Training Course on Implementing BIM Workflows and Collaboration

Professional Development Training Course Outline

Category	Construction Institute	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Training Course on Implementing BIM Workflows and Collaboration is meticulously designed to equip professionals with the essential knowledge and practical skills to effectively implement **Building Information Modeling (BIM) workflows** and foster seamless **collaboration** within project teams. In today's dynamic construction and infrastructure landscape, mastering BIM is no longer a luxury but a necessity for enhanced efficiency, reduced errors, and improved project outcomes. This program delves into the core principles of BIM implementation, emphasizing **interoperability**, **data management**, and the strategic adoption of collaborative platforms. Participants will gain hands-on experience in establishing robust BIM execution plans, navigating industry standards, and leveraging cutting-edge technologies to optimize project delivery and achieve significant **digital transformation**.

By focusing on real-world applications and practical exercises, this course empowers individuals and organizations to unlock the full potential of BIM. We explore the critical aspects of **information sharing**, **communication strategies**, and the establishment of integrated project delivery (IPD) principles through BIM. Participants will learn how to leverage **cloud-based collaboration tools**, manage **clash detection processes**, and ensure **data consistency** across all project phases. This training fosters a culture of proactive problem-solving and informed decision-making, ultimately leading to streamlined workflows, minimized risks, and a demonstrable return on investment through the strategic implementation of BIM workflows and enhanced team collaboration.

Programme Curriculum

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Course Objectives

Upon completion of this training course, participants will be able to:

1. Define core BIM concepts, benefits, and its impact on the Architecture, Engineering, and Construction (AEC) industry.
2. Create comprehensive BEPs tailored to specific project requirements and organizational standards.
3. Effectively utilize industry standards like **IFC (Industry Foundation Classes)** and **COBie (Construction Operations Building Information Exchange)** for seamless data exchange.
4. Establish efficient workflows for information sharing and communication among project stakeholders.
5. Navigate and leverage cloud-based platforms for real-time collaboration and data management.
6. Implement strategies for organizing, storing, and accessing project information within a BIM environment.
7. Employ software tools and workflows to identify and resolve clashes in the BIM model.
8. Utilize BIM models for effective design visualization, analysis, and stakeholder feedback.
9. Extract accurate quantities and integrate BIM with cost management systems.
10. Apply BIM for site planning, scheduling, and progress monitoring.
11. Navigate the legal and contractual aspects related to BIM implementation and data ownership.
12. Promote effective communication, trust, and shared responsibility within BIM project teams.
13. Understand emerging technologies and advancements shaping the future of BIM.

Organizational Benefits

- Streamlined workflows and reduced rework lead to faster project completion times.
- Enhanced collaboration minimizes misunderstandings and errors.
- Accurate quantity takeoffs and clash detection help control budgets.
- Improved visualization and analysis lead to better design outcomes.
- Clear communication and shared understanding improve client satisfaction.
- Proactive issue identification and resolution reduce potential problems.
- Centralized information ensures data accuracy and accessibility.
- Collaborative environment fosters creative solutions.
- Adoption of advanced BIM practices positions the organization as a leader.
- Optimized material usage and reduced waste contribute to sustainability goals.

Target Audience

1. Architects
2. Engineers (Civil, Structural, MEP)
3. Construction Managers
4. Project Managers
5. BIM Managers and Coordinators
6. Design Professionals
7. Facility Managers
8. Government and Public Sector Professionals

Course Outline

Module 1: Introduction to Building Information Modeling (BIM)

- Defining BIM: Concepts, evolution, and benefits.
- The BIM lifecycle and its various phases.
- Levels of Development (LOD) in BIM.
- Understanding the dimensions of BIM (3D, 4D, 5D, etc.).
- Case Study: Examining the impact of BIM on a landmark project.

Module 2: BIM Execution Planning (BEP)

- Importance and components of a BIM Execution Plan.
- Defining project goals and BIM deliverables.
- Establishing roles and responsibilities within the BIM team.
- Information exchange requirements and protocols.
- Case Study: Developing a BEP for a complex infrastructure project.

Module 3: Interoperability and Data Exchange Standards

- Understanding the need for interoperability in BIM.
- Introduction to IFC (Industry Foundation Classes) standards.
- Exploring COBie (Construction Operations Building Information Exchange).
- Working with other open BIM standards and formats.
- Case Study: Achieving seamless data exchange between different software platforms.

