

MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION
Federal State Autonomous Educational Institution for Higher Education
«North-Caucasus Federal University

APPROVED BY

Dean of FPE of NCFU

Candidate of Technical Sciences,

Associate Professor A.E. Verisokin

WORK PROGRAM OF UPBRINGING

Field of study	13.04.02 Electric Power Engineering and Electrical Engineering
Specialization (Profile)	Training Program of Electrical Engineering
Year of commencement of studies	2026
Mode of study	full-time

Stavropol, 2026 г.

CONTENT

EXPLANATORY NOTE

1. GOAL AND OBJECTIVES OF EDUCATION (UPBRINGING) FOR THE EDUCATIONAL PROGRAM

2. EDUCATION PROGRAM WITHIN THE STRUCTURE OF THE EDUCATIONAL PROGRAM

3. CONTENT OF THE EDUCATION PROGRAM

3.1 List of planned results of mastering the education program, correlated with the planned results of mastering the educational program

3.2 Assessment of students' mastery of the education program within the main educational program

4 CALENDAR PLAN OF EDUCATIONAL WORK DURING THE IMPLEMENTATION OF THE EDUCATIONAL PROGRAM

5 LIST OF RESOURCES REQUIRED FOR THE IMPLEMENTATION OF THE EDUCATIONAL PROCESS

5.1 Resource provision for the implementation of the Education Program

5.2 Regulatory and legal support

5.3 Staffing

5.4 Financial support

5.5 Information support

5.6 Scientific, methodological and educational-methodological support

5.7 Material and technical support

6 INFRASTRUCTURE OF NCFU ENSURING THE IMPLEMENTATION OF THE WORK PROGRAM OF EDUCATION

6.1 Sociocultural space

6.2 Networking with organizations, social institutions and educational subjects

6.3 Sociocultural space. Networking with organizations, social institutions and educational subjects

6.4 Sociocultural space

6.5 Networking with organizations, social institutions and educational subjects

EXPLANATORY NOTE

The Education Program at the Federal State Autonomous Educational Institution of Higher Education "North Caucasus Federal University" (hereinafter - the Education Program at NCFU) represents the value-normative, methodological, and technological foundations for organizing educational (upbringing) activities at the university.

The Education Program for the educational program and the calendar plan of educational work have been developed taking into account current trends and new requirements for state youth policy; their implementation is focused on building an educational-upbringing trajectory considering a modular approach to the organization of educational activities.

The Education Program for the educational program has been developed on the basis of the current regulatory framework and taking into account the requirements of the Federal State Educational Standard for the field of study (specialty) 13.04.02 "Electric Power Engineering and Electrical Engineering" (Master's level).

1. GOAL AND OBJECTIVES OF EDUCATION (UPBRINGING) FOR THE EDUCATIONAL PROGRAM

The goal of the program - based on basic social values, to ensure the personal development of students, manifested in:

- the development of a positive attitude towards social values, i.e., the development of their socially significant relationships;
- the acquisition of experience in behavior corresponding to these values, experience in applying the formed knowledge and relationships in practice, and the acquisition of experience in carrying out socially significant deeds.

Objectives of the program:

- development of worldview and actualization of the system of basic personal values;
- familiarization of students with universal moral norms, national foundations and academic traditions;
- fostering respect for the law, norms of collective life, development of civic and social responsibility;
- fostering a culture of interethnic communication among young people;
- prevention of manifestations of national and religious extremism and national intolerance in the student environment;
- increasing the level of safe behavior culture;
- development of a system of social support for student youth;
- fostering a culture of financial literacy, developing a system for protecting social rights and ensuring social guarantees for students belonging to privileged categories;
- fostering a positive attitude to work, fostering socially significant purposefulness and responsibility in business relations;
- ensuring personality development and its socio-psychological support, forming personal qualities necessary for effective professional activity;
- identifying and supporting talented youth, developing organizational skills, creative potential, involving students in self-development and self-realization processes;
- forming a culture and ethics of professional communication;
- fostering an inner need for a healthy lifestyle, a responsible attitude to the natural and sociocultural environment;
- development of personal qualities and attitudes (responsibility, discipline, self-management), social skills (emotional intelligence, orientation in the information space, speed of adaptation, communication; ability to work in a team) and management abilities (decision-making skills under uncertainty and change, time management, leadership, critical thinking).

