

# BIM Training within AEC Industry

*Author: Xavier Caldera*

## Abstract

At the turn of the 21<sup>st</sup> century, the rise of new technology has helped modernize the AEC industry. Architects, engineers, general contractors, and foremen can build, collaborate, and communicate more efficiently using BIM to help facilitate the building process.

Currently, there are three main avenues to learn BIM: in-house company training, attending college, or paying to learn independently online puts certain groups of people at a disadvantage to learn. The foundation for a BIM learning module can be created to help bridge the BIM education gap by analyzing current training programs available and then using the perspectives of a senior BIM engineer, an assistant project manager, and general foreman. The two groups of people determined to benefit the most from a BIM learning module would be high school students and unemployed construction workers.

This type of learning module would be most effective and easiest to implement pre-existing learning systems such as in high school, non-profit job training programs, or pre-apprentice programs.

## Keywords

BIM, pre-apprentice programs, job training, AEC industry



## Results

### BIM Learning Module Topics

- 1) What is BIM?
  - Past / Present Technology
- 2) Overview of BIM Programs
  - Who / What / Why
- 3) AutoCAD
  - Basics of Drafting
- 4) Navisworks
  - Spatial Coordination/Clash Detection
- 5) BIM 360
  - Field applications



## Methodology

- 1) Evaluate current training programs in construction industry
- 2) Analyze the BIM education gap within industry
- 3) Interview different perspectives within industry to understand industry needs regarding BIM
- 4) Identify specific BIM topics to be used for a new learning module
- 5) Create BIM learning module based off research found

### Contact:

xcaldera@calpoly.edu

California Polytechnic University,  
San Luis Obispo