



COURSE: Basics of technology of the protective coatings formation

LECTURERS:

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LANGUAGES OF EDUCATION: Russian, English.

SUBJECT of educational course: Physical and chemical bases of protective coatings formation technology, their properties, characteristics and application in the industrial, technological and scientific research activities.



THE GOAL of the course includes formation of following **abilities** of students:

- ❖ knowledge of physical and chemical bases of protective coatings formation technology, their properties, characteristics and applications for use in industrial-technological and research activities;
- ❖ ability to formulate coatings, which solve the problem of cavitation, icing, dirt-uptake, fouling;
- ❖ ability to apply profiled knowledge for the purposes of insulation, blackout and the creation of sources of light, temperature measurement, regulation of optical and physiological activity of materials, the decision of some sanitary problems.

MAIN TASK OF EDUCATIONAL COURSE

In accordance to demands of educational-professional program, after the finishing of this course must demonstrate such learning outcomes:

Knowledge:

- ✓ features of protective coatings formation technology;
- ✓ scientific bases of special regimes of thermal and wet processing et al.
- ✓ the role of the coating as a means of materials protection.

Experience:

- ✓ use of special purpose coatings: chemical, heat, frost, fire and radiation-resistant, anti-friction, anti-adhesion, damper, photoactive and optically transparent, camouflage, de-icing etc.

COURSE DURATION: 18 academic hours of lectures; 18 academic hours of seminars.

REQUIREMENTS TO STUDENTS: knowledge in the field of organic chemistry, physical chemistry, general and inorganic chemistry, physical and colloid chemistry, surface chemistry.