The Education Program has been developed in accordance with:

- The Constitution of the Russian Federation;
- Federal Law No. 273-FZ of December 29, 2012 "On Education in the Russian Federation";
- Federal State Educational Standard for Higher Education for the field of study (specialty) 13.04.02 "Electric Power Engineering and Electrical Engineering" (Master's level);
- The Education Program at the Federal State Autonomous Educational Institution of Higher Education "North Caucasus Federal University" (approved by decision of the Academic Council of NCFU, Minutes No. 14 of May 27, 2021);
- The Development Program of the Federal State Autonomous Educational Institution of Higher Education "North Caucasus Federal University" for 2012-2021, approved by Order of the Government of the Russian Federation No. 1403-r of July 18, 2015 "On Amendments to the Development Program of the Federal State Autonomous Educational Institution of Higher Professional Education 'North Caucasus Federal University' for 2012-2021, approved by Order of the Government of the Russian Federation No. 854-r of May 28, 2012" in terms of fulfilling the task of forming a quality student body and the priority project of NCFU "Formation of a Competitive Personality";
- other regulatory legal acts of the university in the field of education and educational policy.

2. EDUCATION PROGRAM WITHIN THE STRUCTURE OF THE EDUCATIONAL PROGRAM

The work program of education and the calendar plan of educational work are part of the main professional educational program (hereinafter - MPEP), developed and implemented in accordance with the current Federal State Educational Standard (hereinafter - FSES).

The work program of education as part of the main educational program (MPEP) implemented by the higher education institution (developed for the duration of the educational program and defines a set of key characteristics of the system of educational work of the higher education institution (principles, methodological approaches, goal, objectives, directions, forms, means and methods of education (upbringing), planned results, etc.)).

3. CONTENT OF THE EDUCATION PROGRAM

3.1. List of planned results of mastering the education program, correlated with the planned results of mastering the educational program

In accordance with the main goals, objectives, principles of education (upbringing), the directions of educational activities implemented at the university are combined and divided into five Modules (or Blocks), which are included at all levels of academic and extracurricular work: at lectures, seminars, industrial internships, in the work of curators with students, in the activities of student public organizations, etc.

The constituent components of the five Modules (or Blocks), the implementation of which ensures the formation and development of professional and supra-professional competencies of the graduate provided for by the FSES (NCFU FSES), are presented in Table 1.

Table 1

Constituent components of the Modules

Module 1	Module 2	Module 3	Module 4	Module 5
Civicness, morality, patriotism	Civil-legal culture	Personal growth	Professional-labor	Professionalism
Formation of civicness and sense of patriotism; Moral and ethical education and personality development; Spiritual and moral values; Cultural and aesthetic education; Family and domestic education; Physical and sports education and personality development; Formation of the need for a healthy lifestyle; Volunteering and charity; Development of student self-government.	Formation of worldview and system of fundamental values: universal, civic, professional, determining young people's attitude to the rapidly changing world; Civic-patriotic education and legal education; Formation of information culture and information security; Environmental education and formation of ecological thinking; Intercultural interaction.	Formation of career trajectory of students and construction of personal development trajectory; Formation of need and creation of conditions for personal and professional success of students (self-management); Formation of tactical and strategic thinking (for student activists); Preparation of students and familiarization with the forecast of labor market development (professions of the future); Familiarization with professions of the future and NTI markets.	Meta-skills; Labor education, professional formation and education of future specialist; Formation of constructive thinking skills; Formation of the need to concentrate spiritual, emotional, physical, mental strength and energy, internal balance and self-confidence to solve assigned tasks (resource state); Formation of teamwork skills, team building; Project activity of students and project management; Development of socio-personal competencies (teamwork, leadership, emotional intelligence, etc.); Ecological thinking.	Professional adaptation to employment, increasing career guidance and professional motivation; Environmental, critical and reflective thinking; Maintaining a resource state.

