BUILDING MATERIALS SCIENCE

(course title)

COURSE SYLLABUS ABSTRACT

Speciality 7-07-07.32-01 – Construction of buildings and structures

Concentration industrial and civil engineering

	STUDY MODE		
	full-time	part-time	part-time (shortened program)
Year	**2**	**2,3**	**2**
Semester	3,4	4,5	3
Lectures, hours	68	14	6
Laboratory classes, hours	68	14	6
In-class test (semester), hours	-	(5), 2 hour	(3), 2 hour
Pass/fail, semester	3	4	-
Exam, semester	4	5	3
Contacthours	136	30	14
Independentstudy, hours	80	186	202
Total course duration in hours / credit units	216/6	216/6	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:- raw materials for the production of materials;

- basic technological principles of production of materials and products;
- properties of materials and the scope of their application;
- rules of storage, transportation and economical use of materials.

*be able to:*correctly evaluate the properties of building materials and products;

- determine the basic properties of building materials, taking into account the requirements of metrology, certification and standardization;
- choose building materials in accordance with the nomenclature of products and structures for various construction, taking into account operating conditions;
- to carry out the justification and selection of rational technological and technical solutions taking into account economic, organizational and environmental aspects;
- to ensure high quality and durability of building materials and products in operational conditions.

have the skill to: - methods of selection and calculation of compositions of mortars and concretes; - solutions to materials science problems; - the use of modern materials manufactured both on the territory and outside the Republic of Belarus.

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.