#### Scientific and Educational Centre "NMSTU EXTEND Centre"

Scientific and Educational Centre "NMSTU EXTEND Centre" was established within the framework of the international educational project Erasmus + Capacity Building in Higher Education EXTEND 586060-EPP-1-2017- RO-EPPKA2-CBHE JP "Excellence in Engineering Education through Teacher Training and New Pedagogical Approaches in Russia and Tajikistan" and opened on February 14, 2020 in order to combine the efforts and resources of the EXTEND centres network.

## The main goals and objectives of Scientific and Educational Centre "NMSTU EXTEND Centre" are:

- research, elaboration and implementation of modern methods and approaches in the field of engineering and pedagogical innovations in accordance with the priority areas of world science;
- application of modern pedagogical approaches in the elaboration and building of foreign language professional competence, ICT competence, etc.;
- improvement of the process of forming and building NMSTU students' and young scientists' skills and experience in the field of pedagogical innovations based on the best European experience;
- involvement of research and teaching staff of NMSTU and other stakeholders in professional elaboration of programs, professional retraining, programs for improving language competence and participation in scientific and practical conferences, seminars and discussion platforms;
- elaboration of cooperation with domestic and foreign educational institutions and scientific organizations;
  - conducting scientific and methodological research;
- organizing, conducting and participating in conferences, meetings, symposiums, seminars, master classes, schools and other scientific and educational events;
  - providing access to the network resources of the project EXTEND centers.

The rationale for the establishment of Scientific and Educational Centre "NMSTU EXTEND Centre" is a Partnership Agreement and a Grant Agreement of the international educational project Erasmus + Capacity Building in Higher Education EXTEND 586060-EPP-1-2017- RO-EPPKA2-CBHE JP "Excellence in Engineering Education through Teacher Training and New Pedagogical Approaches in Russia and Tajikistan".

Scientific and Educational Centre "NMSTU EXTEND Centre" is established, reorganized and closed by the rector's order in accordance with the established procedure. Scientific and Educational Centre "NMSTU EXTEND Centre" is organized on the terms of self-financing without the introduction of staff units in the staffing table of NMSTU. Payment for work performed for attracted employees is carried out on the basis of hourly wage contracts. Research and Scientific Centre "EXTEND-Center of Nosov Magnitogorsk State Technical University" Research and Scientific Centre "EXTEND-Center of Nosov Magnitogorsk State Technical University" is a part of the Institute of Humanities, the director of Research and Scientific Centre "EXTEND-Center of Nosov Magnitogorsk State Technical University" reports directly to the director of the Institute of Humanities. In its activities, Research and Scientific Centre is guided by the current regulatory and technical documentation, internal documents of the university and the orders of the rector.



The material and technical base of the structural unit includes a multimedia room # 327 (Address: 26 Lenin Ave., Magnitogorsk) with installed equipment purchased as part of the EXTEND project.

#### **Personnel support**

Name	Specialty (according to	Academic degree	Title	Work experience	Documents
Orinina Larisa Vladimirovna	diploma) Teacher of Russian language and literature	PhD in Pedagogy	Assoc.Prof.	General experience  - 20 years, pedagogical experience - 20 years, at NMSTU - 20 years	BBC 0222245, issued by the State Attestation Commission of June 20th, 2001
Kashuba Inessa Valeryevna	Mechanical Engineering	PhD in Pedagogy	Assoc.Prof.	General experience – 29 years	Diploma of higher education УВ# 031790 Diploma of PhD KT # 143200 Associate Professor ДЦ 030218
Savinova Yulia Anatolyevna	Foreign languages	PhD in Pedagogy	Assoc.Prof.	General experience – 25 years	Diploma of higher education #527257 Diploma of Candidate of Sciences KT # 0914444
Zerkina Natalia	Foreign languages	PhD in Philology	Assoc.Prof.	General experience – 27 years	Diploma of higher

Nikolaevna					education 3B # 073717 Diploma Candidate Sciences KT #017301 Diploma Associate Professor	of of
Samorokova Irina Vladimirovna	Mathematics and Physics	PhD in Pedagogy	Assoc.Prof.	General experience – 31 years	ДЦ # 003975 Diploma higher education	of
					УВ # 330070 Diploma Candidate Sciences KT #113313 Diploma Associate Professor ДЦ # 002522	of of

# Advantages of interaction with Research and Scientific Centre "EXTEND-Centre of Nosov Magnitogorsk State Technical University":

Scientific and Educational Centre "NMSTU EXTEND Centre" provides:

- technical support and a working platform for various scientific and professional events for students, PhD students, university teachers and other interested parties;
- access to the international network of EXTEND centres, their resources and educational courses, such as: "Project Based Learning", "E-learning and ICT-tools"; "Foreign Language for Engineering. Academic Writing"; "Research Based Learning Strategies"; "Curriculum Design and Elaboration"; "Assessment", "Communication".
- building of temporary research and educational teams to solve scientific and educational tasks:
- involvement of scientific and pedagogical staff, researchers and other employees of the university and specialists of third-party organizations in the implementation of research, scientific and educational work, on a part-time basis and contracts, etc.

