RUSSIAN STATE HYDROMETEOROLOGICAL UNIVERSITY
REGIONAL METEOROLOGICAL TRAINING CENTRE
of WORLD METEOROLOGICAL ORGANIZATION

EDUCATIONAL PROGRAMMES

Curricula

Saint-Petersburg
2007

This brochure represents the collection of all training programmes curricula of higher professional education in the field of the environmental sciences carried out at the Russian State Hydrometeorological University (RSHU). Modern requirements of hydrometeorological labour market include not only professional competences and skills in meteorology, hydrology, oceanography and ecology, but also in environmental management and economy. Especially it is necessary to place emphasis on specialization «Integrated Coastal Zone Management", which is absolutely new, intensively developing direction of professional activity for Russia and many states of the world.

It is necessary to note, that all levels of higher education, namely: BSc, MSc, Diploma Specialist provided by the Russian legislation are realized in RSHU.

Russia has signed and ratified the Convention of Lisbon on the recognition of higher education degrees, and also has signed Bologna Declaration. It gives a new impulse to development of the international student's mobility in the European region. Thereupon the present brochure, undoubtedly, will be interesting to both students of the European countries, who would like to receive the Russian education and also to the citizens of the non-European states assuming training in Russia.

The Russian State Hydrometeorological University is open for everyone, providing high quality of education in the field of environmental science.

Sincerely yours,

Anatoly I.Bogush,
The Vice-rector of International Relations

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INTRODUCTION

The Russian State Hydrometeorological University (RSHU) is the first university in the world and the only educational institution in Russia for training experts in the field of Hydrometeorology. It was founded in 1930 in Moscow, transferred to Leningrad (at present Saint-Petersburg) in 1944 and named Leningradsky Hydrometeorological Institute. In 1992 it was renamed as State Hydrometeorological Institute of the Russian Federation. In 1995 the institute was declared as Regional Training Center of World Meteorological Organization (WMO). In 1998 it took the university status and since then it bears present name. At the present over 3 000 students study at the University including foreign students from all over the world. The RSHU's diplomas are world-wide recognized.

The University includes seven faculties:

* Faculty of Meteorology
* Faculty of Hydrology
* Faculty of Oceanography
* Faculty of Ecology and Environmental Physics
* Faculty of Economics and Socio-Humanitarian Sciences
* Faculty of Corresponding Learning
* Faculty of Advanced Education.

Full-time programmes are realized at the faculties of Meteorology, Hydrology, Oceanography, Ecology and Environmental Physics, Economics and Socio-Humanitarian Sciences. Part-time programmes are carried out at the faculties of Corresponding Learning and Advanced Education.

All educational programmes are accredited by the Ministry of Education and Science of the Russian Federation. In a field of study students may choose Specialties and Specializations.

Teaching process is provided by high-qualified professor and teaching staff at more than 20 departments of the University and is carried out in the laboratories equipped with special devices for training purposes. Other facilities are available for research and teaching purposes as well, namely: the training practical centers situated in various regions of Russia, a research ship etc.

University programmes meet all the requirements set by the Ministry of Education and Science of the Russian Federation to university education quality. There are three levels of higher education: 1) incomplete higher education (2 years at least); 2) 4-year programmes leading to the Bakalavr's degree, the first final university degree; 3) postgraduate studies with duration of 1-2 years leading to the Specialist Diploma or the Magistr degree. Higher Education Institutions are authorized to award the Magistr's degree after the completion of 2 years of study or the Specialist Diploma after 1 year of study following upon the Bakalavr's degree. Scientific degrees in Russia traditionally include two levels of doctoral degrees: the Candidate of Sciences (the first level, equivalent to PhD) and the Doctor of Sciences (the second, highest level).

Bakalavr (Bachelor's) degree programmes last for at least 4 years of full-time university-level study. The programmes are elaborated in accordance with the State Educational Standards which regulate 50% of the content, the other 50% being developed by the university. The programmes include professional and special courses in Science, the Humanities and Socioeconomic disciplines, professional training, completion of final research paper/project and sitting for State final exams. Having obtained the Bakalavr degree, students may apply to enter the Magistr programmes or continue their studies in the framework of the Specialist Diploma programmes.

Holders of the Bakalavr are admitted to enter the Specialist Diploma and Magistr programmes. Access to these programmes is competitive. The Magistr degree is awarded after successful completion of two years of full-time studies. Students must complete advanced studies, prepare and defend a thesis and sit for final examinations.The Specialist Diploma can be earned in two ways: upon completion of at least 1 year's study after the Bakalavr programme or upon completion of five to six years' continuous study beyond the Attestat o Srednem (Polnom) Obshchem Obrazovanii. The Specialist Diploma is a professional qualification that gives the right to exercise professional activities and to apply for doctoral programmes. It is conferred after the students have completed advanced studies, prepared and defended a thesis and sat for final examinations.

Access to the Aspirantura is competitive. Applicants must hold a Specialist Diploma or a Magistr degree. Studies last for 3 years. The Aspirantura programmes train for research and teaching activities. Students must learn research and teaching methods, and pass qualifying (Kandidat Nauk) exams in certain fields of study. After carrying out independent research, preparing and defending a dissertation in public, they are awarded the Kandidat Nauk scientific degree.

The Doctor Nauk programme duration is not fixed (from 5 to 15 years). It follows the Kandidat Nauk degree; The Doctor Nauk scientific degree is awarded after the public defence of a dissertation. It does not always have an equivalent in other countries.

GENERAL STRUCTURE OF RSHU
Contact mails

FACULTIES

- Meteorology
- Hydrology
- Oceanography
- Ecology and Environmental Physics
- Economics and Socio-Humanitarian Sciences
- Correspondence Learning
- Professional Development and Retraining

Academic Council

Rector,
rector@rshu.ru
Vice-rector for Academic Affairs,
sakovitch@rshu.ru
Vice-rector for Academic Association of University,
belotserkovsky@rshu.ru
Vice-rector for Research Centre,
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Vice-rector for International Relations,
bogush@rshu.ru
Vice-rector for Maintenance Department,
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EXECUTIVE SERVICES

- Research Center
- Library
- International Relations Office
- Information Technologies Center

DEPARTMENTS OF RSHU

Faculty of Meteorology:
Department of Hydrometeorological Forecasts
Department of Meteorology, Climatology and Atmosphere Protection
Department of Atmosphere Dynamics and Remote Sensing
Department of Experimental Physics of Atmosphere

Faculty of Hydrology:
Department of Hydrometry
Department of Hydrogeology and Geodesy
Department of Continental Hydrology
Department of Hydrophysics and Hydrological Forecasts

Faculty of Oceanography:
Department of Oceanography
Department of Integrated Coastal Zone Management
Department of Fishery Oceanography and Nature Waters Protection
Department of Marine Information Technologies

Faculty of Ecology and Environmental Physics:
Department of Mathematics and Theoretical Mechanics
Department of Physics
Department of Environmental Chemistry
Department of Ecology
Department of Applied Ecology

Faculty of Economics and Socio-Humanitarian Sciences
Department of Economics and Management
Department of Socio-Humanitarian Sciences
Department of Foreign Languages
Department of Russian Language and Public Relations
Department of Physical Training
Department of Enterprise Economics and Entrepreneurship

Part-time programmes of study at **faculties of Corresponding Learning and Advanced Education** are realized using facility of five faculties indicated above.

GENERAL ACADEMIC INFORMATION

General entry requirements

Entry to Higher Education in Russia is based on possession of the school leaving certificate (secondary school certificate) and upon passing competitive entrance examinations.

To enter an undergraduate programme at RSHU applicant should be aged between 17 and 35. The subjects of examinations are defined by faculty which applicant is going to join (usually Mathematics, Physics, Essay in Russian or Russian History). Entry examinations are conducted on fixed dates in several phases from April till July every year. Olympiads on the subjects mentioned above take place in April and May; its successful results are to be considered as entries.

To enter a postgraduate programme applicant should have a Bachelor's degree or Specialist Diploma in appropriate scientific fields.

The academic year

RSHU's academic year is divided into two semesters. Semester-I runs from 1st of September to the last week of December and Semester-II – from early February to early June. In addition to the two semesters, a four-week winter session and six-week summer session are intended for passing the examinations.

Classes are conducted in each semester for a period of about fifteen weeks. At the end of each semester, there is an examination period preceded by one week for tests passing. Classes' periods are forty five minutes long and called an academic hour. The average students' loading is 30 academic hours per week.

Successful full-time student usually have to pass 10 exams and 12 tests per academic year in both forms oral and written. Part-time students should implement most of tests at home and send them by regular post to course's tutors for checking up. They come to the University twice a year in autumn and spring for approximately one month to take short courses and pass the exams in according to their study programmes.

Grading system

To complete a course in RSHU each student should pass all examinations or tests during sessions. The quality of academic progress indicates following grades (foreign analogue of the grade is given in parentheses):

5 – Exceptional achievement (excellent);
4 – Extensive achievement (good, satisfactory);
3 – Acceptable or minimal achievement (satisfactory, poor);
Passed – acceptable achievement for tests.

There is no "failure" grade in Russian universities. If student fails one of examinations in the period of session he reserves a time during next semester to re-pass it. In the case of continual failure of the examination student is withdrawn and is to start from the beginning semester with failed course again next academic year. Naturally, successful results of completed courses are to be transferred next year.

Admission/Tuition fees

There are three ways for foreigners to enter the University, namely:

1. The scholarship from World Meteorological Organization under the Voluntary Cooperation Programme (for information please visit www.wmo.ch/web/etr/fellowships.html)
2. The scholarship of the Ministry of Education and Sciences of the Russian Federation (the government of your country should contact the Ministry of Education and Sciences of the Russian Federation. (www.mon.gov.ru) Within the limits of the allocated quotas for foreign countries the Russian Ministry may award you the scholarship for training at RSHU)
3. On the contract basis (student should pay tuition fee). In this case candidate for training should contact International Relations Office of RSHU directly. Contact details are given on the back cover of this book.

Teaching approaches

Study on all programmes at RSHU is provided in Russian and determined by Curricula of RSHU and Standards of the Ministry of Education and Sciences.

There is the special course at Meteorological faculty for English speaking group of students who has the specialized subjects in English. Students graduated this course receive the Russian Bakalvr's Diploma and Certificate which certifies that student has successfully completed the course of meteorology conducted by RTC of WMO and has been awarded academic degree of Bachelor of Science that corresponds to professional qualification of meteorologist under the WMO qualification.

International students are to attend one-year preparatory course in RSHU or other University where they learn Russian Language and general courses of Secondary School in Russian.

EDUCATIONAL PROGRAMMES
of full-time study

Faculty of Meteorology

Award Duration of study	Field of Study Speciality	Specializations	Code by Ministry of Education RF
Bachelor of Science (BSc) 4 years	Hydrometeorology	* Meteorology	02060062
Master of Science (MSc) 2 years	Hydrometeorology	* Meteorological Forecasting * Atmosphere Pollution and Protection * Climatology * Agricultural Meteorology * Aviation Meteorology * Information Measuring Systems in Hydrometeorology * Biological Meteorology	02060068
Diploma Specialist 5 years	Hydrometeorology Meteorology	* Meteorology * Hydrodynamic Forecasting in Meteorology * Information Measuring Systems in Hydrometeorology	02060265

Faculty of Hydrology

Award Duration of study	Field of Study Speciality	Specializations	Code by Ministry of Education RF
Bachelor of Science (BSc) 4 years	Hydrometeorology	* Hydrology	02060062
Master of Science (MSc) 2 years	Hydrometeorology	* Reservoir Hydrology * Channel Processes * Hydrological Forecasting * Water Resources Conservation	02060068
Diploma Specialist 5 years	Hydrometeorology Hydrology	-	02060165

Faculty of Oceanography

Award Duration of study	Field of Study Speciality	Specializations	Code by Ministry of Education RF
Bachelor of Science (BSc) 4 years	Hydrometeorology	* Oceanography	02060062
Master of Science (MSc) 2 years	Hydrometeorology	* Technical Oceanography * Fishery Oceanography * Physical Oceanography	02060068
Diploma Specialist 5 years	Hydrometeorology Oceanography	* Technical Oceanography * Fishery Oceanography * Physical Oceanography	02060365
	Shipboard Equipment Marine Information Systems and Equipment	-	18030465
	Information Security Information Security of Telecommucation Systems	-	09010665
	Management Management of Organization	* Integrated Coastal Zone Management	08050765