As a result of mastering the work program of education for the field of study 13.04.02 "Electric Power Engineering and Electrical Engineering", students develop the following competencies

Module	Formed competencies
1.. Civicness, morality, patriotism	UC-1 Capable of conducting critical analysis of problem situations based on a systems approach and developing an action strategy UC-5 Capable of analysing and accounting for cultural diversity in the process of intercultural interaction

2. Civil-legal culture	UC-3 Capable of organising and leading a team, developing a team strategy to achieve the set objective UC-4 Capable of applying modern communication technologies, including in foreign language(s), for academic and professional interaction UC-5 Capable of analysing and accounting for cultural diversity in the process of intercultural interaction
3. Personal growth	UC-1 Capable of conducting critical analysis of problem situations based on a systems approach and developing an action strategy UC-6 Capable of identifying and realising the priorities of one's own activities and ways of improving them based on self-assessment
4. Professional-labor culture	UC-1 Capable of conducting critical analysis of problem situations based on a systems approach and developing an action strategy UC-2 Capable of managing a project at all stages of its life cycle UC-3 Capable of organising and leading a team, developing a team strategy to achieve the set objective UC-6 Capable of identifying and realising the priorities of one's own activities and ways of improving them based on self-assessment
5. Professionalism	OPC-1 Capable of formulating research objectives and tasks, identifying task-solving priorities, and selecting evaluation criteria OPC-2. Capable of applying modern research methods, evaluating and presenting the results of completed work PC-1 Capable of participating in research and development activities in the field of electrical power engineering

	Personal growth	UC-1	Able to manage one's time, build and implement a trajectory of self-development in professional and public life. Ready to fully manage one's own resources in social and professional activities. Able to interact with participants of professional relations within the framework of professional activity.
		UC-1, UC-6	Able to carry out professional activities based on specialized scientific knowledge. Possesses a high level of self-organization, shows interest and activity, constantly strives for self-affirmation and self-realization. Able to revise one's own positions in the context of the development of science and changing social practice. Able to engage in professional development and improvement, self-education throughout life.
	Professional-labor culture	UC-1, UC-2	Able to search for, critically analyze, and synthesize information, apply a systems approach to solve assigned tasks. Able to monitor and evaluate the results of one's professional activities, identify and correct difficulties in work. Able to use psychological and pedagogical technologies in professional activities necessary for individualization of activities.
		UC-3	Possesses knowledge of the patterns of economic life of modern society, problems of functioning of economic systems, value foundations of economic and labor activity, is able to analyze major economic events. Able to engage in project activities based on a systems approach.
		UC-4	Able to realize social responsibility for the impact and result of one's work on nature and society, and environmental safety of the environment..
		UC-1, UC-6	

	Professionalism	PC-3 PC-1 OPC-1, OPC-2, PC-1	Realizes the personal and social significance of the acquired profession. Able to analyze and critically perceive information, use received information for forecasting. Possesses skills of non-judgmental judgment, tolerance for differences and uncertainty, flexibility and adaptability of behavior. Shows empathy for others, is able to reflect on one's own emotions and past experience. Possesses up-to-date knowledge about project activities, building and functioning of communities, new economic markets and the employment process, as well as the ability to apply this information in practice. Shows understanding of labor market development processes, readiness to go through various stages of employment, as well as skills of adaptation to work in a team with a new work collective. Able to independently form an individual trajectory of professional and personal development, career building, and acquiring additional knowledge and competencies depending on the emergence of a personal educational request. Able to formulate goals and objectives of research, identify priorities for solving problems, choose evaluation criteria. Able to apply modern research methods, evaluate and present the results of completed work. Able to analyze and summarize scientific and technical information on the research topic, choose methodologies and means for solving research problems, conduct patent research to ensure the patent purity of new developments. Able to perform calculations of performance indicators of electrical equipment and its systems.

3.2. Assessment of students' mastery of the education program within the main educational program

Input control - diagnostics of students' abilities and interests (testing, questionnaires, sociometry, survey).

Ongoing control - pedagogical observation during events, pedagogical analysis of creative works and student events organized in the chosen format, formation and analysis of the student's portfolio; placement of the portfolio in the university's electronic educational environment.

