**ANNOTATION**

**Internship in research**

**1. Practice objectives**

In accordance with the general objectives of the educational program for the preparation of graduates for professional activities, the objectives of the master’s practice, implemented under the master’s program “Molecular and Cellular Biology and Biomedicine”, are:

- the development of students' skills in the use of fundamental biological concepts in the field of professional activity;

- the development of the skills of the students to conduct independent research work at the professional level;

- the formation of skills of independent work on modern scientific equipment;

- the formation of masters skills to handle the results of research work at a professional level;

- student's work with scientific literature at the professional level;

- participation of students in conducting laboratory research according to the plan of the department or on the initiative topic at a professional level.

**2. Tasks of practice**

The objectives of the practice of obtaining professional skills and professional experience in the master program "Molecular Cell Biology and Biomedicine" are:

• Formation of masters' skills in the selection and justification of research methods that are adequate to the goal;

• collection of material for the preparation of final qualifying work;

• mastering by students of additional laboratory research methods;

• formation of a high level of skills of mathematical processing of research results;

• formation of advanced skills in computer, graphic and literary presentation of research results;

• the study of additional sources of literature on the subject of final qualifying work;

• professional mastery of the principles of bioethics in their own research, instilling the principles of bioethics to undergraduate students.

**3. Trainee competencies generated as a result of internship**

As a result of this practice, the following competences are formed in the student:

General Professional Competences:

A graduate graduate program should be willing to use the fundamental biological concepts in the field of professional activity for the formulation and solution of new problems;

A graduate graduate program should have the ability to independently analyze available information, identify fundamental problems, set a task and carry out field and laboratory biological research in solving specific problems using modern equipment and computing tools, be responsible for the quality of work and scientific accuracy of the results;

A graduate of a master's program must have the ability to professionally draw up, submit and report the results of research and production and technological work in accordance with approved forms;

professional competence (PC):

A graduate of the master's program must have the ability to creatively use in scientific and industrial-technological activity knowledge of the fundamental and applied areas of disciplines that determine the direction of the master's program;

A graduate of the master's program must have the ability to plan and implement professional activities;

A graduate of the master's program must have the ability to apply the methodological foundations of design, field and laboratory biological, environmental research, use modern equipment and computing systems;

A graduate of the master's program must have the ability to generate new ideas and methodological solutions.

As a result of this practice, the student acquires the following practical skills and abilities:

- the ability to exploit modern equipment used in laboratory genetic, molecular genetic, cytogenetic, microbiological and biochemical laboratory studies;

- the ability to apply in conducting research basic professional knowledge;

- demonstrate knowledge of the principles of the preparation of scientific reports;

- ability to work with scientific literature, including one of foreign languages;

- use regulatory documents defining the safety of laboratory work;

- acquire the skills of mathematical and computer processing of research results;

- apply the principles of bioethics in their work, explain the principles of bioethics to younger students.

**4. The structure and content of the practice**

The volume of practice is 6 credit units, the duration of 4 weeks, 216 hours, 96 hours of contact.

**5. Requirements for the content of practical classes performed by foreign students**

The individual assignment for a foreign student undergoing practical training is determined by his supervisor in accordance with the topic of his thesis and is approved at a meeting of the department. Foreign students undergo practical training on the basis of the departments and laboratories of the Academy of Biology and Biotechnology of the Southern Federal University.

During the internship, foreign students cannot work with information constituting state, commercial secrets and other information of limited access.

Also, they are not allowed to interact with objects and technologies included in the Lists (lists) of goods and technologies in respect of which export controls are carried out.