http://www-biology.univer.kharkov.ua/
Training at School of Biology

- The School of Biology provides training of Bachelors in the field of Biology (6.040102). The BA degree is awarded after the successfully completed 4-year-course. After 4-year course of study the students are qualified as "laboratory assistant in the field of Biology".

- From 2015 The School of Biology starts training of Bachelors in the field of Biotechnology (6.051401) with qualification "laboratory technician in the field of Biotechnology".

- The Master degree is awarded after the successfully completed 2-year-course (on the base of Bachelor of Biology). The departments train Masters according to specialty, providing teaching of the special courses and preparing of Master’s thesis.
### Training of Bachelors and Masters at School of Biology

<table>
<thead>
<tr>
<th>Bachelors – 4 years of study</th>
<th>Masters /2 years of study on the base of Bachelor Degree/</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification</td>
<td>Specialty</td>
<td>Majoring in</td>
</tr>
<tr>
<td>Field 6.040102 – Biology</td>
<td>Biochemistry</td>
<td>Laboratory diagnostics of biological systems</td>
</tr>
<tr>
<td>Qualification: Laboratory assistant in the field of Biology</td>
<td>Biochemistry</td>
<td>Bioecology and botany</td>
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<td></td>
<td>Genetics and cytology</td>
<td>Genetics and cytology</td>
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<td></td>
<td>Zoology and animal ecology</td>
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<td></td>
<td>Mycology and phytomycology</td>
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<td></td>
<td>Molecular biology and biotechnology</td>
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<tr>
<td></td>
<td>Plant physiology and biochemistry</td>
<td>Plant and microorganisms physiology and biochemistry</td>
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<td></td>
<td>Microbiology and virology</td>
<td>Physiology of human and animals</td>
</tr>
<tr>
<td>Biochemist. Research Associate (Biology)</td>
<td>8.04010205 – Biochemistry</td>
<td>Biochemistry</td>
</tr>
<tr>
<td></td>
<td>Laboratory diagnostics of biological systems</td>
<td>Laboratory diagnostics of biological systems</td>
</tr>
<tr>
<td>Geneticist. Research Associate (Biology)</td>
<td>8.04010209 – Genetics</td>
<td>Genetics</td>
</tr>
<tr>
<td>Physiologist. Research Associate (Biology)</td>
<td>8.04010212 – Physiology of human and animals</td>
<td>Physiology of human and animals</td>
</tr>
</tbody>
</table>

From 2015 The School of Biology starts training of **Bachelors in the field of Biotechnology** (6.051401). 4 years of study.

**Qualification:** Laboratory technician in the field of Biotechnology
Organization of study at first 3 years of education

• The university curriculum includes basic and professionally-oriented subjects in the field of Nature sciences such as Botany, Zoology, Ecology, Cytology, Histology, Human Anatomy, Biochemistry, Physiology, Biophysics, Genetics, Microbiology, Virology, Immunology, Biotechnology, Molecular Biology, Evolution theory, and many others.
Students have educational practice in Botany and Zoology that is carried out on Biological station after 1st and 2nd years of education.
During practice students go to excursions, collect samples for analysis
The aim of the practice is to obtain the practical skills in Botany and Zoology fields.
• Research results of student practical work are presented on the conference
БРИОФЛОРА РАЗЛИЧНЫХ ФИТОЦЕНОЗОВ НПП ГОМОЛЬШАНСКИЕ ЛЕСА

Выполнили:
Коваленко Марья Е-122
Крышталь Ольга Е-122
Кучкова Алина Е-122

Аир обыкновенный — Acorus calamus
Сем. Ароидные — Araceae
Многолетнее травянистое растение, буро-зеленого цвета. Растет по берегам рек и озер. Имеет мечевидную форму листа и ветвящийся корневище.