Faculty of Ecology and Environmental Physics

Award Duration of study	Field of Study Speciality	Specializations	Code by Ministry of Education RF
Bachelor of Science (BSc) 4 years	Ecology and Natural Resource Management	* Ecological Expertise * Social Ecology	02080062
	Physics	-	01070062
Master of Science (MSc) 2 years	Ecology and Natural Resource Management	* Geoecology * Geoecological Monitoring * Social Ecology	02080068
Diploma Specialist 5 years	Ecology and Natural Resource Management Geoecology	* Ecological Expertise * Social Ecology	02080465

	Management Management of Organization	* Management in Ecological Tourism	08050765

Faculty of Economics and Socio-Humanitarian Sciences

Award Duration of study	Field of Study Speciality	Specializations	Code by Ministry of Education RF
Diploma Specialist 5 years	Journalism Public Relations	* Public Relations in the Environment	03060265
	Management Environmental Economics and Management	-	08050265
	Management Management of Organization	-	08050765

CURRICULA

Faculty of Meteorology

Field of study "Hydrometeorology"
Duration: 4 years
Award: Bachelor of Science (code 02060062)
Specialization: Meteorology

Course	Total	In-door	Lectures	Semesters	Completion requirements
Russian Language and Standard of Speech	144	54	18	1	Test
History of Russia	154	84	50	1 — 2	Test, Examination
* Computer Organization and Programming	193	118	68	1 — 2	Examinations
Chemistry	141	86	52	1 — 2	Examinations
Cartography and Introduction to Topography and Geodesy	143	68	34	1 — 2	Tests
Mathematics	678	358	186	1 — 4	Examinations, Test
Physics	406	306	136	1 — 4	Examinations, Test
English Language	336	136	-	1 — 4	Tests, Examination
Physical Education	402	402	-	1 — 8	Tests
Landscape and Physical Geography	98	48	32	2	Test
Theoretical Mechanics	66	36	18	3	Test
Electrotechnics and Electronics	147	72	54	3	Examination
Philosophy	164	84	50	3 — 4	Test, Examination
* Physical Meteorology	203	188	102	3 — 4	Examinations
Science of Materials	71	16	16	4	Test
Oceanology	68	32	16	4	Test
Mechanics of Fluids and Gases	312	172	86	4 — 5	Test, Examination
Methods and Devices of Hydrometeorological Measurements	199	184	100	4 — 6	Test, Examinations
Elective Natural Science Courses	251	36	36	5	Test
Land Hydrology	68	36	36	5	Test
Hydraulics	128	18	18	5	Test

Metrology, Standardization and Certification	71	36	18	5	Test
Calculus Mathematics	84	54	36	5	Examination
Theory of Probability and Mathematical Statistics	112	72	36	5	Examination
Economics	164	84	50	5 — 6	Test, Examination
Science of Law	112	32	16	6	Test
Climatology	78	48	32	6	Test
Methods of Statistical Processing and Analysis of Hydrometeorological Information	144	64	32	6	Test
Space Meteorology	98	48	32	6	Test
Dynamic Meteorology	85	80	48	6	Examination
Elective Professional Courses	84	68	68	6 — 7	Tests
Synoptic Meteorology	199	154	68	6 — 7	Test, Examinations
Advanced Synoptic Meteorology	89	54	18	7	Test
Safety of Vital Activity	100	54	18	7	Test
Methods of Environment Sounding	144	54	36	7	Examination
Satellite Sensing of the Environment	89	54	36	7	Examination
Theory of Climate	167	72	36	7	Examination
Elective Humanitarian Courses	262	62	62	7 — 8	Tests
Agricultural Meteorology	95	75	62	7 — 8	Test, Examination
Hydrometeorological Aspects in Environment Protection	78	39	26	8	Test
Hydrometeorological Information Systems	74	39	26	8	Test
Meteorological Service for National Economy	86	26	13	8	Test
Mesoscale Meteorology and Now-casting	74	39	26	8	Test
Hydrodynamic Forecasts	97	52	26	8	Examination
Aviation Meteorology	74	39	26	8	Examination
Biology and Introduction to Ecology	82	52	26	8	Examination
Additional Courses for International Students					
Foreign Meteorological Equipment	72	72	54	5	Test
Regional Methods of Long-term Meteorological Forecast in Tropical Region	48	48	32	6	Test
Tropical Meteorology	108	108	54	7	Test

TOTAL hours	7100	3917	1913	-	-

Supplements

Training practices on "Computer classes" are carried out in 2nd semester for two weeks, on "Physical Meteorology" – in 4th semester for five weeks; the duties on meteorological observations are held at Meteorological Station in 3 – 4th semesters, in Weather Bureau in 6 – 8th semesters, at Upper-air (aerologic) and Weather Radar Stations in 7th semesters.

Practical training is carried out in 6th semester for 5 weeks.

Students should pass term papers on Courses marked with (*) in table, term paper for student choice and in addition to course work on Bachelor research project.

State Examination is passed on "Physical Meteorology", "Geophysical Hydrodynamics" and "Methods and Devices of Hydrometeorological Measurements".

Field of study "Hydrometeorology"
Duration: 4 years
Award: Bachelor of Science (code 02060062)
Specialization: Meteorology
Bold-typed Courses are taught in English

Course	Total	In-door	Lectures	Semesters	Completion requirements
Russian Language and Standard of Speech	124	54	18	1	Test
Introduction to Specialty	98	68	-	1 — 2	Tests
History of Russia	154	84	50	1 — 2	Test, Examination
* Computer Organization and Programming	193	118	68	1 — 2	Examinations
Chemistry	162	86	52	1 — 2	Examinations
Mathematics	678	358	186	1 — 4	Examinations, Test
Physics	401	306	136	1 — 4	Examinations, Test
English Language	326	206	-	1 — 4	Tests, Examination
Physical Education	402	402	-	1 — 8	Tests
Landscape and Physical Geography	98	48	32	2	Test
Electrotechnics and Electronics	152	72	54	3	Examination
Theoretical Mechanics	82	72	36	3	Test
Philosophy	144	84	50	3 — 4	Test, Examination
*** Physical Meteorology**	204	188	102	3 — 4	Examinations
Oceanography	62	32	16	4	Test
Mechanics of Fluids and Gases	318	188	86	4 — 5	Test, Examination
Methods and Devices of Hydrometeorological Measurements	214	184	100	4 — 6	Test, Examinations
Cartography and Introduction to Topography and Geodesy	252	72	36	5	Tests
Elective Natural Science Courses	76	36	36	5	Test
Advanced Synoptic Meteorology	264	54	54	5	Test
Land Hydrology	116	36	36	5	Test
Calculus Mathematics	114	54	36	5	Examination
Theory of Probability and Mathematical Statistics	142	72	36	5	Examination
Economics	154	84	50	5 — 6	Test, Examination

Science of Law	102	32	16	6	Test
Methods of Statistical Processing and Analysis of Hydrometeorological Information	154	64	32	6	Test
Space Meteorology	108	48	32	6	Test
Elective Professional Courses	83	32	32	6	Test
Climatology	113	48	32	6	Examination
Dynamic Meteorology	100	80	48	6	Examination
Synoptic Meteorology	210	120	68	6 — 7	Test, Examinations
Safety of Vital Activity	104	54	18	7	Test
Methods of Environment Sounding	154	54	36	7	Examination
Introduction to Theory Climate	240	36	36	7	Examination
Elective Humanitarian Courses	282	62	62	7 — 8	Tests
Agricultural Meteorology	105	75	62	7 — 8	Test, Examination
Mesoscale Meteorology and Now-casting	191	111	62	7 — 8	Test, Examinations
Hydrometeorological Aspects in Environment Protection	89	39	26	8	Test
Aviation Meteorology	69	29	36	8	Test
GIS	139	39	26	8	Test
Hydrodynamic Forecasts	94	52	26	8	Examination
Biology and Introduction to Ecology	77	52	26	8	Examination
Additional Courses for International Students					
Foreign Meteorological Equipment	72	72	54	5	Test
Regional Methods of Long-term Meteorological Forecast in Tropical Region	48	48	32	6	Test
Tropical Meteorology	108	108	54	7	Test
TOTAL hours	6932	4011	1952	-	-

Supplements

Training practices on "Computer classes" are carried out in 4th semester for two weeks, on "Physical Meteorology" – in 4th semester for five weeks; the duties on meteorological observations are held at Meteorological Station in 3 – 4th semesters, in Weather Bureau in 6 – 8th semesters, at Upper-air (aerologic) and Weather Radar Stations in 7th semesters.

Practical training is carried out in 6th semester for 5 weeks.

Students should pass term papers on Courses marked with (*) in table and term paper for student choice in addition to course work on Bachelor research project.

State Examination is passed on "Physical Meteorology", "Geophysical Hydrodynamics" and "Methods and Devices of Hydrometeorological Measurements".

Field of study "Hydrometeorology"
Duration: 2 years
Award: Master of Science (code 02060068)
Specialization: Meteorological Forecasts,
Atmosphere Pollution and Protection,
Climatology,
Agricultural Meteorology,
Aviation Meteorology
Information Measuring Systems in Hydrometeorology,
Biometeorology

Course	Total	In-door	Lectures	Semesters	Completion requirements
Advanced Physics of the Atmosphere, Inland Waters and Oceans	275	72	54	9	Examination
Philosophy	187	54	36	9	Examination
Hydrodynamic Modelling of Natural Processes	127	72	36	9	Examination
English Language	175	140	0	9 — 10	Test, Examination
Information Measuring Systems in Hydrometeorology	181	51	34	10	Examination
Aerospace Methods of Environment Research	81	51	34	10	Examination
Economics of Nature Resources Management	94	54	36	11	Examination
Scientific Style of Speech	66	36	36	11	Test
Special Courses for studying "Meteorological forecasts"					
Numerical Methods in Atmospheric Modelling	105	105	70	9 — 10	Tests, Examinations
Short-range and Medium-range Hydrodynamic Forecasting	51	51	34	10	Examination
Long-range Hydrodynamic Forecasting	88	88	53	10 — 11	Test, Examination
Physical and Statistical Forecasting	36	36	36	11	Examination
Preparation Initial Data for Hydrodynamic Forecasting	72	72	36	11	Test, Examination
Eddy Dynamics	72	72	36	11	Examination
Special Courses for studying "Atmosphere Pollution and Protection"					
Theory of Atmospheric Turbulence and Admixture Transfer into Atmosphere	105	105	70	9 — 10	Tests, Examinations
Ecological Information Science and Land Cadastre	105	105	70	10	Examination

Mathematical Modelling in Atmosphere Protection	70	70	52	10 — 11	Test, Examination
Methods of Ecological Examination	36	36	36	11	Examination
Admixture Transformation in the Atmosphere	54	54	36	11	Test, Examination
Quality Control and Monitoring of Air Pollution in Megapolises	54	54	36	11	Examination
Special Courses for studying "Climatology"					
Climatological Processing of Meteorological Information	54	54	36	9	Test, Examination
Climatography	34	34	17	10	Test, Examination
Applied Climatography	51	51	34	10	Examination
Physical Aspects of Climate Forms	87	87	52	10 — 11	Test, Examination
Circulation Forms Classification	72	72	36	11	Examination
Theory of General Atmosphere Circulation and Climate	54	54	36	11	Examination
Paleographical, Historical and Contemporary Climate Change	72	72	36	11	Examination
Special Courses for studying "Agricultural Meteorology"					
Soil Science	54	54	36	9	Test, Examination
Mathematical Modelling in Agricultural Meteorology	122	122	70	10 — 11	Tests, Examination
Geographical Information Systems	122	122	70	10 — 11	Tests, Examinations
Agricultural Meteorology	54	54	36	11	Examination
Agricultural Chemistry	72	72	36	11	Examination
Special Courses for studying "Aviation Meteorology"					
Introduction to Aviation	54	54	36	9	Test, Examination
Advanced Synoptic Meteorology	122	122	70	10 — 11	Test, Examinations
Very Short-range Forecasting for Aviation	122	122	70	10 — 11	Tests, Examinations
Aviation Weather Forecasting	54	54	36	11	Examination
Aviation Meteorology	72	72	36	11	Examination
Special Courses for studying "Information Measuring Systems in Hydrometeorology"					
Introduction to Experiment	54	54	36	9	Test,

Theory					Examination
Nowcasting	122	122	70	10 — 11	Tests, Examination
Physical Basis of Influence on Meteorological Processes	122	122	70	10 — 11	Tests, Examinations
Physics of Dangerous Phenomena	54	54	36	11	Examination
Microprocessor Engineering	72	72	36	11	Examination
Special Courses for studying "Biometeorology"					
Methods of Mathematical Statistics in Biometeorology	36	36	18	9	Examination
Meteorological and Heliophysical Aspects in Biometeorology	18	18	18	9	Test
Medical Geography	34	34	34	10	Examination
Modern Computer Programs Use in Statistical Problems Solving	122	122	70	10 — 11	Test, Examinations
Assessment Methods of Biometeorological Potential	88	88	70	10 — 11	Test, Examination
Information Technologies in Biometeorology	54	54	36	11	Test, Examination
Special Meteorological Forecasts for Meteorological Purposes	72	72	36	11	Examination
TOTAL hours	1610	954	513	-	-
Supplements Practice teaching (100 hours) is also carried out in 10th semester as well as self-instruction before presentation of Master research project.					

