Building Information Modeling (BIM) is one of the most exciting developments in the construction industry and is changing the way projects are built. AGC's BIM Education Program is being developed in conjunction with leading BIM practitioners, technology firms and educators to provide contractors with the essential information and skills needed to successfully implement BIM.

AGC's BIM Education Program will be comprised of six units. The program is designed to give participants a broad understanding and essential knowledge on BIM terminology, technology, concepts, functionality, and legal and insurance issues.

- Unit 1 | BIM 101 Available Now
- Unit 2 | BIM Technology
- Unit 3 | BIM Legal Issues and Risk Management
- Unit 4 | BIM Case Studies and Lessons Learned
- Unit 5 | BIM Process and Integration
- Unit 6 | Advanced BIM

## BIM 101: An Introduction to Building Information Modeling

BIM 101 is designed specifically for construction professionals eager to learn the essential concepts of BIM. Those also benefiting include building developers, owners, managers, supervisors, architects, engineers, and construction product manufacturers. Students in the architecture, engineering and construction (AEC) industry will also greatly benefit from this training.

The full-day course will give participants a comprehensive overview of BIM, supported by case studies to help participants comprehend each session's learning objectives. BIM 101 will introduce important concepts that will be necessary for future BIM courses.

# BIM 101 Sessions

### Session 1—What is BIM?

Session 1 focuses on answering the question "What is BIM?" and addresses why BIM should be used on construction projects. Participants will learn that the use of BIM eliminates the inefficiencies of the traditional method of Design-Bid-Build and two-dimensional (2D) drawings by facilitating collaboration among project team members and by illustrating the project design through three-dimensional (3D) visualization. The session concludes with a case study highlighting the differences between using BIM and not using BIM on two similar construction projects. Following successful completion of this session, participants will be able to:

- Define common BIM terminology and BIM-related components
- Recognize differences between 2D CAD and 3D BIM
- Describe the evolution of BIM (past, present and future)
- Discuss how BIM is used in collaboration
- Discuss the benefits of BIM to all parties involved

#### Session 2—BIM Visualization Uses and Spatial Coordination

Session 2 covers the process that a construction firm typically goes through to start incorporating BIM into its business processes. The session begins by taking a look at the core of BIM—the building of 3D models for visualization purposes—and then discusses the different model types that can be used. Following successful completion of this session, participants will be able to:

- n Recognize the basics of the modeling process and model management protocol
- n Recognize BIM uses in visualization, value analysis and scope clarification
- Explain the advantages of BIM in regards to spatial coordination

#### Session 3—BIM Scheduling, Estimating, and Facility Management

Session 3 introduces participants to more advanced uses of BIM, following the typical progression a company goes through in its BIM implementation plan. The session starts by looking at how companies have used 4D BIM in their

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# Future AGC BIM Education Program Courses

**BIM Technology** | A broad understanding of available BIM tools and hands-on training with some of the leading BIM software solutions. Will also outline ways to get various compatible software tools to work together on a project.

**BIM Legal Issues and Risk Management** | Uses the ConsesusDOCS BIM Legal Addendum as a foundation for training and will provide an overview of legal and insurance issues that are important to utilizing BIM on a project.

**BIM Case Studies and Lessons Learned** | Based on the Harvard Case Studies' approach, participants will examine the kinds of decisions and dilemmas BIM managers confront on a daily basis. Each case will illustrate examples of how leading companies have been using BIM and will demonstrate tools and techniques and illustrate the concepts that are necessary for a complete understanding of BIM.

**BIM Process and Integration** | Achieving the full benefits of BIM requires a reformation of traditional workflow processes and closer collaboration between the contractor and designer. This course will teach participants how to effectively collaborate with all project stakeholders in order to achieve better and more efficient projects.

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