№	Module	Competencies	Planned Events
1	Civicness, morality, patriotism	UC-1 is able to carry out a critical analysis of problematic situations based on a systems approach, develop a strategy of actions UC-5 is able to analyze and consider cultural diversity in the process of intercultural interaction	1. Spartakiade "NCFU Rector's Cup" among institute team teams 2. Sports leagues of NCFU in volleyball, basketball, mini-football 3. Range of events within the framework of the All-Russian volunteer campaign "Spring Week of Kindness" 4. Youth festival of cultures of the peoples of the NCFD "House of Friendship" 5. Organization of an active summer health campaign "Student Summer" 6. Organization and holding of a meeting of students with the heads of national-cultural organizations 7. Participation in the NCFU column in the Great Victory Parade 8. Festive events dedicated to "Knowledge Day" at NCFU
2	Civil-legal culture	UC-3 is able to organize and lead team work, developing a team strategy to achieve the set goal UC-4 is able to apply modern communication technologies, including in foreign language(s), for academic and professional interaction UC-5 is able to analyze and consider cultural diversity in the process of intercultural interaction	1. Range of events "My Rights are My Wealth" 2. Events on countering corruption 3. Range of events aimed at preventing national and religious extremism, terrorism and xenophobia

1 Competencies are indicated in accordance with the curriculum of the educational program.

3	Personal growth	UC-1 is able to carry out a critical analysis of problematic situations based on a systems approach, develop a strategy of actions UC-6 is able to determine and implement priorities of one's own activities and ways to improve them based on self-assessment	1. Preparation and implementation of training programs for personal growth 2. Regional preparatory stage of the youth projects competition "Fair of Youth Projects" 3. Participation in off-site training seminars for members of the Assembly of the NCFU Student Council 4. Participation of students in the summer forum campaign 5. Participation of students in regional and all-Russian events 6. Interregional camp for student self-governance and personal development "Vector" 7. Educational intensive for the activists of student associations of NCFU 8. Educational project "Training Marathon"
4	Professional-labor culture	UC-1 is able to carry out a critical analysis of problematic situations based on a systems approach, develop a strategy of actions UC-2 is able to manage a project at all stages of its life cycle UC-3 is able to organize and lead team work, developing a team strategy to achieve the set goal UC-6 is able to determine and implement priorities of one's own activities and ways to improve them based on self-assessment	1. Networking session of grant recipients and experts 2. University contest and awards ceremony "Pride of NCFU" 3. Participation of students in the North Caucasus Youth Forum "Mashuk" 4. School of project activities "Step-2035" 5. School of the Speaker 6. Participation of NCFU students in the youth forum of the NCFD "Trade Union Perspective"

5	Professionalism	GPC-1 Able to formulate goals and objectives of research, identify priorities for solving problems, choose evaluation criteria GPC-2 Able to apply modern research methods, evaluate and present the results of completed work PC-1 Able to participate in research activities in the field of electric power engineering.	1. Participation in the "I am a Professional" Olympiad 2. Championship on solving business cases "Case-Room 'Facets'" 3. Educational course "Career Trajectory" 4. Job Fair "Career Day" 5. Information campaign "Career Trajectory" 6. Program for forming the student personnel reserve of NCFU "K-Labs Personnel Program" 7. Career Days 8. Qualifying stage of the International Engineering Championship "Case-in" at the North Caucasus Federal University 9. Autumn Cup of the International Engineering Championship "Case-in" 10. Participation of master's students in events of the joint work plan of PJSC "FGC UES" and JSC "SO UES" on the basis of the events of the Youth Section of the RNC CIGRE and the plan of student events of JSC "SO UES" 11. Series of meetings with employers "Dialogue on Equal Terms"
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4. CALENDAR PLAN OF EDUCATIONAL WORK DURING THE IMPLEMENTATION OF THE EDUCATIONAL PROGRAM

The calendar plan is presented in Appendix 2.