Field of study "Hydrometeorology"
Duration: 5 years
Award: Diploma Specialist
Speciality: Meteorology (code 02060265)
Specialization: Meteorology,
Hydrodynamic Forecasting in Meteorology

Course	Total	In-door	Lectures	Semesters	Completion requirements
Russian Language and Standard of Speech	134	54	18	1	Test
History of Russia	154	84	50	1 — 2	Test, Examination
* Computer Organization and Programming	193	118	68	1 — 2	Examinations
Chemistry	146	86	52	1 — 2	Examinations
Engineering Drawing	143	68	34	1 — 2	Tests
English Language	336	136	-	1 — 4	Tests, Examination
Physics	401	306	136	1 — 4	Test, Examinations
Mathematics	678	358	186	1 — 4	Examinations, Test
Physical Education	406	406	-	1 — 8	Tests
Geophysics	98	48	32	2	Test
Theoretical Mechanics	66	36	18	3	Test
Electrotechnics and Electronics	145	72	54	3	Examination
Philosophy	164	84	50	3 — 4	Test, Examination
* Physics of the Atmosphere, Ocean and Inland Water	208	188	102	3 — 4	Examinations
Physics of Oceans	42	32	16	4	Test
Materials Science	66	16	16	4	Test
Mechanics of Fluid and Gases	307	172	86	4 — 5	Test, Examination
Methods and Devices of Hydrometeorological Measurements	209	184	100	4 — 6	Examinations
Elective Natural Science Courses	251	36	36	5	Test
Physics of Inland Waters	46	36	36	5	Test
Hydraulics	123	18	18	5	Test
Metrology, Standardization and Certification	66	36	18	5	Test
Theory of Probability and Mathematical Statistics	97	72	36	5	Examination
Calculus Mathematics	79	54	36	5	Examination

Economics	184	84	50	5 — 6	Test, Examination
Statistical Processing Methods of Hydrometeorological Information	144	64	32	6	Test
Space Meteorology	98	48	32	6	Test
Climatology	78	48	32	6	Test
Science of Law	112	32	16	6	Test
Dynamic Meteorology	85	80	48	6	Examination
Elective Professional Courses	82	68	68	6 — 7	Tests
Synoptic Meteorology	199	154	68	6 — 7	Test, Examinations
Safety of Vital Activity	99	54	18	7	Test
Methods of Environment Sounding	144	54	36	7	Examination
Elective Humanitarian Courses	266	66	66	7 — 8	Tests
Agricultural Meteorology	101	81	66	7 — 8	Test, Examination
Geographical Information Systems	70	45	30	8	Test
Control of Environment Pollution	70	45	30	8	Test
Mesoscale Meteorology and Now-casting	70	45	15	8	Test
Aviation Meteorology	70	45	30	8	Examination
Ecology	75	60	30	8	Examination
Hydrodynamic Forecasting	100	60	30	8	Examination
Natural Disasters Forecasting	72	54	36	9	Test
Impact on the Atmospheric phenomena and processes	79	54	36	9	Examination
Economic Meteorology	74	54	36	9	Examination
Additional Courses for International Students					
Foreign Meteorological Equipment	72	72	54	5	Examination
Regional Methods of Long-range Weather Prediction in Tropical Regions	48	48	32	6	Examination
Tropical Meteorology	108	108	54	7	Examination
Specialized Courses for studying "Meteorology"					
Advanced Synoptic Meteorology	89	54	18	7	Test
Climate Theory	167	72	36	7	Examination
Satellite Sensing of the Environment	89	54	36	7	Examination
Control of Environment Pollution	70	45	30	8	Test
Meteorological Service for National Economy	55	30	15	8	Test

GIS	80	45	30	8	Test
Methods of Meteorological Forecasting	89	54	36	9	Test
Regional Synoptic Processes and Forecasting	77	54	36	9	Test
Meteorological Information Supply for Aircrafts	89	54	36	9	Test
Medium-range Forecasting	43	18	18	9	Test
Advanced Dynamic Meteorology	61	36	18	9	Examination
Long-range Forecasting	89	54	36	9	Test
Specialized Courses for studying "Hydrodynamic Forecasting in Meteorology"					
Parametrization of Mesoscale Waves	56	36	36	7	Examination
Eddy Dynamics, Invariants of Atmospheric Models	84	54	36	7	Examination
Numerical Methods of Hydrodynamic Problems Solution	84	54	36	7	Examination
Advanced Synoptic Meteorology	89	54	18	7	Test
GIS	80	45	30	8	Test
Assimilation of Hydrodynamics Data	90	60	30	8	Examination
Regional Synoptic Processes and Forecasts	77	54	36	9	Test
Long-range Forecasting	89	54	36	9	Test
Parametrization of Physical Processes	84	54	36	9	Test
Methods of Meteorological Forecasts	89	54	36	9	Examination
Advanced Dynamic Meteorology	79	54	36	9	Examination
Spectral Forecasting Models	79	54	36	9	Examination
TOTAL hours ("Meteorology")	7255	3905	1943	-	-
TOTAL hours ("Hydrodynamic Forecasting in Meteorology")	7237	3905	1925	-	-

Supplements

There are carried out also training practices on "Computer classes" in 2nd semester for two weeks, on "Physics of the Atmosphere, Inland Water and Ocean" in 4th semester for five, on "Atmospheric Processes Observations" in 6th semester for 5 weeks. All students should attend the duties at Educational Meteorological Station in 3-4th semesters, in Educational Weather Bureau in 6-8th semesters, at Upper-air (aerologic) and Weather Radar Stations in 6-7th semesters. Students have a self-work in 10th semester before presentation of their Specialist research projects.

Practical training is carried out in 8th semester for five weeks and in 10th semester for four weeks.

Students should pass the term papers on Courses marked with (*) in table, two term papers for student choice and one on the graduate qualification work in addition to Course work on Specialist research project.

State Examination for students with "Meteorology" specialization is passed on "Physics of the Atmosphere, Inland Waters and Oceans", "Synoptic Meteorology", "Climatology", "Aviation Meteorology" and "Methods and Devices of Hydrometeorological Measurements".

State Examination for students with "Hydrodynamic Forecasting in Meteorology" specialization is passed on "Dynamic Meteorology", "Hydrodynamic Forecasts", "Synoptic Meteorology", "Climatology", "Aviation Meteorology" and "Methods and Devices of Hydrometeorological Measurements".

Field of study "Hydrometeorology"
Duration: 5 years
Award: Diploma Specialist
Speciality: Meteorology (code 02060265)
Specialization:
Hydrometeorological Information Measuring Systems and Network Technologies

Course	Total	In-door	Lectures	Semesters	Completion requirements
Russian Language and Standard of Speech	134	54	18	1	Test
History of Russia	144	84	50	1 — 2	Test, Examination
* Computer Organization and Programming	188	118	68	1 — 2	Examinations
Chemistry	141	86	52	1 — 2	Examinations
Engineering Drawing	143	68	34	1 — 2	Tests
English Language	316	136	-	1 — 4	Tests, Examination
Physics	396	306	136	1 — 4	Test, Examinations
Mathematics	658	358	186	1 — 4	Examinations, Test
Physical Education	406	406	-	1 — 8	Tests
Geophysics	98	48	32	2	Test
Theoretical Mechanics	66	36	18	3	Test
Electrotechnics and Electronics	145	72	54	3	Examination
Philosophy	144	84	50	3 — 4	Test, Examination
* Physics of the Atmosphere, Ocean and Inland Water	208	188	102	3 — 4	Examinations
Physics of Oceans	42	32	16	4	Test
Materials Science	66	16	16	4	Test
Mechanics of Fluid and Gases	304	64	32	4	Test
Methods and Devices of Hydrometeorological Measurements	210	200	100	4 — 6	Examinations
Elective Natural Science Courses	246	36	36	5	Test
Physics of Inland Waters	46	36	36	5	Test
Hydraulics	123	18	18	5	Test
Metrology, Standardization and Certification	69	54	36	5	Test
Theory of Probability and Mathematical Statistics	112	72	36	5	Examination
Calculus Mathematics	94	54	36	5	Examination

Dynamic Meteorology	87	72	54	5	Examination
Electro and Radio Measurements in Hydrometeorology	74	54	36	5	Examination
Economics	184	84	50	5 — 6	Test, Examination
Statistical Processing Methods of Hydrometeorological Information	144	64	32	6	Test
Space Meteorology	92	32	16	6	Test
Synoptic Meteorology	188	48	32	6	Test
Science of Law	132	32	16	6	Test
Climatology	78	48	32	6	Examination
Remote Soundings of the Atmosphere	142	102	68	6 — 7	Test, Examination
Meteorological Radar Equipment	167	72	36	6 — 7	Examinations
Safety of Vital Activity	99	54	18	7	Test
Methods and Means for Current Forecasting	110	90	36	7	Test, Examination
Methods of Environment Sounding	152	72	36	7	Examination
Hydrodynamic Forecasting	95	60	30	7	Examination
Elective Humanitarian Courses	286	66	66	7 — 8	Tests
Elective Professional Courses	76	66	66	7 — 8	Tests
Geographical Information Systems	70	45	30	8	Test
Control of Environment Pollution	70	45	30	8	Test
Mesoscale Meteorology and Now-casting	70	45	15	8	Test
Microprocessor-based Systems in Hydrometeorology	79	54	36	8	Test
GIS	65	45	30	8	Test
Control of Environmental Pollution	95	45	30	8	Examination
Aviation Meteorology	70	60	30	8	Examination
Ecology	75	60	30	8	Examination
Exploitation of Hydrometeorological Systems	203	183	66	8 — 9	Tests, Examinations
Natural Disasters Forecasting	72	54	36	9	Test
Introduction to Experiment Theory	74	54	36	9	Test
Mathematical Modelling in Ecology	92	72	36	9	Test
Impact on the Atmospheric Phenomena and Processes	84	54	36	9	Examination
Economic Meteorology	74	54	36	9	Examination
Special Methods of Atmosphere	56	36	36	9	Examination

Sounding					
Technical Means for Hydrometeorlogical Information Collection and Transport	110	90	36	9	Examination
TOTAL hours (Meteorology)	7275	3699	1840	-	-

Supplements

There are carried out also training practices on "Computer classes" in 2nd semester for two weeks, on "Physics of the Atmosphere, Inland Water and Ocean" in 4th semester for five, on "Atmospheric Processes Observations" in 6th semester for 5 weeks. All students should attend the duties at Educational Meteorological Station in 3-4th semesters, in Educational Weather Bureau in 6-8th semesters, at Upper-air (aerologic) and Weather Radar Stations in 6-7th semesters. Students have a self-work in 10th semester before presentation of their Specialist research projects.

Practical training is carried out in 8th semester for five weeks and in 10th semester for four weeks.

Students should pass the term papers on Courses marked with (*) in table, two term papers for student choice and one on the graduate qualification work in addition to Course work on Specialist research project.

State Examination is passed on "Introduction to Experiment Theory", "Aviation Meteorology", "GIS", "Physical Aspects of impact on Atmospheric Processies", "Physics of the Atmosphere, Ocean and Inland Water", "Methods of Environmental Soundings", "Remote Soundings of the Atmosphere", "Methods and Devices of Hydrometeorological Measurements".

