INSTITUTE	**FACULTY OF TECHNOLOGY**
PROGRAM	**BACHELOR OF TECHNOLOGY (CIVIL ENGINEERING)**
SEMESTER	**4**
COURSE TITLE	**COMPUTER APPLICATIONS IN CIVIL ENGINEERING - II**
COURSE CODE	**01CI2405**
COURSE CREDITS	**1**

Objective:

1. To apply the learning into the different projects by following building bye laws and building information modeling.
2. To understand the Revit Architecture Software and its application in Building modeling.
3. To study about different Software commands
4. To apply the learning into the different projects by following building bye laws and building information modeling

Course Outcomes: After completion of this course, student will be able to:

1. Demonstrate the use of Revit tools for designing purpose.
2. Use various concepts of Building Information Modeling.
3. Modify the design using components like Doors, Windows, Furniture and other special features.
4. Generate the 3D view with the help of the Revit Architecture.

Pre-requisite of course:NA

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
0	0	2	0	0	0	25	25

Contents : Unit	Topics	Contact Hours
Total Hours		

Suggested List of Experiments:

Contents : Unit	Topics	Contact Hours
1	**Activity-1** Building Information Modelling, Revit Architecture tools, Features of Revit Architecture	2

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Suggested List of Experiments:

Contents : Unit	Topics	Contact Hours
2	**Activity-2** Quick Access Toolbar, Properties and Project browser, Navigation views	2
3	**Activity-3** Project Units Levels in Revit Offset, Temporary Dimensions, Permanent Dimensions	4
4	**Activity-4** Creating walls, Wall properties, Wall thickness, Wall plaster	4
5	**Activity-5** Door functions, Window functions, Library to add special types of doors and windows, Tagging Doors and Windows Components (Furniture, Electrical, Plumbing)	4
6	**Activity-6** Flooring of the building, Roofing of the building	6
7	**Activity-7** Linking AutoCAD file with Revit, Residential Building Modelling	6
Total Hours		**28**

Textbook :

1 Mastering Autodesk Revit, Eddy Krygiel, Lance Kirby and Marcus Kim, 2018

References:

1 Revit Architecture, Revit Architecture, Douglas R. Seidler, BSC Publishing Co. Pvt. Ltd, 2018

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery					
Remember / Knowledge	**Understand**	**Apply**	**Analyze**	**Evaluate**	**Higher order Thinking / Creative**
15.00	20.00	50.00	15.00	0.00	0.00

Instructional Method:

1 Importance and utilization of software in the Civil Engineering sector shall be discussed.

2 The teaching shall be conducted using various teaching aids in computer lab

3 Attendance in the session is mandatory and shall contain 5% weightage of the internal evaluation scheme

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Instructional Method:

4 At the end of each session, an assignment based on the content shall be given to the students which shall carry 5% weightage for timely completion and submission of the assigned work

5 The course includes a practice session, where students shall have an opportunity to carry hands on experience on the software.

Supplementary Resources:

1 https://www.lynda.com/Revit-Architecture-training-tutorials/416-0.html

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