

Dear graduates of schools!
National Metallurgical Academy of Ukraine
and the
**Faculty of physical metallurgy and treatment of
metals**

Invite you to get a higher education qualification level
**BACHELOR
BY SPECIALTY**
132 - MATERIAL SCIENCE

Dear graduates of schools, we invite you to receive a prestigious higher education in the National Metallurgical Academy of Ukraine (NMetAU) in the specialty 132 - Materials Science.

For admission to specialty 132 - Materials Science you need to pass the exams in the following disciplines:

- 1 - Ukrainian language and literature;
- 2 - Mathematics;
- 3 - Physics or foreign language;

Please note that during joining NMetAU in 2019, exams certificates received in 2017 and 2018 are accepted (for a foreign language - only in 2019).

We inform you that in NMetAU there are courses for preparing for external independent testing (tel. +38 (056) 744-70-51, +38(068) 544-25-85. the formation of groups occurs on an ongoing basis.

Modern materials science is a science about the structure and properties of materials created by human civilization for all time of its existence. The variety of surrounding metal and nonmetallic materials is so great that even their brief description takes hundreds of volumes.

Only specially trained person who knows the basic laws of the creation of materials can understand this information.

Currently, materials science occupies the second place in the world rating system of priority branches of knowledge, second only to computer technologies, but it should be noted that progress in creating new computing systems is also based on a new generation of nanostructured semiconductor and other fine-film materials that make up a special section of materials science .

Materials science is an international science. There is no country in the world, it would not contribute to the common pool of knowledge about materials. Therefore, the training of materials specialists is carried out in close contact with leading educational institutions in Germany, the United States, Great Britain, Poland, etc. In the learning process, students visit foreign educational institutions, many of whom have signed joint training agreements.

There are teachers - professors and associate professors - who are leading world-renowned scientists who lead research directions in the creation of new and improved materials at the Faculty of Physical Metallurgy and Treatment of Metals. The students of the faculty have the opportunity to participate in scientific experiments on the creation of new materials or technologies for their production, their heat treatment and the development of methods for the effective protection of materials against corrosion and continue this work in the magistracy and full-time or part-time postgraduate studies.

Obtained knowledge allows our graduates to:

- successfully analyze and establish the optimal ratio between the chemical composition of materials, their structure, physico-mechanical and special properties;
- purposefully choose from known the most effective metals and alloys, depending on the requirements, indicated by the operating conditions

and the specified technology for manufacturing products from them;

- management of technological processes of heat treatment and combined treatment of materials.

The knowledge and abilities obtained during training and practice by material science students allow them, after graduating from higher education institutions, to work in manufacturing enterprises of the metallurgical, engineering, construction, aerospace and other industries, scientific, educational and design institutions, research laboratories and certification centers for metal products, expert services, commercial structures whose business activity relates to operations with materials of various uses.

Introductory courses and training tests in our Academy significantly increase the probability of successful admission of the prestigious specialty.

If you are persistent in learning and further life, our education will allow you to achieve career growth, high salaries.

Our website - www.dmeti.dp.ua

Contacts:

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The world is continuously and rapidly developing. The level of development of society and increasing its well-being is determined by the performance of various industries. Therefore, scientists and manufacturers of all developed countries of the world are faced with the task of achieving a new level of physical, chemical, mechanical, technological and operational properties in materials of metallurgical products, machine-building, shipbuilding, rocket-aviation, construction, textile, food and other industries in order to increase production competitiveness while reducing its costs.

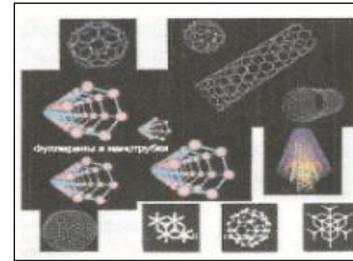


THESE PROBLEMS ARE SOLVED BY MATERIALS SCIENCE - THE SCIENCE IS ABOUT:

- the structure of materials (their composition and properties) - methods of controlling the composition and structure of metallic and non-metallic materials;
- the effect of composition and structure on the properties of materials;

At the National Metallurgical Academy of Ukraine, one of the most important and large faculties is called the **Faculty of physical metallurgy and treatment of metals** (established in 1930 and was previously called the Faculty of Technology). The leading speciality on this faculty is **132 - MATERIAL SCIENCE**.

Nanomaterials are materials created using nanoparticles by nanotechnology. They have any unique properties due to the presence of these particles in the material. Materials scientists invent and research them to create instruments, systems with fundamentally new, almost fantastic properties. The properties of nanomaterials, as a rule, differ from similar materials in a bulk state. For example, in nanomaterials changes in magnetic, heat, and electrically conductive properties is observed. Examples of nanomaterials are carbon nanotubes, carbon fiber, fullerenes, graphene, nanocrystals, aerogel, etc.



In the conditions of the energy crisis, the imminent increase in the efficiency of energy use from various sources occurs through the introduction of materials with high absorption capacity, heat transfer and mass transfer in the adsorbent layer into power plants.

Due to technology, materials scientists are developing with the help of nanotechnology, automakers can implement concepts with new economic and high-strength engines, light alloy wheels, unique tires made from special rubber, electric cars, etc.



Students of the faculty with a businessman and philanthropist VM Pinchuk

Only using new ultra-light and heat-resistant alloys when designing, designers of aviation and astronautics have the opportunity to create faster and more reliable planes, helicopters, rockets and satellites.



Students of the Faculty with Tony Blair



Graduated staff (bachelors, masters, candidates of science) hold top positions in significant enterprises that are leaders worldwide: in Ukraine, USA, Canada, PRC, Germany, Finland, Poland, etc.

Materials scientists holds the world in their palms