Faculty of Hydrology

Field of study "Hydrometeorology"
Duration: 4 years
Award: Bachelor of Science (code 02060062)
Specialization: Hydrology

Course	Total	In-door	Lectures	Semesters	Completion requirements
Engineering Drawing	56	36	18	1	Test
Introduction into Speciality	46	36	18	1	Test
* Computer Organization and Programming	188	118	68	1 — 2	Test, Examination
Geophysics	194	104	52	1 — 2	Examination, Test
Chemistry	156	86	52	1 — 2	Examinations
History of Russia	154	84	50	1 — 2	Test, Examination
Mathematics	394	294	156	1 — 3	Examinations
Physics	424	324	136	1 — 4	Examinations
English Language	316	136	-	1 — 4	Tests, Examination
Physical Education	394	394	-	1 — 8	Tests
Russian Language and Standard of Speech	82	32	16	2	Test
Hydrochemistry	96	36	18	3	Test
Theoretical Mechanics	94	54	36	3	Test
Calculus Mathematics	114	54	36	3	Test
Philosophy	154	84	50	3 — 4	Test, Examination
Geodesy	192	102	52	3 — 4	Examinations
Hydrogeology	122	102	68	3 — 4	Examinations
Mechanics of Fluid and Gases	58	48	32	4	Test
Electrotechnics and Electronics	94	64	48	4	Test
Theory of Probability and Mathematical Statistics	98	48	32	4	Test
Mathematical Physics	98	48	32	4	Test
Elective Natural Science Courses	184	54	18	5	Test
Water-Balance Studies	58	18	18	5	Test
Hydrometeorological Informational Systems	106	36		5	Test
Science of Materials	76	36	18	5	Examination
Physics of the Atmosphere	212	72	36	5	Examination

Climatology	94	54	36	5	Examination
* Physics of Inland Waters	82	72	18	5	Examination
Hydraulics	130	110	46	5 — 6	Examinations
Economics	148	78	46	5 — 6	Test, Examination
* Methods and Devices of Hydrometeorological Measurements	194	174	78	5 — 7	Examinations, Test
Oceanology	196	26	26	6	Test
Science of Low	58	28	14	6	Test
Safety of Vital Activity	72	42	14	6	Test
Analysis and Statistical Methods of Processing of Hydrometeorological Information	196	56	28	6	Test
Elective Humanitarian Courses	251	81	54	6, 8	Tests
Continental Hydrology	190	120	60	6 — 7	Test, Examination
Modelling of Hydrological Processes	130	120	30	6 — 7	Examinations
Elective Professional Courses	192	32	32	7	Test
Metrology, Standardization and Certification	46	16	16	7	Test
Biology and Introduction to Ecology	82	32	16	7	Test
Hydrological Laboratory Modelling	26	16		7	Test
Hydrotechnics and Melioration	94	64	16	7	Examination
Political Science	88	48	32	7	Examination
Hydrological Computations	136	116	58	7 – 8	Examinations
Economics of Environmental Resource Management	69	39	26	8	Test
Psychology and Pedagogics	56	26	26	8	Test
Contemporary Methods of Processing for Hydrological Information	53	13	13	8	Test
Introduction to Hydrological Processes Management	72	52	26	8	Test
Hydrological Forecasting	72	52	26	8	Examination
Dynamics of Watercourses and Processes	72	52	26	8	Examination
Hydrometeorological Aspects of Environment Preservation	189	39	26	8	Examination
TOTAL hours	6856	4058	1849	-	-

Supplements

There are carried out training practices on "Geophysics" in 2nd semester for one week, on "Physics of Inland Waters" in 6th semester for two weeks, a field works in 4th semester on "Geodesy" for 4.5 weeks and "Hydrogeology" for 1.5 week, on "Methods and Devices of Hydrometeorological Measurements" in 5th semester for two weeks in addition to a practical training in 6th semester for 5.5 weeks.

Students should pass term papers on Courses marked with (*) in table and on "Ecology" in addition to course work on Bachelor research project.

State Examination is passed on "Hydrological Computations", "Continental Hydrology", " Methods and Devices of Hydrometeorological Measurements", "Hydrological Forecasting".

Field of study "Hydrometeorology"
Duration: 2 years
Award: Master of Science (code 02060068)
Specializations: Reservoir Hydrology,
Channel Processes,
Hydrological Forecasting,
Water Recourses Conservation

Course	Total	In-door	Lectures	Semesters	Completion requirements
Information Measuring Systems in Hydrometeorology	54	54	36	9	Test
Philosophy	54	54	36	9	Examination
Advanced Physics of the Atmosphere, Inland Waters and Oceans	54	54	36	9	Examination
Aerospace Sensing of the Environment	54	54	36	9	Examination
English Language	140	140	140	9 — 10	Test, Examination
Hydrodynamic Modelling of Natural Processes	51	51	34	10	Test
Economics of Environmental Resource Management	54	54	36	11	Test
Special Courses for studying "Reservoir Hydrology"					
Inland Reservoir Hydrology	72	72	36	9	Examination
Mooring of Lakes and Reservoirs	51	51	34	10	Test
Dynamic Processes in Reservoirs	51	51	34	10	Examination
Forecasting of Water and Ice Regimes of Lakes and Reservoirs	36	36	18	11	Test
Hydrological Constructions	72	72	36	11	Examination
Hydrological Operative Information Supply for Reservoir Exploitation	54	54	36	11	Examination
Special Courses for studying "Channel Processes"					
Self-Regulating System "Basin - Stream - Channel"	72	72	36	9	Test
Erosion Processes Studies at Drainage Area	34	34	17	10	Test
Physical Modelling of Channel Processes	68	68	34	10	Test
Hydraulic Resistance of Channels	68	68	34	10	Examination
Flood Plains of Lowland Rivers (morphology and hydrology)	54	54	36	11	Examination
Ecological Problems of Channel Processes	36	36	18	11	Examination

Channel Transformation	36	36	36	11	Examination
Special Courses for studying "Hydrological Forecasting"					
Advanced Forecasting of Lowland River Runoff	54	54	36	9	Test
Statistical and Regime Control of Initial Information of Forecasting Methods	70	70	35	9 — 10	Examination
Advanced Forecasting of Mountain River Runoff	51	51	34	10	Test
Advanced Forecasting of Ice Phenomena	34	34	17	10	Test
Forecasting of Channel and Erosion Processes	70	70	35	10 — 11	Test, Examination
Advanced Modelling of Hydrophysics Processes in Hydrophysics	54	54	36	11	Examination
Numerical Methods in Hydrology	54	54	36	11	Examination
Special Courses for studying "Water Resources Conservation"					
World and RF Water Resources Use and Hydroecological Regulation	36	36	18	9	Test
Interaction of Surface and Underground Waters	54	54	36	9	Test
Mathematical Methods of Analysis in Hydrology	51	51	34	10	Test
Hydrological and Ecological Monitoring of Water Bodies	51	51	34	10	Test
Advanced Theory and Experience of Hydrological Calculations	68	68	34	10	Examination
Ecological State and Monitoring of Underground Waters	54	54	36	11	Test
Advanced Water Resource Management and Computations	72	72	36	11	Examination
TOTAL hours	1105	875	610	-	-
Supplements There is carried out also practice teaching in 10th semester for four weeks as well as self-work before presentation of Master research project.					

Field of study "Hydrometeorology"
Duration: 5 years
Award: Diploma Specialist
Speciality: Hydrology (code 02060165)

Course	Total	In-door	Lectures	Semesters	Completion requirements
Engineering Drawing	156	36	18	1	Test
Introduction to Speciality	86	36	18	1	Test
History of Russia	154	84	50	1 — 2	Test, Examination
* Computer Organization and Programming	188	118	68	1 — 2	Test, Examination
Geophysics	164	104	52	1 — 2	Examination, Test
Chemistry	156	86	52	1 — 2	Examinations
Mathematics	394	294	156	1 — 3	Examinations
Physics	424	324	136	1 — 4	Examinations
English Language	316	136	-	1 — 4	Tests, Examination
Physical Education	394	394	-	1 — 8	Tests
Russian Language and Standard of Speech	82	32	16	2	Test
Hydrochemistry	96	36	18	3	Test
Theoretical Mechanics	144	54	36	3	Test
Calculus Mathematics	114	54	36	3	Test
Philosophy	154	84	50	3 — 4	Test, Examination
Hydrogeology	182	102	68	3 — 4	Examinations
Geodesy	182	102	52	3 — 4	Examinations
Theory of Probability and Mathematical Statistics	98	48	32	4	Test
Mechanics of Fluid and Gases	138	48	32	4	Test
Electrotechnics and Electronics	84	64	48	4	Test
Mathematical Physics	98	48	32	4	Test
Science of Materials	56	36	18	5	Test
Elective Natural Science Courses	184	54	18	5	Test
Water Balance Studies	58	18	18	5	Test
Climatology	74	54	36	5	Test
Water Cadastre and Geoinformational Systems	64	54	18	5	Test
Physics of the Atmosphere	112	72	36	5	Examination
* Physics of Inland Waters	112	72	18	5	Examination

Economics	148	78	46	5 — 6	Test, Examination
Hydraulics	140	110	46	5 — 6	Examinations
* Methods and Devices of Hydrometeorological Measurements	204	174	78	5 — 7	Examinations, Test
Analysis and Statistical Methods of Processing of Hydrometeorological Information	156	56	28	6	Test
Modelling of Hydrological Processes	92	42	14	6	Examination
Safety of Vital Activity	102	42	14	6	Test
Science of Law	58	28	14	6	Test
Elective Humanitarian Courses	251	81	54	6, 8	Tests
* Hydrology	200	120	60	6 — 7	Test, Examination
Hydrological Laboratory Modelling	36	16	-	7	Test
Metrology, Standardization and Certification	56	16	16	7	Test
Ecology an Control of Inland Waters Quality	82	32	16	7	Test
Elective Professional Courses	62	32	32	7	Test
Political Science	88	48	32	7	Examination
* Hydrological Computations	104	64	32	7	Examination
Stochastic Modelling of Hydrological Processes	94	64	16	7	Examination
Hydrotechnics and Melioration	94	64	16	7	Examination
Economics of Environmental Resource Management	69	39	26	8	Test
Psychology and Pedagogy	56	26	26	8	Test
Aspects of Hydrological Processes Management	102	52	26	8	Test
Contemporary Methods of Processing for Hydrological Information	53	13	13	8	Test
Dynamics of Watercourses and Processes	72	52	26	8	Examination
Protection and Monitoring of Surface Inland Waters	89	39	26	8	Examination
River Run-off	82	52	26	8	Examination
* Hydrological Forecasting	204	124	62	8 — 9	Examinations
Economics of Hydrometeorological Information Supply for	66	36	18	9	Test

National Economy					
Hydrotechnics	74	54	36	9	Test
Assessment of Hydrological Regime Modification under Anthropogenic Impact	56	36	36	9	Test
Assessment and Forecasting of Channel Flow Process under Anthropogenic Impact	56	36	36	9	Test
Channel Processes	120	90	36	9	Examination
Water Management	84	54	36	9	Examination
Elements of Infinite Modelling of Hydrological Processes	38	18	18	9	Examination
TOTAL hours	7666	4476	2164	-	-

Supplements

There are carried out training practices on "Geophysics" in 2nd semester for one week, on "Physics of Inland Waters" in 6th semester for two weeks, a field works in 4th semester on "Geodesy" for 4,5 weeks and "Hydrogeology" for 1,5 week, on "Methods and Devices of Hydrometeorological Measurements" in 5th semester for two weeks and in 6th semester for two weeks in addition to a practical training in 8th semester for four weeks and in 10th semester for three weeks. In 10th semester students has a self-work as well before presentation of their Specialist research projects.

Students should pass term papers on Courses marked with (*) in table in addition to course work on Specialist research project.

State Examination is passed on "Hydrological Computations", "Hydrology of Inland Waters", " Methods and Devices of Hydrometeorological Measurements", "Hydrological Forecasting".

