

BUILDING MATERIALS SCIENCE

(course title)

COURSE SYLLABUS ABSTRACT

Speciality 6-05-0732-02 – Real estate expertise and management

	STUDY MODE
	full-time
Year	2
Semester	3,4
Lectures, hours	68
Laboratory classes, hours	50
In-class test (semester, hours)	-
Pass/fail, semester	3
Exam, semester	4
Contact hours	118
Independent study, hours	98
Total course duration in hours / credit units	216/6

1. Course outline

Study of materials used in the construction, reconstruction, repair and maintenance of buildings and structures, as well as the requirements for these materials

2. Course learning outcomes

Upon completion of the course, students will be expected to

know: - the range of building materials and products; - fundamentals of technologies for the production of building materials and products; - the mechanism of formation of the structure and properties of materials; - the main qualitative characteristics of building materials; - the determining influence of the quality of materials and products on the durability and reliability of building structures; - rules of transportation and storage; - the intended purpose and use of various building materials and products. raw materials for the production of materials.

be able to: - freely navigate the diverse range of building materials and products, which is represented in the Republic of Belarus and on world markets; - correctly evaluate the main quality indicators of building materials and products with numerical characteristics and understand well the methods of their determination; - determine the main qualitative characteristics of building materials, taking into account the requirements of technical regulatory legal acts (TNPA) on metrology, certification and standardization; - choose building materials for various construction and operation conditions in accordance with the existing range of products and structures; - to carry out the justification and selection of rational technological and technical solutions, taking into account economic, organizational and environmental aspects; - to predict the reliability and durability of building materials in various operating conditions; - organize production control at all stages of the technological process.

have the skill to: methods and methods of studying the properties of building materials and products; - skills in performing experimental and theoretical research; - techniques for optimizing the composition of materials and their production technology; - organizational skills in managing the production of building materials; - the principles of increasing the service life of building materials, products and structures at the stages of their manufacture and operation.

3. Competencies

Apply modern methods and approaches in the field of construction technologies, structures and materials to solve engineering and construction tasks

4. Requirements and forms of midcourse evaluation and summative assessment

The current certification of students is carried out to determine the compliance of the results of their educational activities with the requirements of educational standards, educational and program documentation of educational programs of higher education. The forms of the current certification of students are a credit and an exam. The current certification is carried out orally or orally in writing. The form of intermediate certification is the protection of laboratory work, which is carried out in writing in the form of test tasks.