

REPUBLIC OF UZBEKISTAN
MINISTRY OF HIGHER EDUCATION, SCIENCE AND INNOVATIONS
FERGANA STATE TECHNICAL UNIVERSITY

Modern construction materials and constructions

MODULE HANDBOOK

Field of knowledge :	700000	- Engineering, machining and construction industries
Educational field:	730,000	- Architecture and construction
Education program :	60730300	- Civil Engineering

Module title	Modern construction materials and constructions
Code (if available)	MBMST43
Semester(s) of module teaching	4
Responsible for the module	Atakulov Bahromjon Adxamovich , Modern construction materials and constructions Department , PhD, Associate Professor
Language of instruction	Uzbek
Connection to the curriculum	Elective
Teaching methods	lecture , practical training , independent education .
Study load (including classroom and independent study hours)	Total hours : 90 hours Auditorium hours : 34 hour Lecture – 14 hours , practical training – 20 hours , independent education – 56 hour .
Credit units	3
Required and recommended prior knowledge for studying the module	Construction materials and items , construction constructions
Module objectives/intended learning outcomes	The purpose of the module: To develop theoretical and practical knowledge in students in their fields of study, the experience gained in creating and using modern building materials and structures in our country and abroad, and the ability to study and analyze scientific and technical information. To achieve the above goal, science students will acquire theoretical knowledge, practical skills , and a thorough mastery of the necessary basic formulas; teamwork, independent and critical thinking related to the profession, a culture of communication and drawing conclusions, timely completion, compilation, and presentation of science assignments, searching for information on a given topic, and the skills of preparing and conducting presentations. The following requirements are imposed on the knowledge, skills, and qualifications of students in the subject. The student: • Production of modern building materials and structures in the Republic of Uzbekistan; • type of modern wall materials; • modern materials for curtains; • the use of biotechnology in the construction industry; • modern tombop materials; • areas of application of nanotechnology; • aims to provide a coherent and continuous education of theoretical and practical knowledge on understanding the development of building materials and technologies
Content	Module 1. Content of science . In Uzbekistan construction materials working of release condition and prospects In Uzbekistan construction materials working of release current status. Construction materials working of release prospects , in the world construction materials working in the output last achievements Module 2. Reinforced concrete working release and of use directions and prospects Reinforced concrete working release and of use directions and prospects

	Module 3. Long at the stands reinforced concrete constructions continuous molded preparation Long at the stands reinforced concrete constructions continuous molded preparation. Concretes and mixtures for chemical of additions classification Module 4. Dry construction mixtures, classification, production release technology Dry construction mixtures general concept Dry construction mixtures classification, Dry construction mixtures composition, The state of production of dry building mixtures in Uzbekistan Module 5. Modern wall-mounted materials . Modern wall materials General information. Stone wall materials, wall panels. Multilayer, wooden, monolithic walls. The use of non-removable plasterboard in the construction of buildings. Module 6. Curtains for modern materials . Curtains for modern Materials. Curtains main Classifications. Panel, slab and from blocks, frame, modular, glass blocks curtains. Wet conditions in the rooms curtains Module 7. Modern heat insulation materials Modern thermal insulation materials. Mineral, gas-formed, foamed mineral and organic thermal insulation materials with a fibrous frame. Additional insulation of various structures Module 8. Modern cosmetic construction materials . Modern cosmetic construction Materials: Aqua panel, Drywall sheets. Glass-magnesium sheets. Velox. Cement-sand sheets. Aluminium-composite lists . Module 9. Floors for modern materials . Modern materials for floors. Basic classifications (floor coverings, new technologies for laying floors, bases for floors). Underfloor heating. Cast floors. Parquet floors. Gypsum-fiberboard floors. Cork flooring. Laminate flooring. Raised floors. Linoleums. Carpeting Module 10. Modern sheet copper construction materials Definition of building materials and their role in construction, Advantages of modern building materials (lightness, thermal insulation, environmental friendliness), Current status of the use of building materials in Uzbekistan.
Forms of assessment	oral, presentation, written work, practical assignments, and final exams.
Requirements for study and assessment	To successfully complete the module, the student must attend classes and achieve the minimum scores set in the current, midterm, and final assessments.

Bibliography	12. <i>Materials for Civil and Construction Engineers FOURTH Edition In si units</i> Michael S. Mamlouk John P. Zaniewski © Pearson Education Limited 2018 13. G.T. Shiroki M. G. Bortnitskaya <i>Stroitelnye materialy i izdeliya. Textbook</i> . Minsk RIPO 2020 p.433. 14. Qasimov IM <i>Modern construction materials and constructions . Textbook</i> . Tashkent. 2020D.SH. 15. Kadyrova Binder substances <i>Textbook Tashkent -2019</i> 16. To'laganov AA, Kamilov XX, Vohidov MM, Sultanov AA <i>Modern construction materials , items and technologies . Educational manual</i> . Tashkent, TAQI, 2014. 129 p. 17. TA Otaqo'ziyev etc. “ <i>Construction materials Technology</i> ” <i>Textbook T.2019.</i> 18. I. K. Domanskoy <i>Stroitelnye materialyi izdeliya, Uchebnoe posobie Ekaterinburg 2018g</i> 19. Khabibullayev Sh.A. “ <i>Construction materials</i> ” <i>Educational manual</i> . Vol. 2020. 20. GOST25898-2020 <i>Materials for construction</i>
Reviewers	B. K. Rakhmanov - <i>Fergana State Technical University, Department of “ Construction Materials and Products ” Associate Professor (DSc);</i> Kh.Murodov – <i>EXPOFAR MCJ leader ;</i>