Faculty of Oceanography

Field of study "Hydrometeorology"
Duration: 4 years
Award: Bachelor of Science (code 02060062)
Specialization: Oceanography

Course	Total	In-door	Lectures	Semesters	Completion requirements
Russian Language and Standard of Speech	96	36	-	1	Test
Geophysics	100	54	36	1	Examination
Chemistry	200	105	70	1 — 2	Test, Examination
History of Russia	152	87	52	1 — 2	Test, Examination
* Computer Organization and Programming	207	122	70	1 — 2	Examination, Test
Mathematics	600	300	159	1 — 3	Examinations
English Language	338	138	-	1 — 4	Tests, Examination
Physics	410	311	138	1 — 4	Examinations
Physical Education	412	412	-	1 — 8	Tests
Engineering Drawing	150	34	17	2	Test
Maritime Business	53	51	34	2	Test
Electrotechnics and Electronics	150	72	54	3	Test
Introduction to Hydrochemistry	80	54	36	3	Test
Theoretical Mechanics	70	54	36	3	Test
* Oceanography	250	140	70	3 — 4	Examinations
* Methods and Devices of Hydrometeorological Measurements	200	136	68	3 — 4	Test, Examination
Philosophy	154	84	50	3 — 4	Test, Examination
Calculus Mathematics	105	48	32	4	Test
Geodesy and Cartography	200	48	32	4	Test
Mechanics of Fluid and Gases	314	64	32	4	Test
* Physics of the Atmosphere, Ocean and Inland Water	171	171	102	4 — 6	Test, Examination
Theory of Probability and Mathematical Statistics	100	54	36	5	Test
Mathematical Physics and Methods of Functional Analysis	150	72	36	5	Test

*Methods of Statistical Processing for Hydrometeorological Information	200	140	70	5 — 6	Examinations
Information Measuring Systems in Hydrometeorology	150	122	70	5 — 6	Test, Examination
Economics	187	87	52	5 — 6	Test, Examination
* Physics of Oceans	195	165	66	5, 8	Examinations
Geophysical Hydrodynamics	100	51	34	6	Test
Ocean Chemistry	70	51	34	6	Test
Safety of Vital Activity	100	51	17	6	Test
* Ocean Dynamics	200	140	70	6 — 7	Examinations
Elective Humanitarian Courses	262	32	-	6, 8	Tests
Ecology	150	54	36	7	Test
Regional Oceanography	80	72	36	7	Examination
Mathematical Methods of Oceanography Problems Solving	72	72	36	7	Test
Theory of Near-surface Layer	80	72	36	7	Examination
Remote Measurements in Hydrometeorology	60	54	36	7	Test
Science of Law, Psychology and Pedagogics	200	36	18	7 — 8	Tests
Engineering Oceanography	81	81	48	7 — 8	Test Examination
Economics of Hydrometeorological Information Supply	66	60	30	8	Examination
* Hydrometeorological Aspects of Environmental Pollution Control	197	45	30	8	Test
Introduction to Fishery Oceanography	76	60	30	8	Test
Ecosystems Modelling	48	30	15	8	Test
Marine Hydrological Forecasting	48	30	15	8	Test
TOTAL hours	6826	3986	1871	-	-

Supplements

There are carried out also training practices on "Maritime Business" in 2nd semester for two weeks, on "Methods and Devices of Hydrometeorological Measurements" in 4th semester for one week, on "Hydrometeorological Measurements and Introductory Oceanography" in 4th semester for four weeks as well as a practical training at Educational Bureau of Marine Forecasts (field work) in 8th semester and practical training on specialty in 6th semester for five weeks.

Students should pass term papers on Courses marked with (*) in table in addition to course work on Bachelor research project.

State Examination is passed on "Physics of the Atmosphere, Inland Water and Ocean", "Oceanography" "Land Hydrology" and "Methods and Devices of Hydrometeorological Measurements".

Field of study "Hydrometeorology"
Duration: 2 years
Award: Master of Science (code 02060068)
Specializations: Technical Oceanography,
Fishery Oceanography,
Physical Oceanography

Course	Total	In-door	Lectures	Semesters	Completion requirements
Introduction to Remote Sensing Results Subject Processing	72	36	18	9	Test
Philosophy	184	54	36	9	Examination
Interaction between Oceans and the Atmosphere	121	72	36	9	Examination
Geographical Information Systems	103	54	36	9	Examination
Modelling of Natural Systems	200	105	70	9 — 10	Test, Examination
English Language	180	140	-	9 — 10	Examination, Test
Theory of Forecasting	220	105	70	9 — 10	Examinations
Introduction to Marketing	72	36	18	11	Test
Intellectual Property	76	36	18	11	Test
Special Courses for studying "Technical Oceanography"					
Technical Oceanography	213	213	159	9 — 11	Tests, Examination
Cosmogeophysical Factors of Biosystems Ecology	177	177	124	9 — 11	Tests Examination
Underwater Research Systems	51	51	34	10	Test
Marine Technologies	105	105	70	10 — 11	Test, Examination
Special Courses for studying "Fishery Oceanography"					
Fishery Oceanography	54	54	36	9	Test
Theory of Marine Ecosystem Modelling	54	54	36	9	Test
Introduction to Aquaculture	36	36	18	9	Test
Biogeography	51	51	34	10	Test
Economics of Oceanographic Information Supply	51	51	34	10	Examination
Advanced Multivariate Analysis	105	105	70	10 — 11	Test, Examination
Information Supply for Fishery Forecasting	54	54	36	11	Test
Strategic Management Models	54	54	36	11	Test
Modelling of Environmental Modification under	90	90	54	11	Examination

Anthropogenic Impact					
Special Courses for studying "Physical Oceanography"					
Shelf Oceanography	36	36	18	9	Test
Experimental Oceanography	51	51	34	10	Tests
Advanced Multifactor Analysis	51	51	34	10	Examination
Thermohydrodynamics	106	106	53	10 — 11	Test, Examination
Advanced Regional Oceanography	54	54	36	11	Test
Front and Its Modelling	54	54	36	11	Test
Ice Studies	72	72	36	11	Examination
Laboratory Modelling of Oceanographic Processes	72	72	36	11	Examination
TOTAL hours	1670	1176	660	-	-
Supplements Practice teaching is also carried out in 10th semester for two weeks as well as self-work before presentation of Master research project.					

Field of study "Hydrometeorology"
Duration: 5 years
Award: Diploma Specialist
Speciality: Oceanography (code 02060365),
Specializations: Fishery Oceanography,
Technical Oceanography,
Physical Oceanography

Course	Total	In-door	Lectures	Semesters	Completion requirements
Russian Language and Standard o Speech	96	36	-	1	Test
Geophysics	100	54	36	1	Examination
* Computer Organization and Programming	207	122	70	1 — 2	Examination, Test
Chemistry	155	105	70	1 — 2	Test, Examination
History of Russia	152	87	52	1 — 2	Test, Examination
Mathematics	600	300	159	1 — 3	Examinations
Physics	460	311	138	1 — 4	Examinations
English Language	338	138	-	1 — 4	Tests, Examination
Physical Education	414	414	-	1 — 8	Tests
Maritime Business	70	68	34	2	Test
Engineering Drawing	150	34	17	2	Test
* Oceanography	250	136	68	3 — 4	Examinations
Electrotechnics and Electronics	150	72	54	3	Test
Introduction to Hydrochemistry	80	54	36	3	Test
Theoretical Mechanics	70	54	36	3	Test
* Methods and Devices of Hydrometeorological Measurements	200	136	68	3 — 4	Test, Examination
Philosophy	154	84	50	3 — 4	Test, Examination
Mechanics of Fluid and Gases	314	64	32	4	Test
Geodesy and Cartography	60	48	32	4	Test
Calculus Mathematics	100	48	32	4	Test
* Physics of the Atmosphere, Ocean and Inland Water	171	171	102	4 — 6	Test, Examinations
Theory of Probability and Mathematical Statistics	105	54	36	5	Test
Mathematical Physics and Methods of Functional Analysis	150	72	36	5	Test

* Methods of Statistical Processing for Hydrometeorological Information	150	140	70	5 — 6	Examinations
Information Measuring Systems in Hydrometeorology	150	122	70	5 — 6	Examination, Test
Economics	187	87	52	5 — 6	Test, Examination
Physics of Oceans	200	170	68	5, 8	Examinations
Ocean Chemistry	70	51	34	6	Test
Geophysical Hydrodynamics	130	51	34	6	Test
Safety of Vital Activity	101	51	17	6	Test
* Ocean Dynamics	200	140	70	6 — 7	Examinations
Elective Humanitarian Courses	263	33	-	6, 8	Tests
Elective Courses: Science of Law, Psychology and Pedagogy	200	36	18	7, 8	Tests
Mathematical Methods of Oceanography Problems Solving	72	72	36	7	Test
Remote Measurements in Hydrometeorology	60	54	36	7	Test
Ecology	86	54	36	7	Test
Materials Science	70	36	18	7	Test
Regional Oceanography	80	72	36	7	Examination
Theory of Near-Surface Layer	80	72	36	7	Examination
Experimental Oceanography	70	64	32	8	Test
Economics of Hydrometeorological Information Supply	70	64	32	8	Examination
Marine Hydrological Forecasting	60	32	16	8	Test
Control of Environment Pollution	60	48	32	8	Test
Introduction to Fishery Oceanography	70	64	32	8	Test
Modelling of Ecosystems	40	32	16	8	Test
GIS in Hydrometeorology	70	54	36	9	Examination
Introduction to Subject Processing of Remote Sensing Results	50	36	18	9	Test
Interaction between Oceans and the Atmosphere	150	72	36	9	Examination
Specialized Courses for studying "Fishery Oceanography"					
Fishery Oceanography	70	54	36	9	Examination
Antropogenic Impact on the Natural Ecosystems	70	54	36	9	Test

Elective Courses: Economics of Oceanographic Information Supply, Introduction to Aquaculture	70	54	36	9	Test
Specialized Courses for studying "Technical Oceanography"					
Marine Technologies	100	54	36	9	Test
Specialized Measuring Methods	96	72	54	9	Examination
Intellectual Property	86	72	54	9	Test
Specialized Courses for studying "Physical Oceanography"					
Introduction to Marketing	72	36	18	9	Examination
Elective Courses: Oceanography of Shelf, Structural Analyses of Tides and Tidal Energy	100	54	36	9	Test
TOTAL hours	7298	4239	1981	-	-

Supplements

There are carried out also training practices on "Maritime Business" in 2nd semester for two weeks, on "Methods and Devices of Hydrometeorological Measurements" in 4th semester for one week, on "Hydrometeorological Measurements and Introductory Oceanography" in 4th semester for four weeks as well as field works at Educational Bureau of Marine Forecasts in 8 – 9th semester and practical training in 6th semester for five weeks. In 10th semester students have a self-work before presentation of their Specialist research project.

Students should pass term papers on Courses marked with (*) in table in addition to course work on Specialist research project.

State Examination is passed on "Physics of the Atmosphere, Inland Water and Ocean", "Dynamics of Ocean", "Marine Hydrological Forecasting" as well as on Specialized Courses.

Field of study "Shipboard Equipment"
Duration: 5 years
Award: Diploma Specialist
Speciality: Marine Information Systems and Equipment (code 18030465)

Course	Total	In-door	Lectures	Semesters	Completion requirements
Russian Language and Standard of Speech	100	36	-	1	Test
Computer Organization and Programming	130	90	54	1	Test, Examination
Chemistry	130	105	70	1 — 2	Test, Examination
History of Russia	162	87	52	1 — 2	Test, Examination
English Language	340	159	-	1 — 3	Tests, Examination
Mathematics	440	300	159	1 — 3	Examinations
Physics	600	315	140	1 — 4	Examinations
Physical Education	416	416	-	1 — 8	Tests
Engineering Drawing	80	34	17	2	Test
Maritime Business	80	51	34	2	Test
* Methods and Means for Programming	200	140	70	2 — 3	Test, Examinations
Electro and Radio Elements and Materials	160	72	54	3	Test
Theory of Probability and Mathematical Statistics	70	54	36	3	Test
Theoretical Mechanics	150	54	36	3	Test
Theory of Electrical Circuits	220	140	88	3 — 4	Examination, Test
Philosophy	150	87	52	3 — 4	Test, Examination
Mechanics of Fluids and Gases	150	68	34	4	Test
Introductory Electronics	80	51	34	4	Test
* Computer Graphics	150	51	34	4	Test
Discrete Mathematics	120	54	36	5	Examination
Theory of Information	51	51	34	4	Examination
Calculus Mathematics	70	51	34	4	Examination
Introductory Meteorology	82	72	36	5	Test
Statistical Methods in Information Technologies	120	90	54	5	Examination
Electrodynamics and Radiowaves Propagation	150	105	70	5 — 6	Test, Examination

Economics	180	87	52	5 — 6	Test, Examination
* Information-control Technologies in Theory of Connection	270	140	88	5 — 6	Examination, Test
Operational Systems and Computer Networks	100	85	68	6	Examination
Introductory Oceanography	120	105	70	5 — 6	Tests
* Electronic Circuit Technique in Marine Information Systems	300	140	105	5 — 6	Examinations, Test
Safety of Vital Activity	140	51	17	6	Test
Elective Humanitarian Courses	260	32	-	6, 8	Tests
Metrology, Standardization and Certification	100	54	36	7	Test
Constructing and Testing of Information Systems	150	72	54	7	Test
Science of Law	100	36	18	7	Test
Ecology	70	54	36	7	Test
Control Systems of Data Base	100	72	36	7	Test, Examination
Marine Hydrometry	140	117	66	7 — 8	Examination, Test
Marine Information Systems	150	99	84	7 — 8	Examinations
Microprocessors	200	114	66	7 — 8	Examination, Test
Psychology and Pedagogy	100	32	30	8	Test
Information Digital Processing	150	75	45	8	Test, Examination
GIS Technologies	90	60	45	8	Examination
Methods of Ocean Remote Sensing	180	117	99	8 — 9	Examinations, Test
Economics of Enterprise Management	100	72	54	9	Test
Automatic Machinery of Marine Information Systems	200	90	54	9	Test, Examination
Methods and Means of Information Protection	70	54	36	9	Test
System Modelling	70	54	36	9	Test, Examination
Intelligent Information Systems	100	90	54	9	Test, Examination
TOTAL hours	7425	4219	2477	-	-

Supplements
There is carried out training practice on "Maritime Business" in 2nd semester for three weeks in addition to practical training on "Computational Calculations" in 4th semester for four weeks, in 6th, 8th and 10th semesters for four weeks. In 10th semester students have a self-work before presentation of their Specialist research projects. Students should pass also term papers on Courses marked with (*) in table and on the chosen graduation specialization in addition to course work on Specialist research projects. State Examination is passed on "Marine Information Systems", "Methods of Ocean Remote Sensing", "Geographical Information Systems", "Methods of Signals Digital Processing".