МЕТОДИКА ОПРЕДЕЛЕНИЯ МХОВ:
1. Особенности строения гаметофита
2. Строение листа
   Верхоплодный
   Бокоплодный
3. Строение спорофита

Examples of student presentations
Practice after 3rd year of study

- Departments provide teaching the special courses and special practicum during 3rd and 4th years of education. Students are carrying out their qualification Bachelor’s work during industrial practice after 3rd year and during 4th year of study.
- Bases of practice are: Biological station, Herbarium CWU, Botanical garden, Nature museum, laboratories of scientific research institutions (Institute of Biology of the University, Institute for Cryobiology and Cryomedicine NAS of Ukraine and others).
Bases of practice after 3rd year of study
Training of Masters of Biology, Biochemistry, Genetics and Physiology

• The courses leading to MA and Specialist degrees in Biology, Biochemistry, Genetics and Physiology provide the complete university education. The departments, that provide training of Masters according to specialty, provide teaching the special courses and preparing Master’s thesis.

• >> http://www-biology.univer.kharkov.ua/study-eng.html
Departments of the School of Biology

- Biochemistry
- Botany and plant ecology
- Genetics and cytology
- Molecular biology and biotechnology
- Mycology and phytoimmunology
- Physiology of human and animals
- Plant and microorganisms physiology and biochemistry
- Zoology and animal ecology

>> http://www-biology.univer.kharkov.ua/index-eng.html
BIOCHEMISTRY DEPARTMENT

Head of the Department
Doctor of Sciences (Biology), Full Professor Yevhen E. Perskyi
E-mail: epersky@list.ru

Lecturers – 707-55-02 (room 2-5), 707-52-49 (room 2-9, 2-15)

The fields of the scientific research:

• Cellular and molecular mechanisms of signal transduction,
• Biochemistry of stress and adaptation,
• Biochemistry of extracellular matrix,
• Bioinformatics,
• Medicine biochemistry
Ukrainian Biochemical Society

The department was one of the organizers of the IX Biochemical Congress of Ukraine (2006).

The lecturers and postgraduates of the department are the members of Ukrainian Biochemical Society that is the part of the Federation of European Biochemical Societies (FEBS, http://www.febs.org/).
Employment of graduates of Biochemistry department


Graduates of Department work as scientific collaborators in scientific-research organizations and laboratories of biological, medical, pharmaceutical, veterinary profiles as well as teachers of biological disciplines at Secondary and High Schools.

At the School of Biology there is post-graduate course by speciality 03.00.04 - “Biochemistry”.

Head of the Department
Doctor of Sciences (Biology), Full Professor

Tetyana V. Dogadina
Tel: 707-55-29, room 5-17.
E-mail: Tatjana.V.Dogadina@univer.kharkov.ua

Lecturers – room 5-16, 5-19, Tel 707-55-29

Fields of scientific research:
- floristics,
- taxonomy, ecology, geography of algae, lichens, higher plants,
- bioindication, algotechnology,
- methods for biological waste water purification,
- investigation of flora and vegetation in view of the problem of biodiversity preservation,
- the current state and development of regional ecological network
The Herbarium of Kharkov National University (CWU)

The Herbarium was founded in 1825 by professor V.M. Chernyaev as botanical room of botany department. It belongs to the oldest herbaria of Ukraine and comprises in its funds about 300 thousands of specimens.

The Herbarium possesses the collections valuable in historical and scientific sense, particularly the collections of V.M. Chernyaev, M.S. Turchaninov, S.S. Schegleev, A.O. Potebnya, Yu.N. Prokudin etc. As well the Herbarium includes large collection of old mycological and lichenological exsiccatae.

In 2009 CWU Herbarium was admitted national value of Ukraine.

Herbarium Curator:
PhD in biology (ecology), associate professor Yurij G. Gamulya
Phone: 707-55-29
Address: Svobody sq., 4, Kharkov, 61022
Office: 5-16
Employment of graduates of Botany and plant ecology department


Graduates of the department (masters) can work in the organizations of environment protection, reserve nature areas, at the enterprises of biological and pharmaceutical branch, in research institutions of biological branch; be occupied as educators at educational institutions.

