

Документ подписан простой электронной подписью
Информация о владельце:
ФИО: Саидов Заурбек Асланбекович
Должность: Ректор
Дата подписания: 11.10.2023 13:43:04
Уникальный программный ключ:
2e8339f3ca5e6a5b4531845a12d1b5c4e1a1f0a

MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION

Federal State Budgetary Educational Institution of Higher Education
"Chechen State University"

FACULTY OF BIOLOGY AND CHEMISTRY
Department of Cell Biology, Morphology and Microbiology

ANNOTATION
work programs
practices of the main professional educational program of higher education
(undergraduate program)

Direction of training	Biology
Code of direction of training	06.03.01
Profile (orientation)	Microbiology
Qualification (degree)	Bachelor
Form of study	Full-time / part-time
Development period	4/5 years

Grozny, 2022

Annotation of the work program of practice for obtaining primary professional skills, implemented in the direction of training 06.03.01 "Biology" training profile "Microbiology"

Purpose of the discipline	Formation of professional skills and experience of professional activity in the field of training "Microbiology".
Tasks of the discipline	familiarization with the organization and equipment of the microbiological laboratory and the rules for working with microorganisms; mastering the technique of preparing microscopic preparations, staining methods; preparation of microscopic preparations using methods corresponding to the objectives of the study; analysis of microscopic preparations; mastering the technique of preparing various nutrient media; mastering sterilization methods; mastering the methods of sowing microorganisms on nutrient media; mastering the methods of quantitative accounting of microorganisms isolation of pure cultures with subsequent identification of the species); study of the properties of opportunistic microorganisms; determination of the sensitivity of microorganisms to antibiotics; sanitary and microbiological study of the soil; sanitary and microbiological study of water; sanitary and microbiological examination of air. bacteriological examination of foodproducts. obtaining storage cultures.
As a result of mastering the discipline, the student must	
purchase experience of practical work:	gain practical work experience: application of bacteriological and immunological research techniques;
Be able to:	accept, register clinical (biological) material; prepare the test material, nutrient media, reagents and equipment for microscopic, microbiological and serological studies; conduct microbiological studies of clinical material; evaluate the result of the research; maintain accounting and reporting documentation; prepare material for immunological research, carry out its storage, transportation and registration; prepare reagents, laboratory equipment and apparatus for research; conduct an immunological study; carry out the disposal of waste material, disinfection and sterilization of glassware, tools, workplace protection equipment and equipment used in the laboratory; evaluate the results of bacteriological research;

	conduct sanitary and microbiological analysis of water, air, soil conduct sanitary and microbiological analysis of food products.
Own:	methods of fixation, staining microscopic examination of microorganisms; sterilization methods; methods of preparation of culture media; sowing methods; methods of immunological analysis methods of sanitary and microbiological analysis of water, soil, air, food products PCR methods - analysis of infectious and parasitic diseases.

Annotation of the work program of practice for obtaining professional skills and experience of professional activities implemented in the direction of training 06.03.01 "Biology" training profile "Microbiology"

Purpose of the discipline	Preparation of highly qualified specialists for work in microbiological laboratories of medical institutions and industrial enterprises.
Tasks of the discipline	- develop the practical skills necessary to perform bacteriological research; - selection of pure cultures with subsequent identification of the species; - study of the properties of conditionally pathogenic microorganisms; - determination of the sensitivity of microorganisms to antibiotics; - sanitary and microbiological study of the soil; - sanitary-microbiological study of water; - sanitary and microbiological examination of air; - bacteriological examination of food products; - obtaining storage cultures.
As a result of mastering the discipline, the student must	
Know	and observe safety precautions at the workplace, ensure the infectious safety of personnel and the patient, know the structure of the microbiological laboratory.
Be able to:	1. Set up an experiment as the main mechanism of cognition. 2. Conduct analytical studies designed to provide the deepest possible insight into the nature of phenomena. 3. Formulate general patterns arising from the results of the studies. 4. Issue a report on the work done.
Own:	research methods

Annotation of the work program of the academic discipline "Practice for obtaining professional skills and experience of professional activity" implemented in the direction of training 06.03.01 "Biology" training profile "Microbiology"