Field of study "Information Security"

Duration: 5.5 years

Award: Diploma Specialist

Speciality: Information Security of Telecommucation Systems (code 09010665)

Course	Total	In-door	Lectures	Semesters	Completion requirements
Russian Language and Standard of Speech	100	36	-	1	Test
Computer Organization and Programming	200	90	54	1	Test, Examination
History of Russia	162	87	52	1 — 2	Test, Examination
Chemistry	200	105	70	1 — 2	Test, Examination
Mathematics	530	300	159	1 — 3	Examinations
English Language	340	159	-	1 — 3	Tests, Examination
Physics	550	315	140	1 — 4	Examinations
Physical Education	416	416	-	1 — 8	Tests
Engineering Drawing	80	34	17	2	Test
Maritime Business	68	68	34	2	Test
* Methods and Means for Programming	250	140	70	2 — 3	Test, Examinations
Theory of Probability and Statistics	100	54	36	3	Test
Electro and Radio Elements and Materials	100	72	54	3	Test
Philosophy	150	87	52	3 — 4	Test, Examination
Theory of Electrical Circuits	250	140	88	3 — 4	Test, Examination
* Computer Graphics	100	51	34	4	Test
Introduction to Electronics	80	51	34	4	Test
Information Technologies	80	68	34	4	Test
Calculus Mathematics	120	51	34	4	Examination
Theory of Information	100	51	51	4	Examination
Hardware of Computational Techniques	100	51	34	4	Examination
Quantum and Optic Electronics	100	54	36	5	Test
Introductory Meteorology	72	72	36	5	Test
Discrete Mathematics	200	54	36	5	Examination
Statistical Methods in Information Technologies	200	72	54	5	Examination

Introductory Oceanography	138	105	70	5 — 6	Tests
Electrodynamics and Radiowaves Propagation	160	105	70	5 — 6	Test, Examination
Economics	180	87	52	5 — 6	Test, Examination
* Electronic Circuit Technique in Marine Information Systems	220	140	105	5 — 6	Examinations, Test
* Information-control Technologies in Theory of Connection	300	140	88	5 — 6	Examination, Test
Transmission of Discrete Messages	120	51	34	6	Test
Safety of Vital Activity	100	51	17	6	Test
Operational Systems and Computer Networks	150	85	68	6	Examination
Elective Humanitarian Courses	260	32	-	6, 8	Tests
Metrology and Electronic Radio Measurements in Telecommunication Systems	80	54	36	7	Test
Science of Law	100	36	18	7	Test
Control Systems of Data Base	100	72	36	7	Test, Examination
Ecology	100	54	36	7	Test
Introduction to Information Security	80	54	36	7	Examination
Hydrometeorological Information Measuring Systems	140	117	66	7 — 8	Test, Examination
Systems and Networks for Information Transmission	250	132	84	7 — 8	Test, Examinations
Microprocessors in Telecommunication Systems	120	114	66	7 — 8	Examination, Test
Psychology and Pedagogy	100	32	30	8	Test
Cryptographic Methods in Information Security	150	90	45	8	Test, Examination
Telecommunication Systems	100	60	60	8	Examination
Introduction to Management	80	72	54	9	Test
Projecting of Protected Telecommunication Systems	100	72	36	9	Test
System Modelling	80	54	36	9	Test, Examination
Soft hardware Means for Information Security Supply	100	72	36	9	Test, Examination
Intelligent Information Systems	150	90	54	9	Test, Examination
Information Security Law	100	72	36	9	Examination

Introduction to Protected Telecommunication Systems Technical Exploitation	100	45	30	10	Test
Technical Means and Methods in Information Protection	100	54	36	10	Test, Examination
GIS in Information-control Systems	110	62	45	10	Test, Examination
Digital Processing of Information	110	85	51	10	Test, Examination
Protected Corporative Networks	110	75	45	10	Test, Examination
TOTAL hours	8322	4620	2671	-	-

Supplements

There are held educational practice on "Maritime Business" in 2nd semester for three weeks in addition to practical trainings on "Numerical Computations" in 4th semester for four weeks in 6th and 8th semesters for four weeks, in 10th semester for two weeks and in 11th semester for four weeks. In 11th semester students have a self-work before presentation of their Specialist research projects.

Students should pass also term papers on Courses marked with (*) in table and on the chosen graduation specialization in addition to course work on Specialist research project.

State Examination is passed on "Theory of Electrical Circuits", "Systems and Networks for Information Transmission", "Cryptographic Methods in Information Security", "Soft hardware Means for Information Security Supply", "Technical Means and Methods in Information Protection".

Field of study "Management"
Duration: 5 years
Award: Diploma Specialist
Speciality: Management of Organization (code 08050765)
Specialization: Integrated Coastal Zone Management
Specialized Courses has got ECTS.

Course	Total	In-door	Lectures	Semesters	Completion requirements
Culture Studies	108	54	36	1	Test
Introduction in Specialization	72	36	36	1	Test
Russian Language and Standard of Speech	136	68	-	1 — 2	Tests
Russian History	144	84	50	1 — 2	Test, Examination
Concepts of Contemporary Natural Sciences	172	102	68	1 — 2	Examinations
Economic Theory	246	136	102	1 — 2	Examinations
* Computer Organization and Programming	154	118	68	1 — 2	Examinations
English Language	336	156	-	1 — 3	Tests, Examination
Mathematics	490	272	136	1 — 4	Examinations
Physical Educational	406	406	-	1 — 8	Tests
Psychology and Pedagogy	96	32	32	2	Test
Elective Humanitarian Courses	134	64	-	2, 4	Tests
Bibliography	70	36	36	3	Test
Meteorology	84	72	54	3	Test
Philosophy	122	54	36	3	Examination
Hydrology of River Mouth	102	102	68	3 — 4	Tests
Coastal Hydrometry	132	102	68	3 — 4	Test, Examination
* Oceanography	166	136	68	3 — 4	Examinations
Introduction to Hydrochemistry	100	48	32	4	Test
Ecology	84	48	32	4	Test
Science of Law	64	32	16	4	Test
Sociology	124	64	48	4	Examination
World Economics	152	72	54	5	Examination
Organizational Policy	144	54	36	5	Examination
Marketing	144	72	36	5	Examination

* Information Technologies (incl. GIS)	300	136	68	5 — 6	Tests
Finances and Credit	147	102	68	5 — 6	Test, Examination
Statistics	147	102	68	5 — 6	Test, Examination
* Introduction to Management	246	136	68	5 — 6	Examinations
Morphology and Lithodynamics	80	64	32	6	Test
Ecological Management	80	48	32	6	Test
Accounting	148	48	32	6	Test
Theory of Organization	152	64	32	6	Examination
Office Work	131	72	36	7	Test
Satellite Monitoring	70	60	30	7	Test
Introduction to Marine Engineering	82	72	36	7	Test
Coastal Law (ECTS 7.5)	96	54	36	7	Test
Water Resource Management	136	72	36	7	Test
* Public Relations	164	72	36	7	Examination
Administrational Decision Making	84	54	36	7	Examination
Innovational Management	154	72	54	7	Examination
Quality Management	126	72	36	7	Examination
* Economics of Coastal Zones (ECTS 7.5)	85	60	30	8	Test
Safety of Vital Activity	95	45	15	8	Test
Logistics	96	60	30	8	Examination
Contemporary Aspects of Economics	93	45	30	8	Examination
Economics of Hydrometeorlogical Information Supply	113	60	30	8	Examination
Strategic Management	124	60	30	8	Examination
Elective Specialized Courses	66	54	36	9	Test
ICM Planning Strategies (ECTS 9.0)	80	72	36	9	Test
* Coastal Policy (ECTS 9.0)	114	72	36	9	Test
Economic Law	182	72	36	9	Test
Management Systems Studies	134	72	36	9	Examination
Crisis-proof Management	122	72	36	9	Examination
Human Resource	124	54	36	9	Examination

Management					
TOTAL hours	7369	4224	2091	-	-

Supplements

There are carried out training practices on "Computer Organization and Programming" in 2nd semester for two weeks, "Coastal Hydrometry" in 4th semester for four weeks in addition to practical training on "Management" in 6th semester for four weeks, on Specialization in 10th semester for two weeks. In 10th semester students have a self-work before presentation of their Specialist research projects.

Students should pass also term papers on Courses marked with (*) in table in addition to course work on Specialist research project.

State Examination is passed on "Management", "Economic Theory", "Organization Theory", "Quality Management" and specialized courses.

Faculty of Ecology and Environmental Physics

Field of study "Physics"
Duration: 4 years
Award: Bachelor of Science (code 01070062)

Course	Total	In-door	Lectures	Semesters	Completion requirements
Culture Science	104	54	36	1	Test
Geology	94	68	34	1	Tests
Computer Organization and Programming	202	102	68	1 — 2	Tests
Chemistry	150	150	100	1 — 2	Test, Examinations
History of Russia	164	84	50	1 — 2	Test, Examination
* Biology	192	102	68	1 — 2	Examinations
Mathematics	802	492	254	1 — 4	Test, Examinations
* Physics	694	354	236	1 — 4	Tests, Examinations
English Language	336	136	-	1 — 4	Tests, Examination
Physical Education	396	336	-	1 — 6	Tests
Russian Language and Oral Presentation Skills	76	36	-	3	Test
Philosophy	104	54	36	3	Examination
Electrotechnics	76	36	36	3	Test
Theoretical Mechanics	202	102	68	3 — 4	Test, Examination
* Ecology	202	102	68	3 — 4	Examinations
Methods and Devices of Hydrometeorological Measurements	78	48	32	4	Test
Geophysics	62	32	16	4	Test
Physics of the Atmosphere and the Hydrosphere	186	96	64	4 — 5	Test, Examination
Statistical Hydromechanics	98	48	32	5	Test
Environmental Geochemistry	98	48	32	5	Test
Methods in Mathematical Physics	98	48	32	5	Examination
Introduction to Environmental Management	98	48	32	5	Examination
Economics	98	48	32	5	Examination

Electrodynamics	98	48	32	5	Examination
Processing Technique and Analysis of Ecological Information	94	64	64	5 — 6	Tests
Physical and Chemical Control Methods of Ecological Toxic Matters	78	48	32	6	Test
Quantum Physics	124	64	48	6	Test
Environmental Economics	62	32	32	6	Test
Thermodynamics and Statistical Physics	98	48	32	6	Examination
* Theory of Fluctuations and Waves	98	48	32	6	Examination
* Geophysical Hydrodynamics	196	96	64	6 — 7	Examinations
Physics of Condensed State	32	32	16	7	Test
Science of Law	72	32	16	7	Test
Safety of Vital Activity	78	48	16	7	Test
Geoecology	98	48	32	7	Examination
Geographical Information Systems	167	87	58	7 — 8	Tests
Man-caused Systems and Ecological Risk	117	87	58	7 — 8	Test, Examination
Preservation of the Environment	167	87	58	7 — 8	Test, Examination
Calculus Physics	200	100	58	7 — 8	Examinations
Theory of Electromagnetic Radiation Propagation in Gases	69	39	26	8	Test
Mathematical Modeling of Anthropogenic Impact on Water Ecosystems	82	52	26	8	Test
Mathematical Modeling of Air Pollution	82	52	26	8	Test
Legal Regulations of Nature Management	56	26	26	8	Test
Human Ecology	69	39	26	8	Test
Environmental Monitoring and Control Methods	69	39	26	8	Examination
TOTAL hours	7326	4076	2132	-	-

Supplements
There are carried out also field works on "Methods and Devices of Hydrometeorological Measurements" in 4th semester for five weeks in addition to a practical training in 6th semester for four weeks. Students should pass also term papers on Courses marked with (*) in table in addition to course work on Bachelor research project. State Examination is passed on "Ecology", "Theory of Fluctuations and Waves", " Geophysical Hydrodynamics " and " Statistical Hydromechanics ".