# **Events held at Research and Scientific Centre "EXTEND-Centre of Nosov Magnitogorsk State Technical University"**

#	Work/service	Terms of	Participants			Contacts	
	performed	Implementation					
1	The course "Foreig	n 2019-2020	University	teachers	and	PhD	Savinova Iuliia,
	Language fo	r	students	of	engine	eering	Zerkina Natalia
	Engineering. Academi		specialties	(NMS	TU)	- 20	

	Writing" was elaborated, piloted and implemented on line and off line		persons	
2	Grand opening ceremony of Research and Scientific Centre "EXTEND-Center of Nosov Magnitogorsk State Technical University"	February 14 <sup>th</sup> 2020	NMSTU authorities (10 persons), teaching staff (25 persons), students (25 persons), representatives of mass media (10 persons)	Director of Scientific and Research Centre "NMSTU EXTEND Centre" Orinina Larisa, Savinova Iuliia, Zerkina Natalia, Ruban Konstantin, Inessa Kashuba
3	Master class on preparing students of the 11th grade to pass the Unified State Exam on English	March 23 <sup>rd</sup> 2020	students of the 11th grade from Magnitogorsk schools (45 persons), English language teachers (10 persons)	Director of Scientific and Research Centre "NMSTU EXTEND Centre" Orinina Larisa
4	I International Scientific and Practical Online Conference "The Use of Modern Distance Learning in the Educational Systems of Russia and Tajikistan»	May 15 <sup>th</sup> 2020	Students of the Institute of Economics and Management (23 persons), NMSTU teaching staff (5 persons), university partners from Tajik National University, Technological University of Tajikistan and Kulob State University from Tajikistan (6 persons), university partners from University Politehnica of Bucharest (Romania), 2 persons	Director of Scientific and Research Centre "NMSTU EXTEND Centre" Orinina Larisa
5	Socio-psychological training for 3rd year students on the prevention of emotional burnout (group IPOB-18-7)	September 4 <sup>th</sup> 2020	Students of group IPOB-18-7 (26 persons)	Director of Scientific and Research Centre "NMSTU EXTEND Centre" Orinina Larisa
6	Master class for teachers of secondary schools and institutions of supplementary education in	September 6 <sup>th</sup> 2020	Teachers and methodists from Magnitogorsk schools	Director of Scientific and Research Centre "NMSTU EXTEND

	Magnitogorsk "Modern simulators for			Centre" Orinina Larisa
	emotional intelligence building in teachers' work"			Zuriou
7	Program of advanced training "Trends and IT technologies of modern education in teaching specialized disciplines"	March 11 <sup>th</sup> -30 <sup>th</sup> 2021	Trends and IT technologies of modern education in teaching specialized disciplines	Institute of Humanities

LONG-TERM PLAN FOR SUSTAINABLE DEVELOPMENT OF SCIENTIFIC AND EDUCATIONAL CENTRE "NMSTU EXTEND Centre" (Director: L.V. Orinina)

SCIENTIFIC AND EDUCATIONAL CENTRE "NMSTU EXTEND Centre" was established on February 14, 2020 in order to combine the efforts and resources of the network of EXTEND Centres of the Project and NMSTU EXTEND Centre. The basis for setting up SCIENTIFIC AND EDUCATIONAL CENTRE "NMSTU EXTEND Centre" is a Partnership Agreement for the international educational project Erasmus + Capacity Building in Higher Education EXTEND 586060-EPP-1-2017- RO-EPPKA2-CBHE JP "Excellence in Engineering Education through Teacher Training and New Pedagogical Approaches in Russia and Tajikistan" with NMSTU on its establishment.

## SCIENTIFIC AND EDUCATIONAL CENTRE "NMSTU EXTEND Centre" was created for:

- -research, development and implementation of modern methods and approaches in the field of engineering, pedagogical innovations in accordance with the priority directions of world science;
- -application of modern pedagogical approaches in building foreign language, professional competence, ICT competence, etc.;
- -improvement of the process of building skills of NMSTU students and young scientists in the field of pedagogical innovation based on the best European experience;
- -involvement of scientific and pedagogical staff of NMSTU and other interested stakeholders in advanced training programs, professional retraining, language competence improvement programs and participation in scientific and practical conferences, seminars and discussion platforms;
- development of cooperation with domestic and foreign educational institutions and scientific organizations;
  - conducting scientific and methodological research;
- organizing, conducting and participating in conferences, meetings, symposia, seminars, master classes, schools and other scientific and educational events.