Module 4: Collaborative BIM Workflows and Platforms

- Principles of effective collaboration in a BIM environment.
- Overview of different cloud-based BIM collaboration platforms.
- Managing access control and permissions.

- Real-time model sharing and communication tools.
- Case Study: Utilizing a cloud platform for distributed team collaboration.

Module 5: BIM Data Management and Information Sharing

- Strategies for organizing and structuring BIM data.
- Implementing common data environments (CDEs).
- Version control and revision management in BIM.
- Ensuring data security and integrity.
- Case Study: Establishing a robust data management system for a large-scale project.

Module 6: Clash Detection and Model Coordination

- Identifying and understanding different types of clashes.
- Utilizing software tools for automated clash detection.
- Developing clash resolution workflows and responsibilities.
- Conducting virtual coordination meetings effectively.
- Case Study: Reducing costly rework through proactive clash detection.

Module 7: BIM for Design Review and Visualization

- Leveraging BIM models for enhanced design visualization.
- Conducting virtual walkthroughs and simulations.
- Facilitating stakeholder feedback and design iterations.
- Utilizing BIM for constructability analysis.
- Case Study: Improving design communication through immersive BIM visualization.

Module 8: BIM for Quantity Takeoff and Cost Management

- Extracting accurate quantities from the BIM model.
- Integrating BIM with cost estimation software.
- Performing 5D BIM analysis for cost control.
- Generating material schedules and reports.
- Case Study: Achieving accurate cost estimates using BIM-based quantity takeoff.

Module 9: BIM for Construction Planning and Sequencing (4D BIM)

- Linking BIM models with project schedules.
- Visualizing construction sequences and phasing.
- Identifying potential scheduling conflicts and optimizing logistics.
- Utilizing 4D BIM for progress monitoring.
- Case Study: Optimizing construction schedules using 4D BIM simulations.

Module 10: BIM for Facility Management (6D BIM)

- Utilizing BIM data for asset management and maintenance.
- Integrating BIM with facility management systems.
- Generating as-built models and operational information.
- Improving building performance and lifecycle management.
- Case Study: Leveraging BIM for efficient facility operations and maintenance.

Module 11: Legal and Contractual Aspects of BIM

- Understanding BIM-related legal frameworks and standards.

- Addressing data ownership and intellectual property rights.
- Navigating BIM protocols and contractual agreements.
- Managing liability and risk in BIM projects.
- Case Study: Analyzing legal considerations in a collaborative BIM project.

Module 12: Fostering a Collaborative BIM Culture

- Strategies for promoting communication and trust within BIM teams.
- Establishing clear roles and responsibilities.
- Implementing effective communication protocols.
- Encouraging knowledge sharing and continuous improvement.
- Case Study: Building a successful collaborative BIM environment within an organization.

Module 13: Advanced BIM Workflows and Emerging Technologies

- Exploring advanced modeling techniques and data analytics in BIM.
- Introduction to reality capture technologies (laser scanning, photogrammetry).
- Understanding the integration of AI and machine learning in BIM.
- Exploring the potential of digital twins in the AEC industry.
- Case Study: Implementing advanced BIM workflows for complex geometric challenges.

Module 14: Implementing BIM Standards and Best Practices

- Overview of national and international BIM standards.
- Adopting industry best practices for BIM implementation.
- Developing organizational BIM standards and guidelines.
- Ensuring quality control and information management.
- Case Study: Aligning organizational workflows with recognized BIM standards.

Module 15: The Future of BIM and Digital Transformation in AEC

- Exploring emerging trends and innovations in BIM.
- Understanding the role of BIM in broader digital transformation initiatives.
- The impact of IoT, big data, and cloud computing on BIM.
- Preparing for the future of collaborative digital construction.
- Case Study: Envisioning the future of BIM in the context of smart cities and infrastructure.

Training Methodology

Our training methodology incorporates a blended learning approach, combining theoretical knowledge with practical application:

- **Interactive Lectures:** Engaging presentations covering core concepts and industry best practices.
- **Hands-on Workshops:** Practical exercises using industry-standard BIM software to reinforce learning.
- **Case Study Analysis:** In-depth examination of real-world BIM implementation projects and their outcomes.
- **Group Discussions and Collaboration:** Facilitating peer-to-peer learning and knowledge sharing.
- **Software Demonstrations:** Live demonstrations of key BIM software features and workflows.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

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