5 LIST OF RESOURCES REQUIRED FOR THE IMPLEMENTATION OF THE EDUCATIONAL PROCESS

5.1. Resource provision for the implementation of the Education Program

Resource provision enabling the full implementation of the Education Program at NCFU and the content part of educational activities includes the following types: regulatory and legal support; staffing; financial support; information support; scientific, methodological and educational-methodological support; material and technical support.

5.2. Regulatory and legal support

The regulatory and legal support for the work program of education of the educational program in the field is the Education Program at the Federal State Autonomous Educational Institution of Higher Education "North Caucasus Federal University" (approved by decision of the Academic Council of NCFU, Minutes No. 14 of May 27, 2021).

5.3. Staffing

A key component of the structure of the educational system is the human resources potential of educational activities at the university, which includes teachers, cultural and art workers, sports community workers, professional psychologists and educators, managers and administrators, and organizers.

Coordination, organization and implementation of the education program for the educational program:

- **at the institute (faculty) level** – deputy director of the institute / dean (of the faculty) for educational / academic-educational work;
- **at the department level** – heads of department, deputy heads of department for educational work / persons responsible for educational work at the department;
- **at the academic group level** – curators of academic groups (1st-2nd years), deputy heads of department for educational work / persons responsible for educational work at the department (in academic groups above 2nd year).

Student self-government bodies (Student Council of NCFU, Trade Union Committee of Students and Postgraduates of NCFU) at all levels participate in the implementation of the Education Program at NCFU.

5.4. Financial support

The Education Program is implemented through targeted cultural, mass, physical education, sports, and health-related work with students and applies equally to all students, regardless of the sources of funding for educational programs.

Financial support for the implementation of the education program for the educational program in the field of study 13.03.02 "Electric Power Engineering and Electrical Engineering" in terms of covering costs is formed taking into account the requirements of federal regulations and local acts of the university.

5.5. Information support

The content of information support as a type of resource provision for the implementation of the work program of education includes:

- informing students, teachers and staff of the graduating department about planned and past educational events and activities on the official university website – in the sections "Student Life News", "Student Events of the Graduating Department", etc., as well as on social media pages;
- other information – NCFU announcements, NCFU notices.

5.6. Scientific, methodological and educational-methodological support

The content of scientific, methodological and educational-methodological support for the education program for the educational program 13.03.02 "Electric Power Engineering and Electrical Engineering" is presented by educational-methodological and methodological manuals and recommendations for organizing educational work with students.

5.7. Material and technical support

The content of material and technical support as a type of resource provision for the implementation of the work program of education includes:

1. Educational and classroom fund for conducting training sessions, equipped with multimedia and specialized equipment, technical teaching aids, visual aids, simulation technological equipment;
2. Rooms for independent work of students, equipped with computer equipment with the

ability to connect to the Internet and providing access to the electronic information and educational environment of NCFU;

3. Library collection of printed publications, electronic educational resources, professional databases, information reference systems;

4. Unhindered access, specialized portable equipment adapted to health limitations, special needs of students with disabilities and persons with limited health capabilities;

5. Material and technical base and resources of partner organizations, employers, representatives of the professional community.

6. INFRASTRUCTURE OF NCFU ENSURING THE IMPLEMENTATION OF THE WORK PROGRAM OF EDUCATION

INFRASTRUCTURE OF NCFU ENSURING THE IMPLEMENTATION OF THE WORK PROGRAM OF EDUCATION

6.1. Sociocultural space. Networking with organizations, social institutions and educational subjects

The infrastructure of NCFU that ensures the implementation of the Education Program includes:

- educational space (classrooms, computer labs, educational laboratories, specialized rooms, computer language labs, plaster casting workshop);
- research and education centers (REC);
- problem research laboratories;
- research laboratories;
- support services (transport, communications, catering, etc.).

On the territory of NCFU there are a number of sports facilities, namely: gymnastics hall, game sports hall, weightlifting hall, wrestling hall, physical therapy hall, swimming pool, Burevestnik stadium.

Also, located in the university buildings are: concert halls, archaeology museum, research and education center "Museum of Regional Literature and Literary Local History", geological museum, zoological museum, NCFU museum, museum center.

