COURSE PLAN

FIRST: BASIC INFORMATION

College	
College	: Karak University College
Department	: Department of Basic and Informatics Sciences
Course	
Course Title	BIM
Course Code	: 020112286
Credit Hours	1 (0 Theoretical, 1 Practical)
Prerequisite	: 020112283
Instructor	
Name	:Rozan Sameer ali alhunifat
Office No.	:-
Tel (Ext)	:-
E-mail	: rozan.sameer@bau.edu.jo
Office Hours	: -

Class Times					

Text Book

Title

A. Revit_structure_2011_user_guide_en
B. BIM Handbook: A Guide to Building Information Modeling for Owners, Designers, Engineers, Contractors, and Facility Managers, 3rd Edition,2018

References

- BIM Handbook: A Guide to Building Information Modeling for Owners, Designers, Engineers, Contractors, and Facility Managers, 3rd Edition,2018

SECOND: PROFESSIONAL INFORMATION

COURSE DESCRIPTION

This course cover working knowledge of tools and techniques related to BIM and provide methods to apply these BIM technologies to actual case projects.

COURSE OBJECTIVES

The objective of this course is to enable the student to do the following:

-Identify design requirements and the scope of BIM application
-Establish the work schedule by considering the scope of application and the level of preparation.
-Form an appropriate organization by classifying work methods such as LINK and WORKSET.
-Prepare BIM by using project templates such as view templates and BIM libraries.

COURSE LEARNING OUTCOMES

Upon the completion of this course students will be able to:

CLO1. Identify design requirements and the scope of BIM application
CLO2. Perform levels, grids and artboards
CLO3. Perform foundation and structural columns
CLO4. Perform structural floor
CLO5. Perform structural and architectural walls
CLO6. Perform architectural floors and ceilings
CLO7. Perform stairs, ramps, railings, windows, and doors
CLO8. Perform curtain wall
CLO9. Perform site components
CLO10. Perform 3D house & office building

COURSE SYLLABUS

Week	Topic	Topic details	Related LO and Reference (Chapter)	Proposed Assignments
1	Introduction.	• BIM and Autodesk Revit • Overview of the Interface • Starting Projects • Viewing Commands	CLO1	
2	Create levels, grids and artboards.	• Levels: a) Adding Levels b) Modifying Levels c) Level Properties • Grids: a) Adding Grids b) Modifying Grids c) Grid Properties	CLO2	
3	Create foundation and structural columns.	• Structural Columns: a) Creating a Structural Column Family b) Starting a Structural Column Family c) Placing a Vertical Structural Column d) Placing Slanted Structural Columns e) Locking Columns to a Grid f) Adding Structural Columns Inside g) Modifying Structural Columns	CLO3	
4	Create a structural floor	• Adding a Structural Floor or Deck • Span Direction • Adding a Span Direction • Modifying Span Direction • Openings in Structural Floors	CLO4	
5	Create structural and architectural walls.	• Structural Walls a) Creating a Structural Wall b) Modifying Structural Walls	CLO5	

Week	Topic	Topic details	Related LO and Reference (Chapter)	Proposed Assignments
		d) Defining Structural Wall Shapes e) Openings f) Structural Wall Properties		
6	Create architectural floors and ceilings.	• Adding Floors a) Changing the Floor Type b) Editing a Floor Sketch c) Sloped Floors d) Multi-layer Floors e) Floor Properties .	CLO6	
7	Create stairs, ramps, railings, windows, and doors.	• Doors: a) Properties Placing Doors b) Adding Doors to Curtain Walls c) Changing the Door Orientation d) Moving a Door to a Different Wall e) Door Type • Windows: a) Placing Windows b) Window Tags c) Changing the Window Type d) Changing the Window Orientation e) Moving a Window to a Different Wall f) Window Instance Properties g) Window Type Properties .	CLO7	
8		**Midterm Exam**		
9	Create stairs, ramps, railings, windows, and doors.	• Stairs: a) Creating Stairs by Sketching b) Boundary and Riser Lines c) Stair Calculator d) Modifying Stairs e) Stair Properties • Ramp: a) Adding a Ramp b) Changing the Ramp Type c) Editing a Ramp d) Ramp Properties • Railing: a) Adding a Railing b) Changing the Railing Type c) Modifying the Railing Structure d) Railing Properties	CLO7	
10	Create a curtain wall	• Walls Overview: a) Placing Walls b) Modifying Walls	CLO8	

Week	Topic	Topic details	Related LO and Reference (Chapter)	Proposed Assignments
		c) Wall Best Practices d) Wall Type Properties		
11	Create site components.	• Site Settings • Defining Site Settings • Site Settings Properties	CLO9	
12	Create spaces and component families.	• Families Overview • The Families Guide • Working with Families • Creating an Element from a Family Type • Modifying a Family Type	CLO9	
13	Build a 3D house	• Creating an Orthographic 3D View • Creating a Perspective 3D View • Adjusting the Camera Position	CLO10	
14	Create a three dimensional office building.	• Specifying Camera Position in a 3D View • Modifying the Camera Position in a - Perspective 3D View • Turning Off the Camera in a 3D View	CLO10	
15	Create a three dimensional living facility for a building	• Displaying a 3D View • Rotating a 3D View • Change the Extents of a 3D View • 3D View Properties	CLO10	
16		**Final Exam**		

COURSE LEARNING RESOURCES

Teaching will be achieved using available resources including Lectures, data show and materials uploaded to the e-learning system and term projects

ONLINE RESOURCES

ASSESSMANT TOOLS

ASSESSMENT TOOLS	%
Projects and Quizzes	20
Mid Exam	30
Final Exam	50
TOTAL MARKS	100

THIRD: COURSE RULES

ATTENDANCE RULES

Attendance and participation are extremely important, and the usual University rules will apply. Attendance will be recorded for each class. Absence of 10% will result in a first written warning. Absence of 15% of the course will result in a second warning. Absence of 20% or more will result in forfeiting the course and the student will not be permitted to attend the final examination. Should a student encounter any special circumstances (i.e. medical or personal), he/she is encouraged to discuss this with the instructor and written proof will be required to delete any absences from his/her attendance records.

GRADING SYSTEM

Example:

Grade	Points

REMARKS

Use of Mobile Devices, Laptops, etc. During Class, unexpected noises and movement automatically divert and capture people's attention, which means you are affecting everyone's learning experience if your cell phone, laptop, etc. makes noise or is visually disturbing during class. For this reason, students are required to turn off their mobile devices and close their laptops during class.

Academic Integrity. Copying assignments, allowing assignments to be copied, will fail the assignment on the first offense. Cheat in tests, or copying assignments for the second time.

Cite all sources consulted to any extent (including material from the internet), whether or not assigned and whether or not quoted directly.

Project: Students will undertake a term project to study in detail one of the course topics. The project may involve a critical literature review or a case study. The students should consult at least five (5) references or journal articles. A written project report of 10 pages maximum will be submitted in nominated dates. Ten-minute presentation will be given to the rest of the class during the last two weeks of the semester.
Formats, Rules, Topics, submission and presentation dates are illustrated in project form.

COURSE COORDINATOR

Course Coordinator	**Department Head:**
Signature:	**Signature:**
Date:	**Date:**