

COURSES FOR BACHELORS

General courses (1-6 semesters):

Mathematics
Physics
Inorganic Chemistry
Analytical Chemistry
Lab Safety
Botany
Zoology
General cytology
Histology
Plant Anatomy
Human Anatomy
Latin language
Psychology
Sociology
Economic theory
Philosophy
Teaching
Organic Chemistry
Bioorganic Chemistry
Informatics
Mathematical methods in biology
Biology of individual development
Biochemistry
Microbiology
Soil science
Ecology
Theories of evolution
Plant Physiology and Biochemistry
Physiology of human and animals
Virology
Radiobiology
Immunology
Genetics
Molecular Biology
Biophysics
Biotechnology
Methodics of teaching of biology
Applied mycology
Selection

COURSES FOR BACHELORS

Special courses and practice (6-8 semesters)

Biochemistry department:

Structure and functions of nucleic acids
Biological membranes
Bioinorganic chemistry
Molecular immunology
Medical biochemistry
Regulation of metabolism
Enzymology
Biology of stem cells
Applied informatics
Physical and chemical methods in biochemistry
Methods of analysis of carbohydrates and lipids
Methods of analysis of proteins and aminoacids
Water and salt metabolism
Surgery

Botany and plant ecology department

Basics of experimental research and statistics
Plant ecology
Microtechniques
Principles of scientific photography
Methods of investigation of water and land phytocenosis
Algal physiology and biochemistry
Medicinal Plants
General algology
General hydrobiology
Practice on flora of vascular plants

Genetics department

Gender genetics
Mutagenesis
Human cytogenetics
Radiation genetics
Genetic and cell engineering
Structure of polythemic chromosomes
Genome organization
Genetics of development
Genetic analysis
Molecular and biochemical genetics
Applied genetics
Scoring of mutations in animals and plants

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Methods of human caryotyping

Biochemical genetics

Molecular biology and biotechnology department

Organization of prokaryotic and eukaryotic genomes

Processes and apparatus of biotechnological industry

Molecular biology of cell

Control and directing of biotechnological processes

Constructing and usage of sensors

Engineer and computer graphics

Biotechnology of microalgae

Economics and organization of biotechnological industry

Cell technology

Engineering enzymology

Culturing and molecular-biological characteristics of biotechnological objects

Analysis of activity of gene transcription

Principles of genetic engineering

Molecular diagnostics

Plant physiology and biochemistry department

Culturing of Flowering Plant Cells, Tissues and Organs in vitro

Industrial Microbiology

Plant Intracellular Signal Systems

Plant Ecophysiology with General

Physiology of Plant Resistance

Plant Mineral Nutrition with General Soil Microbiology

Actual problems of Plant Physiology and Biochemistry

Scientific Research Principles

Biochemistry of Plants and Microorganisms

Photosynthesis

Plant Hormones

Physiology of Flowering

Mycology and phytopathology department

Agricultural phytopathology

General mycology

Mycological and microbiological toxicology

Pathogenesis

Fungal taxonomy

Methods of field researches

A wood phytopathology

Genetics of fungi

The medicine and veterinary mycology

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Diagnosis of plant diseases
Methods of experimental mycology
Methods of physiological and biochemical research
Industrial cultivation of mushrooms

Physiology of human and animals department

Hematology
Electrophysiology
Endocrinology
Physiology of cardio-respiratory system
Surgery
Physiology of CNS
Physiology of water-salt metabolism
Physiology of neurotransmitters
Physiology of vitamins
Methods of analysis of proteins, carbohydrates and nucleic acids
Methods of analysis of lipids
Methods of cell physiology

Zoology and animal ecology department

Ecology of Birds
Ichthyology
Entomology
Parasitology
Batrachology
Industrial Aquaculture
Phylogenetics
Biometric Methods in Zoology
Theory of Fauna Conservation
Geoinformatics technologies in biology and ecology
Zootomy of invertebrates
Zootomy of Mammals
Zootomy of fish, amphibia, birds
Study on Protected Areas
Microscope and Histology Techniques