**ANNOTATION**

**Pre-graduation practice**

**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 tasks of the pre-diploma master's practice are:

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

• completion of the formation of computer skills and graphic design of the research results;

• completion of the study of scientific literature on the research problem;

• processing and analyzing the data obtained, comparing the results of our own research with the data available in the literature.

**3. Competences of the student, formed as a result of practical training**

As a result of the pre-diploma practice, the student should acquire the following practical skills, abilities, universal and professional competencies:

**а) General professional competence (OPK)**

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| **Competence code** | **Competence** |
| OPK-1 | A graduate of the master's program must be willing to communicate in oral and written forms in the state language of the Russian Federation and in a foreign language to solve problems of professional activity |
| OPK-3 | A graduate of the master's program must be willing to use fundamental biological concepts in the field of professional activity to set and solve new problems. |
| OPK-4 | A graduate of the master's program must 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 |
| OPK-7 | A graduate of the master's program must be willing to creatively apply modern computer technology in the collection, storage, processing, analysis and transmission of biological information to solve professional problems. |
| OPK-9 | A graduate of the master's program must have the ability to professionally draw up, present and report the results of research and production and technological works in accordance with the approved forms |

**в) professional competence (PK):**

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| **Competence code** | **Competence** |
| PK-1 | 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 sections of the disciplines (modules) determining the direction of the master's program |
| PK-2 | A graduate graduate program must have the ability to plan and implement professional activities. |
| PK-3 | 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 of modern equipment and computing systems |
| PK-4 | A graduate of the master's program must have the ability to generate new ideas and methodological solutions. |

As a result of pre-diploma internship, the student should acquire the following practical skills, abilities:

• professionally process the research results (using mathematical methods, using a computer);

• professionalize the results of the study;

• ability to apply basic general professional knowledge;

• demonstrate knowledge of reporting principles;

• ability to work with scientific literature;

• use regulatory documents defining work safety.

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

The amount of practice is 9 credits,

Duration 6 weeks.

**5. Practice Reporting Forms**

The result of the pre-diploma practice of the master's degree in the master program "Human Ecology with Fundamental Biomedicine" is the completion of the final qualification work for the defense. The form of certification is the presentation and pre-defense of the final qualifying work at the department.

The defense of final qualifying work is held at the open meeting of the graduating department with the participation of at least 2/3 of its composition. The procedure for pre-defense includes a student's report, accompanied by illustrative material (presentation) of no more than 15 minutes, questions and comments of those present and the student's answers to them, the opinion of the supervisor. The faculty of the graduating department evaluates the theoretical and applied value of the final qualifying work, the quality of the design of the work, the student’s ability to present the results of the research, his answers to the questions and critical remarks of those present; the quality of the literature review on the research topic (the degree of originality of the text is not lower than 60%, the share of publications used in the last 5 years is not lower than 20%).

The result of the pre-defense is admission (corresponds to practice credit) or non-admission (not offset) of the graduation qualification work to the defense at a meeting of the State Attestation Commission, as well as the decision to place the master's graduation qualification work in the electronic library system of the Southern Federal University in accordance with the order No. 453 of 04/11/2016.

According to the results of the pre-defense of the final qualifying work, the student is given a final grade for pre-diploma practice (“credited” / “not credited”). The reporting document is also the Obligation (application) of the student to place the final qualifying work on the SFedU website, signed by the supervisor. Placement of final qualifying work in the electronic library system of Southern Federal University is carried out in accordance with the Annex to the Order of Southern Federal University No. 453 of 04/11/2016.

**6. 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.