Purpose of the discipline	Formation of professional skills and experience of professional activity in the field of training "Microbiology".
Tasks of the discipline	familiarization with the organization and equipment of microbiological laboratories and rules for working with microorganisms; mastering the technique of preparing microscopic preparations, coloring methods; preparation of microscopic preparations using methods corresponding to the objectives of the study; analysis of microscopic preparations; mastering the technique of preparing various nutrient media; mastering sterilization methods; mastering the methods of sowing microorganisms on nutrient media; development of methods for quantitative accounting of microorganisms, isolation of pure cultures with subsequent identification of the species); study of the properties of opportunistic microorganisms; determination of the sensitivity of microorganisms to antibiotics; sanitary and microbiological study of the soil; sanitary microbiological study of water; sanitary microbiological examination of air. bacteriological examination of food products. obtaining storage cultures.
As a result of mastering the discipline, the student must	
Get a practical experience:	application of bacteriological and immunological research techniques

Be able to:	accept, register clinical (biological) material; prepare test material, nutrient media, reagents and equipment For holding microscopic, microbiological and serological studies; conduct microbiological research of clinical material; evaluate the result of the research; maintain accounting and reporting documentation; prepare material for immunological research, carry out its storage, transportation and registration; prepare reagents, laboratory equipment and apparatus for research; conduct an immunological study; carry out the disposal of waste material, disinfection and sterilization of glassware, tools, workplace protection equipment and equipment used in the laboratory; evaluate the results of bacteriological research; conduct sanitary and microbiological analysis of water, air, soil
	conduct sanitary-microbiological analysis of food products.
Own:	methods of fixation, staining microscopic examination of microorganisms; sterilization methods; methods of preparation of culture media; sowing methods; methods of immunological analysis methods of sanitary and microbiological analysis of water, soil, air, food products PCR methods - analysis of infectious and parasitic diseases

Annotation of the work program of the academic discipline "Undergraduate practice" implemented in the direction of training 06.03.01 "Biology" training profile "Microbiology"

Purpose of the discipline	preparation of the final qualifying work (FQW)
Tasks of the discipline	Generalization of materials accumulated during the period of practical training. Analysis of theoretical, practical and methodological materials on the subject of FQW. Study and critical analysis of methods for solving scientific problems on a chosen topic. Application of the studied scientific methods in solving new problems. Registration of FQW
As a result of mastering the discipline, the student must	
purchase experience of practical work:	application of bacteriological and immunological research techniques

Be able to:	operate modern apparatus and equipment to carry out research work apply in practice the methods of compiling scientific and technical reports, reviews, analytical maps and explanatory notes, present and critically analyze the information received, present the results of biological research apply modern methods of processing, analysis and synthesis of production and laboratory biological information, the rules for compiling scientific and technical projects and reports, use the main technical means of searching for scientific and biological information, universal packages of applied computer programs, create databases of experimental biological data, work with biological information in global computer networks
Own:	methods of laboratory research and research work methods for compiling scientific and technical reports, reviews, analytical maps and explanatory notes, modern methods of processing, analysis and synthesis of production and laboratory biological information, rules for compiling scientific and technical projects and reports, basic technical means of searching for scientific and biological information, universal applied computer packages programs.

ANNOTATION
 OF THE WORKING PROGRAM OF THE EDUCATIONAL
 DISCIPLINE
 "Methodology for writing a research paper"

Purpose(s) disciplines	– consolidation of theoretical knowledge in the disciplines of the profile "Microbiology"; – initial adaptation to professional activities, including the formation of primary practical skills and skills
Tasks disciplines	– to form the skills of working with special literature; – introduce with electronic catalogs university libraries; – teach to systematize the information received; – get experience compiling informational report about sources of scientific information on the proposed topic; – collection of literary material on the problem for the design of the term paper;

	– acquaintance with the laboratory equipment of the department; – mastering the main methods of research on the topic of the course work; – mastering the skills of writing results; – presentation of a report on the results of the work carried out; – defense of the submitted report.
As a result of mastering the discipline, the student must:	
Know:	theoretical foundations of profile disciplines; systemic nature of scientific knowledge; basic research methods on the topic of the course work; the essence of research methods on the topic of the course work; requirements for writing and compiling reports, explanatory notes.
Be able to:	acquire new knowledge using modern educational technologies; work with literary sources on the proposed topic; find the necessary information in scientific journals and the Internet; work with electronic catalogs of the university library; draw up an information report on the sources of scientific information on the proposed topic; apply modern experimental methods of working with biological objects in laboratory conditions; draw up a research plan using basic physiological equipment; apply the acquired knowledge on the design and presentation of results training practice for report preparation; report the results of their research work.
Own:	modern computer technologies; skills of summarizing scientific literature; skills to use modern information technologies to acquire new knowledge; basic skills of working with modern equipment; the main methods of conducting scientific research on the topic course work; the main techniques and ways of designing and presenting the results of educational practice.