Field of study "Ecology and Environmental Management"
Duration: 4 years
Award: Bachelor of Science (code 02080062)
Specializations: Ecological Expertise,
Social Ecology

Course	Total	In-door	Lectures	Semesters	Completion requirements
Geology	104	54	36	1	Test
Geography	104	54	36	1	Examination
History of Russia	149	84	50	1 — 2	Test, Examination
Chemistry	240	150	100	1 — 2	Examinations, Test
* Biology	202	102	68	1 — 2	Examinations
Elective Humanitarian Courses	148	58	26	2, 8	Tests
* Computer Organization and Programming	211	136	68	1 — 3	Tests
Physics	218	208	104	1 — 3	Examinations
English Language	336	136	-	1 — 4	Tests, Examination
Mathematics	362	272	136	1 — 4	Examinations, Tests
Physical Education	426	336	-	1 — 6	Tests
Atmosphere Studies	148	48	32	2	Test
Methods and Devices of Hydrometeorological Measurements	89	54	36	3	Test
Biodiversity	46	36	18	3	Test
Philosophy	154	54	36	3	Examination
Landscape Studies	136	36	18	3	Examination
Soil Science	108	68	34	3 — 4	Test, Examination
* Ecology	192	102	68	3 — 4	Examinations
Geobotany	98	48	32	4	Test
Geophysics	102	32	16	4	Test
Applied Program System in Ecology	89	64	32	4	Test
Mathematics. Theory of Probability	98	48	32	4	Examination
Introduction to Cartography and Geodesy	150	80	48	4 — 5	Tests
Hydrometry	98	48	32	5	Test
Natural and Anthropogenic	98	48	32	5	Test

Atmospheric Chemistry					
Environmental Geochemistry	98	48	32	5	Test
Hydrosphere Science	156	96	64	5	Test Examination
* Introduction to Environmental Management	148	48	32	5	Examination
Economics	118	48	32	5	Examination
* Methods and Analysis of Processing for Geoecological Information	168	128	64	5 — 6	Examinations
Introduction to Hydrochemistry	144	64	32	6	Test
Environmental Management	152	32	32	6	Test
Sociology	118	48	32	6	Test
Ecological Cartography	98	48	32	6	Test
* Social Ecology	102	32	32	6	Examination
Geoecology	194	64	48	6	Examination
Hydrogeology	108	48	32	6	Examination
Environmental Protection	196	96	64	6 — 7	Test, Examination
Safety of Vital Activity	98	48	16	7	Test
Banks and Data Bases for Geoecology	94	64	32	7	Test
* Ecological Monitoring	94	64	32	7	Test
Science of Law	107	32	16	7	Test
Ecological Management	98	48	32	7	Examination
* Ecological State of Inland Water	68	48	32	7	Examination
Geographic Information Systems	147	87	58	7 — 8	Tests
Civil Engineering Constructions and Ecological Risk	147	87	58	7 — 8	Test, Examination
Introduction to Environmental Law	106	26	26	8	Test
Bioindication and Biotesting	69	39	26	8	Test
Psychology and Pedagogics	99	39	26	8	Test
Human Ecology	99	39	26	8	Examination
Specialized Courses for studying "Ecological Expertise"					
Methods of Field Ecological Investigations	78	48	32	6	Test
Engineering Ecology	68	48	32	7	Test
Ecological Regulation and Assessment of Natural Ecosystem Stability	59	39	26	8	Test
Mathematical Modelling of Anthropogenic Impact on the	49	39	26	8	Test

Atmosphere					
Mathematical Modelling of Anthropogenic Impact on Water Ecosystems	59	39	26	8	Test
Specialized Courses for studying "Social Ecology"					
Sustainable Development of Humanity	68	48	32	7	Test
Ecological Problems of the Russian Federation	78	48	32	7	Examination
Especially Protected Natural Territories	59	39	26	8	Test
Ecological Regional Geography	59	39	26	8	Test
European Ecological Law	59	39	26	8	Test
TOTAL hours (Ecological Expertise)	7228	3903	2082	-	-
TOTAL hours (Social Ecology)	7318	3903	2082	-	-

Supplements

There are carried out also training practices in 2nd semester on "Biology" for two weeks, on "Meteorological Measurements" for two weeks, on "Geology" for one week and on "Geodesy" for two weeks in 4th semester. Complex training practice on "Ecology" is carried out in 4th semester for four weeks in addition to a complex field practice on ecological investigations in 6th semester for two weeks.

Complex practical training practice on ecological research is carried out in 6th semester for four weeks.

Students should pass also term papers on Courses marked with (*) in table in addition to course work on Bachelor research project.

State Examination is passed on "Ecology", "Introduction to Environmental Management" and "Environmental Monitoring".

Field of study "Ecology and Natural Resource Management"
Duration: 2 years
Award: Master of Science (code 02080068)
Specialization: Geoecology,
Geoecological Monitoring,
Social Ecology

Course	Total	In-door	Lectures	Semesters	Completion requirements
Courses for studying "Geoecology" and "Geoecological Monitoring"					
Present Problems of Ecology and Natural Science	136	36	36	9	Test
Advanced Philosophy	104	54	36	9	Examination
Ecological Audit and Insurance	104	54	36	9	Examination
Geoecological Design and Expertise	90	54	36	9	Examination
English Language	240	140	-	9 — 10	Test, Examination
Hydrogen Energy and Ecology	91	51	34	10	Test
Computer Technology for Ecology and Nature Management	222	122	52	10 — 11	Test, Examination
Multivariate Statistical Analysis	202	122	52	10 — 11	Examinations
Reclamation and Utilization of Solid Domestic Waste	86	36	36	11	Test
Engineering for Environment Protection Operations	94	54	36	11	Test
Courses for studying "Social Ecology"					
Present Problems of Ecology and Natural Science	136	36	36	9	Test
Statistical Analyses and Forecast	102	72	36	9	Test
Advanced Philosophy	104	54	36	9	Examination
Sociology of Science	94	54	36	9	Examination
English Language	240	140	-	9 — 10	Test, Examination
Socio-ecological Problems of City	91	51	34	10	Test
International Organizations within Environment Protection	94	34	34	10	Examination
Computer Technology for Ecology and Nature Management	222	122	52	10 — 11	Test, Examination
Ecological Audit and Insurance	102	72	36	11	Examination
Ecological Policy and Sustainable Development	86	36	36	11	Test
Specialized Courses for studying "Geoecology"					

Ecological Chemistry and Toxicology	94	54	36	9	Test
Ecology and Evolution	94	54	36	9	Test
System Ecology	94	54	36	9	Examination
Medical Ecology	71	51	34	10	Test
Advanced Geoecology	54	34	34	10	Test
Dynamics of Animal Population under Anthropogenic Impact	74	54	36	11	Test
Specialized Courses for studying "Geoecological Monitoring"					
Introduction to Radioecology	94	54	36	9	Test
Geoecological Assessment of Territories	54	54	36	9	Test
Geoecological Monitoring	94	54	36	9	Examination
Analysis of Time Series	91	51	34	10	Test
Methods for Forecasting of Admixture Transfer in the Atmosphere	76	36	36	11	Test
Methods for Forecasting of Admixture Transfer in Water Bodies	76	36	36	11	Test
Specialized Courses for studying "Social Ecology"					
Ecological Pedagogics and Psychology	104	54	36	9	Examination
Nature and Civilization	54	34	17	9	Test
Medical Geography and Ecology	91	51	34	10	Test
Introduction to Marketing	98	68	34	10	Test
Economy of Social Sector	98	68	34	10	Examination
Public Relations	74	54	36	11	Test
TOTAL hours (Masters Degree in field of "Geoecology" or "Geoecological Monitoring")	4570	-	-	-	-
TOTAL hours ("Masters Degree in the field of "Social Ecology")	4534	-	-	-	-
Supplements Teaching practice is carried out also in 10th semester for two weeks as well as self-work before presentation of Master research project.					

Field of study "Ecology and Natural Resource Management"
Duration: 5 years
Award: Diploma Specialist
Speciality: Geoecology (code 02080465)
Specializations: Ecological Expertise,
Social Ecology
Training for 1-4 semesters is conducted in according to the BSc curriculum

Course	Total	In-door	Lectures	Semesters	Completion requirements
Geourbanistics	104	54	36	9	Test
Ecological Chemistry and Toxicology	114	54	36	9	Test
System Ecology	114	54	36	9	Test
Elective Courses	104	54	36	9	Test
Geoecological Designing and Expertise	144	54	36	9	Examination
Soil Ecology	104	54	18	9	Examination
Specialized Courses					
Ecological risk	66	36	36	9	Test
Natural and Cultural Heritage	94	54	36	9	Test
Ecological Parties and Organizations	94	54	36	9	Test
Engineering Ecological Investigations	130	90	54	9	Examination
Environmental Management	94	54	36	9	Examination
Utilization and Processing of Solid Domestic Wastes	76	36	36	9	Examination
TOTAL hours (taking into account Baccalaureate of Ecological Expertise)	1456	916	570	-	-
TOTAL hours (taking into account Baccalaureate of Social Ecology)	1339	775	494	-	-
Supplements In 10th semester there are a practical training on ecological research for four weeks and self-work before presentation of Specialist research project. State Examination is passed on "Geoecology", "Geoecological Designing and Expertise", "System Ecology".					

Field of study "Management"
Duration: 5 years
Award: Diploma Specialist
Speciality: Management of Organization (code 08050765)
Specialization: Management in Ecological Tourism

Course	Total	In-door	Lectures	Semesters	Completion requirements
Introduction in Specialty	84	54	36	1	Test
Computer Organization and Programming	138	118	68	1 — 2	Tests
Conception of Contemporary Natural Science	112	102	68	1 — 2	Tests
Russian Language and Standard of Speech	128	68	-	1 — 2	Tests
History of Russia	164	84	50	1 — 2	Test, Examination
Biology	202	102	68	1 — 2	Examinations
* Economic Theory	266	136	102	1 — 2	Examinations
Mathematics	372	272	136	1 — 4	Examinations
English Language	398	338	-	1 — 6	Tests, Examination
Physical Education	406	406	-	1 — 8	Tests
Psychology	98	48	32	2	Test
Geography	114	54	36	3	Test
Culture Science	104	54	36	3	Test
Philosophy	114	54	36	3	Examination
Ecology	84	54	32	3	Examination
* Ecological Man Physiology	180	100	68	3 — 4	Test, Examination
Animation and Excursion Service	98	48	32	4	Test
Study of Local Lore	79	51	34	4	Test
Geobotany	98	48	32	4	Test
Introduction to Management	234	64	32	4	Examination
Landscape Geography	132	32	16	4	Examination
Introduction to Sport and Sanitary Tourism	88	48	32	4	Examination
Organizational Policy	144	54	36	5	Test
* Geography of Resort Centers	75	45	30	5	Examination
Sociology	152	72	54	5	Examination
Introduction to Environmental Management	120	70	36	5	Examination
World Economics	142	72	36	5	Examination
Finances and Credit	149	99	66	5 — 6	Test,

					Examination
Statistics	159	99	66	5 — 6	Test, Examination
* Balneology	132	99	66	5 — 6	Test, Examination
Ecological Climatology	159	99	66	5 — 6	Test, Examination
Territorial Planning	75	45	30	6	Test
Recreation and Natural and Medicated Resource	98	48	30	6	Test
Organization Theory	130	60	30	6	Test
Economic Law	150	60	30	6	Test
Science of Law	106	36	18	7	Test
Public Relations and Advertising	142	72	36	7	Test
Logistics	132	72	36	7	Test
Safety of Vital Activity	104	54	18	7	Test
Marketing	172	72	36	7	Examination
Innovational Management	132	72	36	7	Examination
Managerial Decision Making	94	54	36	7	Examination
* Management of Sanatorium-and-Spa Business	182	102	68	7 — 8	Test, Examination
Accounting	148	48	32	8	Test
* Management Documentation	108	48	32	8	Test
Tourist Industry in Health Resort Business	98	48	32	8	Test
Organization of Hotel and Restaurant Service	78	48	32	8	Test
Strategic Management	88	48	32	8	Examination
Quality Management	78	48	32	8	Examination
Information Technologies	132	72	36	9	Test
Resort Regional Geography	84	54	36	9	Test
Natural and Cultural Heritage	86	36	36	9	Test
Invalid Food	84	54	36	9	Test
Management Systems Studies	132	72	36	9	Examination
Crisis-proof Management	132	72	36	9	Examination
Human Resource Management	94	54	36	9	Examination
Medical Geography	94	54	36	9	Examination
TOTAL hours	7878	4086	1978	-	-

Supplements

There are carried out also training practices on "Biology" in 2nd semester for two weeks, on "Landscape and Local lore Study" in 4th semester for two weeks, on "Sport and Sanitary Tourism" in 4th semester for four weeks, on "Medicinal and Sanitary Tourism" in 6th semester for four weeks in addition to a practical work in 8th semester for four weeks, practical training for two weeks and self-work in 10th semester before presentation of Specialist research project.