#### The main objectives of the division are the following:

- -development and implementation in the educational process online courses ("Project Based Learning", "E-learning and ICT-tools"; "Foreign Language for Engineering. Academic Writing"; "Research Based Learning Strategies"; "Curriculum Design and Development"; "Assessment", "Communication") in cooperation with other universities of the consortium;
- -development and introduction into the educational practice of the university the modern methods and approaches in the field of engineering, pedagogical innovations in accordance with the priority areas of world science; development of advanced training programs for these online courses, as well as the involvement of scientific and pedagogical staff of NMSTU;
- development of cooperation with domestic and foreign educational institutions and scientific organizations within the framework of academic mobility programs for teachers and students;
- -organization and holding conferences, meetings, symposiums, seminars, master classes, schools and other scientific and educational events;

- -development and application of innovative pedagogical approaches in building psychological and pedagogical, foreign language, IT and communication competencies of university graduates;
- -improving the process of developing skills of NMSTU students and young scientists in the field of pedagogical innovations based on the best European experience.

#### **Advantages of interaction with the Department:**

Advantages for partners, customers (professionalism, experience, unique opportunities).

- -organization and control of the progress of scientific research, development and implementation of new educational technologies in the educational process of the university;
- -dissemination of information designed to ensure the improvement of the thematic content and content of the Centre activities, its methodological support;
  - -participation in various meetings on issues related to work in the Centre;
- formation of temporary scientific and educational teams to solve scientific and educational tasks;
- -involvement of scientific and pedagogical workers, researchers, university staff and other interested stakeholders in the performance of research, scientific and educational work, including on the terms of part-time work and contract agreements.

#### THE STRATEGIC LEVEL OF NMSTU EXTEND CENTER:

- -implementation of research projects, including on international platforms;
- implementation of academic mobility programs for teachers and students;
- -implementation of project activities: projects carried out jointly with stakeholders of the city: "Green Economy", "Comfortable environment", "ICT technologies and machine intelligence", "Clean City", "Health-saving architecture";
  - -implementation of career guidance work.

#### THE LEVEL OF PUBLIC RELATIONS:

- -organization of media interaction with the media of the city and region;
- organizing and holding meetings with representatives of industrial and other leading organizations of the city and region on the basis of the EXTEND Centre;
- -increasing the informational and corporate attractiveness of the university through the interaction of the EXTEND Centre with other structural units of the university: VR/AR Center, volunteer center, laboratory of innovative developments, Student Research Center, Student business Incubator and others.

#### ACADEMIC LEVEL OF THE EXTEND CENTER:

- -introduction of online courses of the EXTEND project into the educational process;
- implementation of inclusive education programs;
- implementation of programs of additional professional education and professional retraining of specialists;

-implementation of training programs for applicants in engineering areas within the framework of the NMSTU Design School and the Faculty of Additional Professional training.

### **Nosov Magnitogorsk State Technical University**

	Bus	NMSTU EXTEND Cente	r				
Key partners	Key activities	Value Proposition	Customer relationships	Customers segments			
✓ Industries ✓ Ministry of Education and science ✓ Ministry of industry ✓ Employees/companie ✓ Extend partners ✓ Local authorities ✓ Ministry of Labor Migration and Employment✓	✓ teaching ✓ consulting ✓ training ✓ programing ✓ connecting ✓ analyzing and publishing results   Key resources ✓ Intellectual capital ✓ advanced equipment ✓ Unified center ✓ Huge technical opportunities	<ul> <li>✓ Recognition</li> <li>✓ Placement         opportunity</li> <li>✓ Unified Center         <ul> <li>increase research               opportunities and                  best get results</li> <li>✓ Distance learning,</li> <li>✓ MOOCs</li> <li>✓ Virtual Mobility</li> <li>✓ Designing</li> <li>✓ international                   mobility</li> </ul> </li> <li>✓ real practices in                   best center for                   students</li> </ul>	✓ Ministry's permission ✓ Rector's order ✓ Volunteering ✓ involving interested and motivated staff ✓  Channels ✓ Website ✓ Mass Media ✓ Social Media ✓ Former students ✓ Alumni Union ✓ conferences and seminars ✓ personal interactives ✓ Journals	✓ Teachers ✓ Students ✓ industries ✓ partners ✓ universities ✓ community			
Cost structure	Cost structure			Revenue Stream			
<ul> <li>✓ Fixed cost</li> <li>✓ Variable costs</li> <li>✓ software developmen</li> <li>✓ equipping and mainta</li> <li>✓ Time</li> <li>✓ opportunity cost</li> </ul>	✓ Co-f ✓ Lice	and project funding funding from University nsing e outsourced					