

## MINISTRYOF SCIENCE AND HIGHER EDUCATION IN THE RUSSIAN FEDERATION Federal State Autonomous Educational Institution of Higher Education

## "Far Eastern Federal University" (FEFU)

## ANNOTATION BASIC PROFESSIONAL EDUCATIONAL PROGRAM OF HIGHER EDUCATION

Undergraduate program 09.03.02 Information systems and technologies

Digital Footprint Analytics

The Basic Professional Educational Program (BPEP) is a system of documents developed and approved by FEFU, taking into account the requirements of the labor market, based on the Federal State Educational Standard in the field of study 09.03.02 Information systems and technologies, approved by order of the Ministry of Education and Science of the Russian Federation of September 19, 2017 No. 926 (with amendments and additions).

The focus of the BPEP is focused on:

- areas and spheres of professional activity of graduates, which the program is focused on;
  - types of tasks and tasks of professional activity of graduates;
- on the objects of professional activity of graduates or area (areas) of knowledge.

The orientation of the program determines the subject-thematic content, the prevailing types of educational activities of the student and the requirements for the results of mastering the BPEP. Qualification awarded to graduates of the educational program: bachelor.

BPEP is a complex of the main characteristics of education (volume, content, planned results), organizational and pedagogical conditions, forms of certification, which is presented as a general characteristic of the main professional educational program, curriculum, calendar curriculum, work programs of disciplines (modules), practices, SFC programs, including assessment tools and methodological materials, information about the actual resource provision of the educational process, as well as a work program for education, a calendar plan for educational work.

The labor intensity of the BPEP in the direction of training is 240 credits.

The educational goal of the program of the direction of training 09.03.02 Information systems and technologies, "Digital Footprint Analytics" is to prepare bachelors capable of carrying out research, production, technological, organizational, managerial and project activities in the field of research, development, implementation and maintenance of information technologies and systems, including for the analysis of digital trace data of a person (groups of people) and information and communication systems.

The task of the BPEP of Higher Edication in the direction of preparation 09.03.02 Information systems and technologies, "Digital Footprint Analytics" is to form developed competencies in the following areas:

- study of models and methods of information systems and technologies designed to analyze digital footprint data;
- development and integration of software modules and components for the collection and analysis of digital footprint data;
  - ensuring the functioning of databases, preventing data loss and damage,

ensuring information security;

- performance of work on the creation (modification) and maintenance of information systems;
- management of software and hardware of infocommunication systems, administration of networks;
- organizational support for the development, implementation and maintenance of the project in the field of information technology;
- project management in the field of collecting and analyzing the digital footprint.

Types of tasks of professional activity of graduates: research; production and technological; organizational and managerial; design.

List of professional standards:

- 06.001 Professional standard "Programmer", approved by order of the Ministry of Labor and Social Protection of the Russian Federation of November 18, 2013 No. 679n (registered by the Ministry of Justice of the Russian Federation on December 18, 2013, registration No. 30635), as amended by the order of the Ministry of Labor and social protection of the Russian Federation dated December 12, 2016 No. 727n (registered by the Ministry of Justice of the Russian Federation on January 13, 2017, registration No. 45230);
- 06.003 Professional standard "Software Architect", approved by the order of the Ministry of Labor and Social Protection of the Russian Federation of August 30, 2021 No. 579n (registered by the Ministry of Justice of the Russian Federation on October 05, 2021, registration No. 65296);
- 06.004 Professional standard "Specialist in testing in the field of information technology", approved by order of the Ministry of Labor and Social Protection of the Russian Federation dated August 02, 2021 No. 531n (registered by the Ministry of Justice of the Russian Federation on September 03, 2021, registration No. 64866);
- 06.016 Professional standard "Project manager in the field of information technology", approved by order of the Ministry of Labor and Social Protection of the Russian Federation dated November 18, 2014 No. 893n (registered by the Ministry of Justice of the Russian Federation on December 9, 2014, registration No. 35117), as amended, introduced by the order of the Ministry of Labor and Social Protection of the Russian Federation of December 12, 2016 No. 727n (registered by the Ministry of Justice of the Russian Federation on January 13, 2017, registration No. 45230);
- 06.017 Software development manager by order of the Ministry of Labor and Social Protection of the Russian Federation No. 645n dated September 17, 2014 (registered by the Ministry of Justice of the Russian Federation on November 24, 2014, registration No. 34847), as amended by the order of the Ministry of

Labor and Social Protection of the Russian Federation dated December 12, 2016 No. 727n (registered by the Ministry of Justice of the Russian Federation on January 13, 2017, registration No. 45230);