All students should attend duties at tourist bureau during the period 3 – 8th semesters.

Students should pass also term papers on Courses marked with (*) in table in addition to course work on Specialist research project.

State Examination is passed on "Management of Organization" and "Ecological Tourism".

Faculty of Economics and Socio-Humanitarian Sciences

Field of study "Journalism"
Duration: 5 years
Award: Diploma Specialist
Speciality: Public Relations (code 03060265)
Specialization: Public Relations in the Environment

Course	Total	In-door	Lectures	Semesters	Completion requirements
Earth Sciences	72	36	18	1	Examination
Concepts of Modern Natural Science	124	68	34	1 — 2	Tests
Science of Law	122	68	36	1 — 2	Tests
History of Russia	118	68	36	1 — 2	Test, Examination
Economics	118	68	34	1 — 2	Test, Examination
Mathematics	98	68	34	1 — 2	Test, Examination
Introduction to Specialty	102	52	36	1 — 2	Examination, Test
* Theory and Experience of Mass Media	422	222	172	1 — 5	Tests, Examinations
Russian Language and Standard of Speech	250	136	68	1 — 2	Examinations
Physical Education	408	408	-	1 — 8	Tests
English Language	1546	816	-	1 — 8	Tests, Examination
Computer Organization and Programming	98	68	34	2	Test
Ecology	80	32	32	2	Test
Economics of Environmental Management	118	54	36	3	Examination
Logic and Theory of Argumentation	72	36	18	3	Examination
Stylistics and Literature Editing	138	68	18	3 — 4	Test, Examination
Philosophy	118	68	34	3 — 4	Test, Examination
Introduction to Communication Theory	136	68	34	3 — 4	Examinations
Foreign Literature	244	122	104	3 — 5	Test, Examinations
* Theory and Experience of Public Relations	246	120	68	3 — 5	Tests, Examination
Russian Literature	208	172	138	3 — 6	Tests, Examination

Elective Humanitarian Courses	70	32	32	4	Test
Introduction to Statistics	64	32	16	4	Test
Rhetoric and Oratorical Skill	98	48	32	4	Examination
PR in Government Agencies	54	36	18	5	Test
Political Science	68	36	18	5	Examination
Introduction to Accounting	72	36	18	5	Examination
Antropogenic Impact on the Environment	134	68	68	5 — 6	Tests
World Economics and Foreign-economic Activity	132	68	52	5 — 6	Test, Examination
Modern Management	118	68	68	5 — 6	Test, Examination
Elective Professional Courses	268	140	140	5, 7, 8	Tests
Marketing	64	32	32	6	Test
Psychology and Pedagogy	54	32	32	6	Test
Environmental Monitoring	64	32	16	6	Test
Social Ecology	68	32	32	6	Test
Conflict Management	96	32	32	6	Test
* Companies Organization and Holding in the Field of PR	62	32	16	6	Test
Environment and Human Health	132	68	68	6 — 7	Test, Examination
Marketing Investigations in the Field of PR	58	36	18	7	Test
Communication Management	62	36	18	7	Examination
Religion Studies	66	36	36	7	Examination
Conception of Sustainable Development	72	36	36	7	Examination
* PR in Environmental Protection	100	66	33	7 — 8	Tests
*Social Informatics	132	68	34	7 — 8	Tests
Management of PR Department	96	68	34	7 — 8	Test, Examination
* Advertising in Communication Processes	162	104	52	7 — 8	Examination, Test
International Organizations in the Field of Environmental Protection and Development	80	32	32	8	Test
Psychological Training	48	30	-	8	Test
Sociology	72	30	30	8	Examination
Press-cutting service	48	30	15	8	Examination
Analyses of Natural and Technical Disasters in Mass Media	61	26	26	9	Test
Scientific Popularization of	61	26	26	9	Test

Cosmogeophysical Phenomena					
Ecological Insurance. Ecological Audit	88	39	26	9	Test
Sociology of Mass Communication	104	52	26	9	Examination
Psychology of Mass Communication	104	52	26	9	Examination
Modern International Relations	52	26	26	9	Examination
TOTAL hours	7526	-	-	-	-

Supplements

There is carried out also training practice on "Theory and Experience of Mass media" in 4th semester for four weeks in addition to practical training in 6th semester for six weeks and in 10th semester for six weeks. In 10th semester students have a self-work before presentation of their Specialist research projects.

Students should pass also term papers on Courses marked with (*) in table in addition to course work on Specialist research project.
State Examination is passed on theoretical and practical topics in the field of Public Relations

Field of study "Management"
Duration: 5 years
Award: Diploma Specialist
Speciality: Environmental Economics and Management (code 08050265)

Course	Total	In-door	Lectures	Semesters	Completion requirements
History of Economic Studies	94	54	36	1	Test
Introduction to Engineering Drawing and Designing	102	72	36	1	Examination
Chemistry	150	72	36	1	Examination
Introduction to Speciality	105	70	70	1 — 2	Test, Examination
Physics	200	88	35	1 — 2	Test, Examination
History of Russia	100	87	52	1 — 2	Test, Examination
* Computer Organization and Programming	200	105	70	1 — 2	Examinations
English Language	340	140	-	1 — 4	Tests, Examination
Mathematics	600	280	140	1 — 4	Examinations, Tests
Physical Culture	418	418	-	1 — 8	Tests
Russian Language and Standard of Speech	69	34	-	2	Test
Ecology	80	34	17	2	Test
Science of Law	160	60	30	2	Test
Elective Humanitarian Courses	250	105	70	2 — 3	Test, Examination
Psychology and Pedagogy	110	36	36	3	Test
Safety of Vital Activity	100	54	18	3	Test
Introductory Meteorology	75	36	18	3	Examination
Information Technologies in Economics and Management	120	72	36	3	Examination
* Economic Theory	230	105	70	3 — 4	Test, Examination
Philosophy	143	87	52	3 — 4	Test, Examination
Statistics	213	105	70	3 — 4	Test Examination
Elective Natural Science Courses	75	51	34	4	Test
Methods and Devices of Hydrometeorological Measurements	158	68	51	4	Test

Climatology. Economic Aspects	108	34	17	4	Test
Management Activity Documentation	80	54	36	5	Test
Methods of Meteorological Forecasting	108	36	18	5	Test
Economics of Enterprise	170	90	54	5	Test
Applied Meteorology – Managerial Decision Making.	144	54	36	5	Test
Assessment Methods of Environment Modification under Anthropogenic Impact	170	54	36	5	Examination
World Economy	80	54	36	5	Examination
* Accounting	283	140	70	5 — 6	Test, Examination
Banking	108	93	62	5,9	Examinations
Methods of Environment Sounding	158	68	34	6	Test
Economic Evaluation of Investments	131	51	34	6	Test
Organization, Norm-setting and Remuneration of Labour at the Enterprise	136	51	34	6	Test
Finances and Credit	150	68	34	6	Test
* Organization of Production at the Enterprise	136	80	62	6,9	Tests
Management	252	85	51	6	Examination
Econometrics	121	51	34	6	Examination
Environmental Systems and Constructions	130	54	36	7	Test
Technological Complexes in Nature Management	150	36	36	7	Test
Aeronautical Meteorology	108	36	18	7	Test
Elective Professional Courses	200	36	18	7	Test
Real Estate Economics	70	36	18	7	Examination
Organization of Business	102	72	54	7	Examination
Environmental Development Technology	136	54	36	7	Examination
Management Accounts	69	54	36	7	Examination
Marketing	186	86	52	7 — 8	Test, Examination
Exploitation of Environmental Systems and Constructions	126	64	32	8	Test
Technologies for Protection and Reproduction of Natural Resources	136	48	32	8	Test

Quality Management	102	48	32	8	Test
* Environmental Economics	204	48	32	8	Test
Environmental Technology	130	64	64	8	Examination
Economic Meteorology	154	64	32	8	Examination
Analysis and Diagnostics of Enterprise Economy	228	87	58	8 — 9	Test, Examination
Planning at Enterprise	245	87	58	8 — 9	Test, Examination
Geographical Information Systems	70	39	206	9	Test
Elective Professional Courses	100	26	13	9	Test
Elective Humanitarian Courses	99	39	26	9	Test
Enterprise Finances	159	39	26	9	Test
Financial and Accounting Report at the Enterprise	189	65	39	9	Examination
TOTAL hours	9108	4118	2193	-	-

Supplements

There are carried out training practices on "Computer Organization and Programming" in 2nd semester for two weeks, on "Environmental Economics and Management" in 4th semester for two weeks, on "Accounting" in 6th semester for two weeks in addition to practical training in 8th semester for five weeks and in 10th semester for five weeks. In 10th semester students have a self-work before presentation of their Specialist research projects.

Students should pass also term papers on Courses marked with (*) in table in addition to course work on Specialist research project.

State Examination is passed on "Economic Theory", "Accounting", "Environmental Economics" and "Economic Meteorology".

Field of study "Management"
Duration: 5 years
Award: Diploma Specialist
Speciality: Management of Organization (code 08050765)

Course	Total	In-door	Lectures	Semesters	Completion requirements
History of Management	100	54	36	1	Test
Psychology and Pedagogy	107	36	36	1	Test
Culture Studies	112	54	36	1	Test
* Computer Organization and Programming	115	105	70	1 — 2	Tests
History of Russia	100	87	52	1 — 2	Test, Examination
Introduction to Management	298	105	70	1 — 2	Examinations
English Language	340	140	-	1 — 4	Tests, Examination
Mathematics	576	280	140	1 — 4	Examinations, Tests
Physical Education	418	418	-	1 — 8	Tests
Russian Language and Standard of Speech	68	34	-	2	Test
Science of Law	101	34	17	2	Test
Humanitarian Elective Courses	267	152	109	2 — 3, 9	Tests, Examination
Introductory Meteorology	46	36	18	3	Test
Vital Activity	54	54	18	3	Test
History of Management	70	54	36	3	Examination
Information Technologies in Management	115	54	36	3	Examination
Economic Theory	230	105	70	3 — 4	Test, Examination
* Statistics	213	105	70	3 — 4	Test, Examination
Philosophy	143	87	52	3 — 4	Test, Examination
Elective Natural Science Courses	100	34	34	4	Test
Concepts of Modern Natural Sciences	112	68	51	4	Test
Methods and Devices of Hydrometeorological Measurements	158	68	51	4	Test
Climatology	102	34	17	4	Test
Management Activity Documentation	75	54	36	5	Test

Applied Meteorology	144	54	36	5	Test
Methods of Meteorological Forecasting	124	72	54	5	Test
Sociology	101	36	36	5	Test
World Economics	124	54	36	5	Examination
Theory of Organization	150	72	54	5	Examination
Ecological Management	100	54	36	5	Examination
Methods and Models in Management	110	105	35	5 — 6	Test, Examination
* Business Accounting	283	140	70	5 — 6	Test, Examination
Methods of Environment Sounding	140	68	34	6	Test
Logistics	112	68	34	6	Test
Finances and Credit	150	68	34	6	Test
Political Science	99	34	34	6	Test
Elective Professional Courses	150	66	33	6, 8	Tests
Crisis-proof Management	113	68	51	6	Examination
Management Systems Studies	112	54	36	7	Test
Aeronautical Meteorology	108	36	18	7	Test
Administrational Decision Making	130	90	54	7	Examination
Innovation Management	112	72	54	7	Examination
Organizational Policy	150	72	36	7	Examination
* Marketing	250	86	52	7 — 8	Test, Examination
Quality Management	110	48	32	8	Test
Theory of Economic Analysis	120	64	32	8	Test
Economic Law	160	64	48	8	Test
Economic Meteorology	140	64	32	8	Examination
* Strategic Management	112	64	48	8	Examination
Functional Diagnostics of Industrial Organization	130	52	26	9	Examination
Elective Special Courses	250	78	52	9	Examination
Staff Management	142	65	39	9	Examination
TOTAL hours	7518	3670	1913	-	-

Supplements

There are carried out training practices on "Computer Organization and Programming" in 2nd semester for two weeks, on "Management of Organization" in 4th semester for two weeks, on "Accounting" in 6th semester for two weeks in addition to practical training in 8th semester for five weeks and in 10th semester for five weeks. In 10th semester students have a self-work before presentation of their Specialist research projects.

Students should pass also term papers on Courses marked with (*) in table in addition to course work on Specialist research project.

State Examination is passed on "Economic Theory", "Strategic Management", "Innovational Management", "Marketing", "Introduction to Management", "Economic Meteorology" and "Functional Diagnostics of Industrial Organization".

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FOR NOTES