UAT 173 BIM-VDC Workflow in the Construction Industry (UA 3100)
Effective Term: Fall 2020

Course Cover

Division: Advanced Technologies and Public Service Careers
Department: United Association Department
Discipline: United Association Training
Course Number: 173
Org Number: 28200
Full Course Title: BIM-VDC Workflow in the Construction Industry (UA 3100)
Transcript Title: BIM-VDC Workflow (3100)
Is Consultation with other department(s) required: No
Publish in the Following:
Reason for Submission: New Course
Change Information:
Rationale: New United Association course
Proposed Start Semester: Fall 2020
Course Description: In this course, students will examine the Building Information Management (BIM) process and determine how it fits into the Virtual Design and Construction (VDC) workflow. Students will demonstrate the VDC workflow on a small project for the plumbing, mechanical and fire protection industries. In addition, students will examine how a BIM project follows the workflow process from conception to installation. Students will implement materials and models in various VDC courses at local Training Centers. Limited to United Association program participants.

Course Credit Hours

Variable hours: No
Credits: 1.5
The following Lecture Hour fields are not divisible by 15: Student Min ,Instructor Min
Lecture Hours: Instructor: 22.5 **Student:** 22.5
The following Lab fields are not divisible by 15: Student Min, Instructor Min
Lab: Instructor: 1.5 **Student:** 1.5
Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 24 **Student:** 24
Repeatable for Credit: NO
Grading Methods: Letter Grades
Audit
Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

Requisites

General Education

Degree Attributes

Below College Level Pre-Reqs

Request Course Transfer
Proposed For:

Student Learning Outcomes

1. Present an outline on how to start implementing BIM workflows in their programs.
    Assessment 1
        Assessment Tool: Presentation
        Assessment Date: Fall 2020
        Assessment Cycle: Every Three Years
        Course section(s)/other population: All
        Number students to be assessed: All
        How the assessment will be scored: Observational checklist
        Standard of success to be used for this assessment: 80% of the students will score 80% or higher.
        Who will score and analyze the data: U.A. Instructors

2. Analyze how the BIM/VDC content and solutions can be utilized in existing courses.
    Assessment 1
        Assessment Tool: Demonstration
        Assessment Date: Fall 2020
        Assessment Cycle: Every Three Years
        Course section(s)/other population: All
        Number students to be assessed: All
        How the assessment will be scored: Observational checklist
        Standard of success to be used for this assessment: 80% of the students will score 80% or higher.
        Who will score and analyze the data: U.A. Instructors

3. Navigate within and manipulate the Revit model, learn the basics of spooling, and learn how to create sheets and documents from Revit.
    Assessment 1
        Assessment Tool: Demonstration
        Assessment Date: Fall 2020
        Assessment Cycle: Every Three Years
        Course section(s)/other population: All
        Number students to be assessed: All
        How the assessment will be scored: Observational checklist
        Standard of success to be used for this assessment: 80% of the students will score 80% or higher.
        Who will score and analyze the data: U.A. Instructors

Course Objectives
1. Discuss the basics of VDC/BIM program operations.
2. Discuss how to implement and navigate CAD learning.
3. Explain the process of project specifications and submittals as well as applications of the VDC/BIM process.
4. Describe the elements of the robotic total station.
5. Navigate Bluebeam program while adding text, dimension, and polylines.
6. Interpret and create VDC/BIM schedules.
7. Create and manipulate worksheets in Revit.
8. Create pipe routing and spool in Revit.
9. Discuss the processes of adding models into Revit to coordinate systems.

10. Compare and contrast VDC/ BIM technology to standard blueprints and submittals.

New Resources for Course

Course Textbooks/Resources
Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

Reviewer	Action	Date
Faculty Preparer:		
Tony Esposito	*Faculty Preparer*	*Apr 13, 2020*
Department Chair/Area Director:		
Marilyn Donham	*Recommend Approval*	*Apr 16, 2020*
Dean:		
Jimmie Baber	*Recommend Approval*	*Apr 21, 2020*
Curriculum Committee Chair:		
Lisa Veasey	*Recommend Approval*	*Jun 09, 2020*
Assessment Committee Chair:		
Shawn Deron	*Recommend Approval*	*Jun 16, 2020*
Vice President for Instruction:		
Kimberly Hurns	*Approve*	*Jun 17, 2020*