- 06.026 Professional standard "System administrator of information and communication systems", approved by order of the Ministry of Labor and Social Protection of the Russian Federation of September 29, 2020 No. 680n (registered by the Ministry of Justice of the Russian Federation on October 26, 2020, registration No. 60580);
- 06.027 Specialist in the administration of network devices of information and communication systems, by order of the Ministry of Labor and Social Protection of the Russian Federation dated October 05, 2015 No. 686n (registered by the Ministry of Justice of the Russian Federation on October 30, 2015, registration No. 39568);
- 06.042 Professional standard "Big Data Specialist", approved by order of the Ministry of Labor and Social Protection of the Russian Federation No. 405n dated July 06, 2020 (registered by the Ministry of Justice of the Russian Federation on August 05, 2020, registration No. 59174);
- 06.046 Professional standard "Specialist in modeling, collecting and analyzing digital footprint data", approved by order of the Ministry of Labor and Social Protection of the Russian Federation dated July 09, 2021 No. 462n (registered by the Ministry of Justice of the Russian Federation on July 30, 2021, registration No. 64502);
- 40.011 Professional standard "Specialist in research and development", approved by order of the Ministry of Labor and Social Protection of the Russian Federation of March 04, 2014 No. 121n (registered by the Ministry of Justice of the Russian Federation on March 21, 2014, registration No. 31692), as amended by Order No. 727n of December 12, 2016 of the Ministry of Labor and Social Protection of the Russian Federation (registered by the Ministry of Justice of the Russian Federation on January 13, 2017, registration No. 45230).

BPEP is implemented independently, with partial use of e-learning and distance learning technologies, in the state language of the Russian Federation.

The specificity of the educational program lies in the subject-professional focus on methods and technologies for collecting, storing and analyzing large amounts of heterogeneous data. Graduates of the program have developed competencies in the field of data analysis in various subject areas, including the analysis of the digital footprint of a person (groups of people) and information and communication systems.

The organization of the educational process is carried out in accordance with the approved educational program, which includes documents and materials updated annually, taking into account changes in legislation, the development of educational technologies, science and the needs of employers.

Preparation of bachelors in the field of study 09.03.02 Information systems and technologies, "Digital Footprint Analytics" is relevant, caused by the great need of the modern economy for specialists with developed competencies of data analysts who can ensure the implementation of information systems and technologies in the field of collecting and analyzing digital footprint data, as well as in general information systems and technologies in various subject areas.

The choice of disciplines of the mandatory part and the part formed by the participants in educational relations provides the necessary competencies of the graduate, taking into account the requests of employers, both in the field of scientific research and in the field of digital footprint data analysis and, in general, information systems and technologies.

The choice of disciplines of the mandatory part of the program ensures the formation of the necessary universal and general professional competencies of the graduate and the requirements of the modern labor market: the ability to search and analyze information; willingness to participate in the development and implementation of projects; communication readiness; ability to self-organization and self-development; the ability to apply natural science knowledge, mathematical models and methods; ability to use modern information technologies and software; ability to develop technical documentation and use it; ability to develop algorithms and programs; the ability to select platforms and instrumental software and hardware for the implementation of information systems.

The choice of disciplines of the part formed by the participants in educational relations ensures the formation of the necessary professional competencies of the graduate and the requirements of the modern labor market, the ability to:

- explore models and methods of information systems and technologies;
- develop, test and integrate software modules and components;
- create, modify and maintain information systems;
- manage software and hardware of infocommunication systems, administer networks and systems;
- ensure the functioning of databases, prevent data loss and damage, ensure information security;
  - conduct data analysis, including digital footprint data and big data;
- develop, implement, accompany projects, manage projects in the field of information technology.

Graduates of this educational program can be employed in the IT field, in the IT services of organizations of various industries and forms of ownership: industrial enterprises, state and municipal structures, scientific institutions, financial, insurance, design and consulting companies, as well as companies operating which is associated with the generation and / or collection and analysis of significant amounts of data, with security.

A bachelor in the direction 09.03.02 Information systems and technologies is prepared to continue education in the master's program in the directions 09.04.02 Information systems and technologies, 09.04.03 Applied informatics and other related areas.

FEFU implements an organizational model of inclusive education - ensuring equal access to education for all students, taking into account various special educational needs and individual abilities of students.

FEFU forms its educational system in accordance with its specifics, traditions, strategic priorities for the development of the Far East and the mission of the university in the Asia-Pacific region, the global educational space is a value-normative, methodological, methodological and technological basis for organizing educational activities at the present stage of university development .

Head of educational program

V.A. Shichalina