accidents	Forensic ecology							
M.2.B.7	Standards of environ. Manag. and occupational safety	Applied Ecology							
	Elective: (1 of 2)				2	4			
M.2.B.8	Engineering ecology	Applied Ecology							
M.2.B.9	Monitoring of environmental impacts	Environmental Monitoring							
	Elective: (1 of 2)								
M.2.B.10	Industrial safety	Applied Ecology							
M.2.B.11	Wastes: Landfills, Processing and Recycling	Environmental Monitoring							
Block 2	Practice and research work								
	Research practice								
	Research work					9			
Block 3	Final state certification								



Kurbatova A.I. Tarko A.M.



OUR PUBLICATIONS

1. Influence of industrial emissions of CO₂ on biospheric parameters of ecosystems of the countries of BRICS.
2. Calculation of the Role of Indochina forest biogeocenoses in Global Warming
3. Global Warming and its Influence on the Dynamics of Productive Capacity of Natural Biota and Humus in the Soils of South Regions of the Volga Basin

***A.M. Tarko Prof., Dr. Sci,
Ph.D.
Senior Research Fellow of
Dorodnitsyn Computing
Center, Russian Ac.Sc.
e-mail: tarko@bmail.ru***

***Ph.D., associate Professor of the
Department of environmental
monitoring and prediction of the
Ecological faculty of PFUR
8-(916)431-49-46
kurbatova_a@pfur.ru
Peoples' Friendship University
of Russia, Moscow***



The Presidium of the working session:
A. Bedritskiy, A. Frolov, Thomas Stocker,
Jonathan Lynn, M. Yakovenko



Speech by A. Bedritskiy, Advisor to the President of
the Russian Federation, Special Representative of
Russian President on climate



Moscow hosted a regional presentation of the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) with the support of Rosgidromet on 21-22 of September, which was attended by representatives of PFUR Ecological faculty.



Associate Professor of environmental monitoring and forecasting
department A. I. Kurbatova, Associate Professor of judicial ecology
department J. I. Baeva and Director of Department of CO2
emissions.



Master's Degree Program: Applied Ecology

Monitoring of environmental pollution (water pollutants)



On completion of the Course the student is expected:

- *to know* the purpose of monitoring, the several varieties of monitoring; control system and feedback connection characteristics, modeling of ecological monitoring;
- *be acquainted with:* development of environmental monitoring programs
- *to master* the purpose of monitoring and the classification of environmental monitoring kinds; the system of monitoring methods, feedback connections in managing, and environmental monitoring control methods.

<i>Cycles</i>	Disciplines	Departments
Block 1	Disciplines (modules)	
M.1.B	Base part	
M.B.1	Foreign (Russian) language	Rus. lang. Eng. Faculty
M.B.2	Philosophical problems of nature sciences	Cocial Philosophy
M.B.3	IT in ecology and natural resources management	Applied Ecology
M.B.4	Maping and GIS-technologies	Environmental Monitoring
M.B.5	Radioecology	Forensic ecology
M.B.6	Fundamentals of ecological biotechnology	System Ecology
M.1.B	Variable part	
M.1.B.1	Modern problems of Ecology	System Ecology
M.1.B.2	Monitoring of environmental pollution	Environmental Monitoring
M.1.B.3	Modern technologies for nature protection	Environmental Monitoring
M.1.B.4	Investigation techniques of environmental pollution	Forensic ecology
M.1.B.5	Standards of environment quality management and occupational safety	Applied Ecology
M.1.B.6	Landscape planning	Geoecology
M.1.B.7	Wastes: landfields, procesing, recycling	Environmental Monitoring
M.1.B.8	Sustainable development	System Ecology
M.1.B.9	Ecological psychology	Human ecology
M.1.V.1	Elective: (1 of 2)	
	Macroecology and bases of ecological development	Environmental Monitoring
	International cooperation in the field of nature protection	Environmental Monitoring
M.1.V.2	Elective: (1 of 2)	
	Methods and tools for forensic examination	Forensic ecology
	Quality assurance of the environment with the use of computer methods	Forensic ecology
M.1.V.3	Elective: (1 of 2)	
	Metrology	Environmental Monitoring
	Biological methods of environmental control (biotesting, bio)	Applied Ecology
Block 2	Practice and research work	
	Research practice	
	Research work	
Block 3	Final state certification	
	Final state exam	
	Master thesis	

Aims and Objectives:

The main purpose is to introduce students to their fundamental theoretical knowledge concerning ecological monitoring of water, its purposes and objectives.