In addition, the university has named centers: A.I. Ilchenko Comprehensive Center for Training and Innovation in Energy Efficiency, interactive platform "Territory of Mutual Understanding", collective work space "Boiling Point of the North Caucasus Federal University", specialized competence center "Young Professionals" in the competence "Electronics", resource educational and methodological center for training disabled persons and persons with limited health capabilities, student innovation center "GranIT", center for linguistic expertise and testing in Russian, center for psychological support of personal and professional development, mass media center, educational laboratory "Technical Means of Customs Control", business games center, laboratory "Shooting Range", youth center for innovative technologies of territorial design, research and education center for customs and logistics service, educational laboratory "Service Technologies", forensic training ground, forensic laboratory, mock courtroom, research and educational laboratory "Ecoanalytical Laboratory", international research laboratory "Electro and Baromembrane Technologies", educational center "Virtual Worlds", educational and research laboratory "Robotic Systems", which ensure the implementation of the Education Program.

The university provides ample opportunities for effective self-realization of student youth:

- through the activities of student and youth associations, creative teams and sports sections;
- by developing infrastructure for student design and modeling;
- through the harmonious integration of innovative forms of educational work into existing practices.

Strengthening event-based educational activities at the university contributes to the creation of a sociocultural environment that allows forming a corporate culture, implementing innovative directions and forms of educational work with youth, aimed at maximizing the number of students involved in extracurricular and educational activities, through effective, methodologically sound and

coordinated joint work of the university's administrative structures and student self-government bodies, building a trajectory of partnership relations based on mutual cooperation.

6.2. Sociocultural space

The sociocultural space as a space mastered by society for the dissemination of a certain cultural area, used in the education of NCFU students, includes: Stavropol Palace of Culture and Sports, Palace of Children's Creativity, Stavropol State Historical, Cultural and Natural Landscape Museum-Reserve named after G.N. Prozritelev and G.K. Prave, Stavropol Regional Museum of Fine Arts, Museum and Exhibition Complex "Russia – My History", Art Gallery of Landscapes by Honored Artist of Russia P.M. Grechishkin, Art Gallery "Parshin", Museum of the History of the Cossacks, monuments, historical and architectural objects (churches), Stavropol Academic Order of the Badge of Honour Theatre named after M.Y. Lermontov, "Salyut" Cinema, Cinema Park Kosmos, "Etazhi" Cinema, Stavropol Scientific Library named after M.Y. Lermontov, Central Library of Stavropol Centralized Library System, Stavropol Swimming Pool "Yunost", Sports and Recreation Building of NCFU, Ice Rink "Victoria", Stavropol-Arena Ice Rink, "Dynamo" Stadium, "Spartak" Sports Complex, etc., having a certain level of student involvement in active social relations.

6.3. Networking with organizations, social institutions and educational subjects

The goal of networking between NCFU and social partners is the conscious and successful personal self-determination and self-realization of students and university graduates in accordance with their individual inclinations, abilities and needs, as well as the objective situation in the labor market; expanding opportunities for students to build individual educational routes and activating their cognitive interests to achieve successful personal results, including through participation in innovative projects.

List of social partners:

1. **At the federal level:** Autonomous Non-Profit Organization "Russia – Land of Opportunity"; Federal Agency for Youth Affairs; All-Russian Public Organization "Russian Union of Youth"; Association of Student Sports Clubs of Russia; All-Russian Public Youth Movement "Association of Students and Student Associations of Russia"; Russian Student Sports Union.

2. **At the regional level:** Department for Youth Policy of the Administration of the Government of the Stavropol Krai; Committee for Culture and Youth Policy of the Administration of the City of Stavropol; other public organizations and associations.

Volume of implementation of event-based activities (academic disciplines and educational events)

Modules	Year									
	1		2		3	4	5	6		
Магистратура, специалности	Модуль 1 – 15% Модуль 2 – 15% Модуль 3 – 30% Модуль 4 – 40%	At least 16 events, of which:		Module 1 – 10% Module 2 – 10% Module 3 – 10% Module 4 – 30% Module 5 – 40%	At least 14 events, of which:					
		Academic Discipline (quantity)	Calendar Plan Events (quantity)		Academic Discipline (quantity)	Calendar Plan Events (quantity)				