REPUBLIC OF UZBEKISTAN

MINISTRY OF HIGHER EDUCATION, SCIENCE AND INNOVATIONS

FERGANA STATE TECHNICAL UNIVERSITY

Computer-aided building design (Revit)

MODULE HANDBOOK

Field of knowledge:	700000	- Engineering, manufacturing and construction
Field of education:	730 000	- Architecture and construction
Education program (Major):	60730300	- Civil engineering

Fergana 2025

Module title	Computer-aided building design (Revit)
Code (if available)	CPBDT34
Semester(s) of module teaching	3
Responsible for the module	*Nasriddinov Xasan Shavkatovich – Senior lecturer, department of civil engineering*
Language of instruction	*Uzbek*
Connection to the curriculum	*Elective*
Teaching methods	*Practical sessions, independent study.*
Study load (including classroom and independent study hours)	*Total hours: 120* *Classroom hours: 48* *Lectures: 16 hours* *Practical sessions: 32 hours* *Independent study: 72 hours*
Credit units	
Required and recommended prior knowledge for studying the module	*Computer-aided building design (Revit)*
Module objectives/intended learning outcomes	**Module Objective:** To study building design based on information modeling using Revit software. The goal is to develop skills in creating, modeling, and visualizing 2D and 3D drawings using Building Information Modeling (BIM) technology. **Course Tasks:** To introduce students to the Revit interface; to teach them how to draw architectural elements such as walls, doors, windows, and roofs; to export files; and to prepare project documentation. The course "**Computer-aided building design** (**Revit**)" involves the use of computer graphics and modern information technologies in the teaching process. Throughout the course, students will work extensively with building models and mock-ups. Demonstration and instructional materials are delivered through computer software tools. Students are expected to acquire the necessary skills to independently master the subject through the use of electronic resources. Students should be able to search for relevant information in subject-specific literature, prepare presentations, and deliver them effectively.
Content	**Module 1: Introduction to Revit and Interface** – Introduction: About Revit and BIM – Interface, menus, and panels – Creating a new project, using templates, and settings – Installing Revit – Navigating and working with the interface – Setting up grids and levels **Module 2: Working with Architectural Elements** – Walls, floors, and ceilings – Inserting windows and doors – Working with model elements – Drawing walls, floors, and ceilings – Placing windows and doors – Decorations and modifications

	Module 3: Sections, Elevations, and 3D Views – 2D and 3D views – Creating sections and elevations – Annotations and visualization – Plans, elevations, and sections – Dimensions and tags – Rendering and 3D visualization **Module 4: Drawing Preparation and Export** – Sheets and layouts – Exporting to PDF and DWG – IFC data exchange – Placing views on sheets – Printing and exporting – Preparing the final project
Forms of assessment	Presentations, practical assignments, and final examinations
Requirements for study and assessment	To successfully complete the module, the student must attend classes and obtain the minimum required scores in current, midterm, and final assessments.
Bibliography	1. Daniel John Stine, Design Integration Using Autodesk Revit 2022, SDC Publications 2. Paul F. Aubin, The Aubin Academy Revit Architecture 3. ASCENT, Autodesk Revit 2022 Fundamentals 4. https://knowledge.autodesk.com/ 5. https://bimchapters.blogspot.com
Reviewers	U. A. Abdurakhmonov – Senior lecturer, PhD, Department of civil engineering, Fergana state technical university; O. J. Rakhmonov – Head of the department for construction testing laboratory and technical Condition assessment of buildings and structures, territorial inspection for supervision in the field of construction and housing and communal services of Fergana region;