The most talented graduates have the opportunity to continue their education at postgraduate courses.
GENETICS AND CYTOLOGY DEPARTMENT

Head of the Department
PhD (Biology), Associate Professor Lyudmyla I. Vorobyova
Phone: 707-55-01, 707-55-71, room 3-11.
E-mail: lvorobyova[at]univer.kharkov.ua

Lecturers – room 6-12, Tel 707-55-71

Fields of scientific research:
• human, animal and plant genetics,
• radiobiology
• human cytogenetics
• cell culture methods
• mechanisms of formation and manifestation of organisms fitness,
• genetic analysis of behavior traits,
• mechanisms of gene expression regulation
The department has **genetic collections** of drosophila, mulberry and oak silkworms which are the richest in Ukraine.
Employment of graduates of Genetics and cytology department


- Graduates of department successfully work in different fields of science and industry, teach in school or continue study as post-graduates.
MOLECULAR BIOLOGY AND BIOTECHNOLOGY DEPARTMENT

Head of the Department
Doctor of Sciences (Biology), Full Professor Anatoliy I. Bozhkov
E-mail: Bozhkov[at]univer.kharkov.ua

Lecturers: room 7-15, Tel 707-52-62

Fields of scientific research:
• molecular biology and biochemistry of aging,
• biotechnology (in particular, biotechnology of yeasts and one-celled algae),
• cyto-ecology (cellular aspects of stress)
• theoretical molecular biology

Collaborators of Research Institute of Biology take part in Masters training
http://www-niibio.univer.kharkov.ua/
Employment of graduates of Molecular biology and biotechnology department

The department of Molecular biology and biotechnology provides training Masters in Biology - 8.04010201 majoring in molecular biology and biotechnology. Qualification: Biologist. Lecturer at Higher Education Institution. Research Associate (Biology).

- From 2015 The School of Biology starts training of **Bachelors in the field of Biotechnology** (6.051401).

- Now the need in specialists with broad general biological education and a high level of the practical knowledge in technology has appeared in industry and in agricultures. The Department of Molecular Biology and Biotechnology trains the specialists of such direction.
Head of the Department

PhD (Biology), Sergey Shamray
Tel: 707-53-08, 707-56-16, room 4-18
E-mail: Sergey.N.Shamray[at]univer.kharkov.ua

Lecturers: Tel 707-56-16, room 7-19,7-13.

Fields of scientific research:
- biodiversity, ecology and systematic of fungi,
- plant pathology, plant resistance to fungal diseases,
- medical and veterinary mycology,
- sozology and conservation of fungi,
- industrial mycology and protection of materials from biodestructors,
- mushrooms cultivation, biotechnology of fungi
The department cures mycology herbarium (fungarium), that is the part of scientific herbarium (CWU) and the oldest collection of fungies in Ukraine. It collects more than 37,000 samples. Great methodical work is held by staff of the Department in preparing of the monographs, text-books and scientific papers.
Employment of graduates of Mycology and phytoimmunology department

The department Mycology and phytoimmunology provides training Masters in Biology - 8.04010201 majoring in mycology and phytoimmunology.

Qualification: Biologist. Lecturer at Higher Education Institution. Research Associate (Biology).

Graduates working in mycology, plant pathology and microbiology fields, engaged in crop and plant protection from diseases, in the food and pharmaceutical industry, biotech companies which used cultures of fungi, in environmental services, monitoring and quarantine of plants, research laboratories of biological and medical profile and are engaged in teaching in various schools.
DEPARTMENT OF PHYSIOLOGY OF HUMAN AND ANIMALS

Head of the Department
Doctor of Sciences (Biology), Full Professor, laureate
of the A.V. Palladin Prize of the Ukrainian NAS

Valeriy A. Bondarenko
Tel: 707-53-55, 707-52-13, room: 2-11
E-mail: Valery_Bond@rambler.ru

Lecturers: room 2-19, Tel 707-52-13

Fields of scientific research:
• physiology of aging and gerontology,
• immunophysiology,
• psychophysiology,
• development of new educational technologies in the field of physiology
• investigations of the mechanisms of cell sensitivity to external factors, including those in ontogenesis
The department has got the international grant for computer equipment to provide bioethics technologies (modeling of experiments on animals) in teaching of some subjects for Bachelors and Masters.
Employment of graduates of the department of Physiology of human and animals


- Graduates of the department work in research and medical institutions in Ukraine and many other countries.

- The most talented graduates continue their education in the post-graduate school.