The aim of the course is

- researching systems of observation methods and ground-based environmental monitoring system support
- to get the students to know system control and feedback connection characteristics in the environmental monitoring system

Columbia, Guatemala



Tanzania



***Ph.D., associate Professor of the
Department of environmental
monitoring and prediction of the
Ecological faculty of PFUR
8-(916)431-49-46
kurbatova_a@pfur.ru
Peoples' Friendship University of
Russia, Moscow***



Master's Degree Program : “Solid Waste as Renewable Energy and Industrial Energy Efficiency Source”

The goal of training



to provide additional knowledge and skills in the field of solid waste formation, consumption, in particular the planning and organization of work on the handling of municipal and hazardous waste, their utilization, safe storage and processing.

Main competences of the program:

- **studying of modern best available technologies and features of storage, processing and utilization of industrial and municipal waste;**
- **studying of the waste management fundamentals for organization activities on the collection, storage, transportation and temporary storage of hazardous industrial and domestic waste;**
- **familiarization with the basic principles of harmful effects rationing during treatment with industrial and municipal waste**
- **skills of feasibility calculations while choosing the best method of processing and recycling of waste**
- **skills of energy balance compilation when choosing the method of production and consumption waste**

KHARLAMOVA MARIANNA

***Ph.D., associate Professor, Chief of the
Department of environmental monitoring
and prediction , Ecological faculty , PFUR
8-(916)680-15-87***

***kharlamova_md@pfur.ru
Peoples' Friendship University of Russia,
Moscow***



International Publications with students:

1. **Kharlamova M., Priscila Arias** ASSESSMENT OF PROTECTIVE AND REGENERATIVE POTENTIAL OF SWAMP ECOSYSTEMS AS NATURAL TREATMENT SYSTEMS FOR OIL POLLUTION IN THE AREA LAGO AGRIO (AMAZON, ECUADOR) (2015)
2. **Kharlamova M., Mada Sharon Yeukai** TOPICAL ENVIRONMENTAL ISSUES IN URBAN AFRICA: THE CASE OF HARARE, ZIMBABWE (2015)
3. **Kharlamova M., Koroma Fuad M.** INDEPENDENT ENERGY SUSTAINABILITY: A CRITERION FOR DEVELOPMENT IN WEST AFRICA (2016)
4. **Kharlamova M., Mada Sharon Yeukai, Gratchev V.** LANDFILLS: PROBLEMS, SOLUTIONS & DECISIONMAKING TO WASTE DISPOSAL IN HARARE (ZIMBABWE) (2016)



Stability training plan (fragment)

M.1.B.7	Technologies of municipal waste recycling and utilization				
M.1.B.8	Documentation of the waste management activities				
M.1.B.9	Regional and municipal waste management systems				
M.1.B.10	Radioactive Waste Management Features				
M.1.B.11	Technologies of industrial waste recycling and disposal				
M.1.B.12	Technologies of solid waste preparation and disposal				
	Elective courses				
M.1.B.13	One from two disciplines				
	Methods of environmental control and identification of waste components				
	Physico-chemical and analytical methods for the control of waste components				
M.1.B.14	One from two disciplines				
	Methods of decoding and processing				
	The use of remote methods for waste management controls				
M.1.B.15	One from two disciplines				
	Programs in the field of waste management monitoring				
	Industrial monitoring for waste management				
M.1.B.16	One from two disciplines				
	Insurance of technological hazards				
	Ecological insurance				
M.1.B.17	One from two disciplines				
	Environmental danger of waste				
	The waste in the environment				