- Bases for practice and diplom works are Institute for cryobiology and cryomedicine NAS of Ukraine and other scientific research institutions of Kharkov.
Head of the Department

Doctor of Sciences (Biology), Full Professor Vasyl V. Zhmurko

Tel: 707-52-32, 707-54-82, room 3-21
E-mail: Vasily.V.Zhmurko[at]univer.kharkov.ua

Lecturers - Tel 707-54-82, room 3-14, 3-16

Fields of scientific research:
- plant growth and development control,
- plant tissues and cell cultures morphogenesis in vitro
- physiological and biochemical mechanisms of plant-microbes interactions,
- stress and environmental effects on plant growth and development
The department traditionally get prizes for methodical work.

The department organizes scientific conference “Regulation of plant growth and development” and photo exhibition “Autumn colors”.

II МІЖНАРОДНА НАУКОВА КОНФЕРЕНЦІЯ

РЕГУЛЯЦІЯ РОСТУ І РОЗВИТКУ РОСЛИН: ФІЗІОЛОГО-БІОХІМІЧНІ І ГЕНЕТИЧНІ АСПЕКТИ

МАТЕРІАЛИ

Харків (Україна), жовтень, 13-15, 2011
Employment of graduates of the Plant and microorganisms physiology and biochemistry department

The Plant physiology and biochemistry department provides training Masters in Biology - 8.04010201 majoring in plant physiology or microbiology. Qualification: Biologist. Lecturer at Higher Education Institution. Research Associate (Biology).

• Graduates of the Department work as scientific collaborators in research organizations and laboratories of biological, medical (clinical, biochemical and bacteriological), pharmaceutical, agricultural specializations as well as teachers of biological disciplines.

• At the department there is a post-graduate course.
Head of the Department
DSci (Biology), Professor Viktor Tokarsky
Tel: 707-51-72, room 4-25
E-mail: Viktor.A.Tokarsky[AT]univer.kharkov.ua

Lecturers – room 4-11, Tel 707-51-72

Fields of scientific research:
• systematics and phylogeny animals
• parasitology
• hydrobiology
• entomology
• teriology
• ornithology
• herpentology
• ecology and sea biology of Arctic and Antarctica
Department representatives took part in several Antarctic expeditions (investigation of fauna, underwater photography), expedition to Northern seas, in organization of International Antarctic conferences

By initiative of professor Viktor Tokarsky the Groundhog Day has been introduced and is carried out every February on Biological Station
Employment of graduates of Zoology and animal ecology department

The Zoology and animal ecology department provides training Masters in Biology - 8.04010205 majoring in zoology and animal ecology.

Qualification: Biologist. Lecturer at Higher Education Institution. Research Associate (Biology).

- The graduates work as teachers of biological disciplines, work as engineers and scientific collaborators in institutions of NAS of Ukraine, agriculture field, protected nature areas, organs of nature protection, etc.
STUDENT SCIENTIFIC SOCIETY

- Student scientific society takes an active part in the organization of Ukrainian and Kharkov biological tournaments, student olimpiads, conferences, scientific works competitions.
Every year the Student scientific society of the School of Biology organizes International scientific conference of young scientists “BIOLOGY: FROM MOLECULE TO BIOSPHERE”
Work with schoolchildren:

Chemical-biological tournament named by I.I. Mechnikov

- Schools of Biology and Chemistry organize chemical-biological tournament for pupils of 7-11 classes (school years).
Team for nature protection is the social organization uniting young people (mostly - the students and the graduates of Kharkov National University), who want to really act for Nature protection.

The tasks of this organization: practical activity for nature protection, maintaining of biological diversity, ecological education and propaganda.
Contact information:

Dean of the School of Biology
PhD (Biology), Associate Professor
Lyudmyla I. Vorobyova
Phone: 707-55-01
Address: Svobody sq., 4, Kharkov, 61022
Office: 3-11
E-mail: biology@univer.kharkov.ua

Dean’s office for full-time students:
Tel: 707-54-41, room 3-11a

Dean’s office for distant study:
Tel: 707-56-35, room 3-17

Our website
http://www-biology.univer.kharkov.ua/
Welcome!