COURSE SYLLABUS

Construction Management Course Online

Learn the fundamentals of construction management with a comprehensive, software-driven certification program. Build practical skills in scheduling, estimating, materials, and project coordination while learning industry tools like Bluebeam, Smartsheet, and Procore, with the Procore Student Certification Exam and Bluebeam Certified Professional Exam included to help you earn recognized credentials.

> Group classes (Live Online) and onsite training are available for this course. For more information, email partnerships@vdci.edu or visit: https://vdci.edu/courses/construction-management-course-online



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Course Outline

This package includes these courses

- Intro to Construction Management Course Online (20 Hours)
- Intermediate Construction Management Course Online (20 Hours)
- Construction Scheduling Course Online (30 Hours)
- Construction Materials Course Online (30 Hours)
- Intro to Construction Estimating Course Online (20 Hours)
- Construction Estimating with Bluebeam Course Online (30 Hours)
- Construction Management with Procore Course Online (Coming Soon) (30 Hours)

Attend up to three (3) of these elective courses for free (all are optional).

- Commercial Blueprint Reading Course Online
- Residential Blueprint Reading Course Online
- MEP Blueprint Reading Course Online
- Structural Blueprint Reading Course Online
- Communication & Connection Course Online
- Self-Management Skills Course Online
- Teamwork, Collaboration & Leadership Course Online

Intro to Construction Management Course Online

This course offers a solid foundation in construction management, covering everything from project planning to completion. Ideal for aspiring professionals or those transitioning into the field, you'll learn key skills like scheduling, cost estimation, and effective communication with stakeholders. Through real-world examples and exercises, you'll gain practical experience in managing construction projects successfully. Topics include construction technology, reading construction documents, and

contract administration. Whether you're new to the industry or moving into a management role, this course gives you the knowledge needed to succeed.

- Key principles of construction management and project organization
- Essentials of construction technology and how it applies to the industry
- How to interpret and analyze construction documents effectively
- Fundamentals of contract administration and legal requirements in construction
- Practical strategies for managing resources, schedules, and budgets
- Communication and leadership skills to manage teams and stakeholders
- Insight into industry best practices and real-world applications
- Overview of the key parties involved, industry sectors, design vs. construction
- Overview of the major project delivery systems, payment/procurement options, bonds, and insurance

Intermediate Construction Management Course Online

Take your construction management skills to the next level with this intermediate course. This course is designed for individuals with a foundational knowledge of construction management and aims to expand your expertise through practical applications and advanced concepts. You will learn how a construction project is managed from start to finish. Y ou'll learn about cost estimating and scheduling concepts, earthwork estimating, and contracts. Get a head start in the construction industry with these useful insights, tips, and terminology.

- Advanced project scheduling and resource allocation strategies.
- Budget estimation and cost control techniques.
- Risk assessment and management in construction projects.
- Effective communication and collaboration in multidisciplinary construction teams.
- Insights into regulatory compliance and contract administration.
- Overview of safety plans, quality plans, site logistics plans, phasing plans, and stormwater management plans.
- Overview of document control, submittals, RFIs, issue management, and jobsite records.

Construction Scheduling Course Online

Learn the essential skills to plan, organize, and manage construction projects effectively with Smartsheet. From understanding scheduling basics to creating detailed project timelines, this course provides experience using Smartsheet to build and maintain professional construction schedules.

- The fundamentals of creating construction schedules tailored to project requirements
- Techniques for utilizing scheduling software to streamline project timelines and workflows
- Strategies for identifying and managing critical paths to avoid delays and ensure timely completion
- Best practices for resource allocation and balancing workloads across project teams
- Methods for monitoring progress and updating schedules to adapt to changing project conditions
- Tips for communicating schedules with stakeholders and maintaining transparency throughout the project lifecycle

Construction Materials Course Online

The course provides a clear, practical overview of the materials and systems used in both residential and commercial construction, from concrete foundations through roofing systems. It covers how key construction materials are used, their

properties, and sustainability considerations, giving you the knowledge needed to make informed decisions on construction projects.

- Understand the properties and uses of essential construction materials, including concrete, steel, wood, and more
- Explore the latest innovations in sustainable and green construction materials
- Learn how to evaluate and select the appropriate materials for various project requirements
- Gain practical knowledge on applying materials in both residential and commercial contexts
- Develop skills to assess material performance, durability, and cost-effectiveness
- Discover industry trends and best practices for using materials in modern construction projects

Intro to Construction Estimating Course Online

This course will show you the purpose of construction estimating, the tools used, and the skills required for construction estimating. You will go over quantity takeoffs and how to determine prices based on estimated quantities. The course wraps up discussing cost estimate proposals and what is included and excluded when creating an estimate.

- Understand the fundamentals of construction estimating for residential and commercial projects.
- Learn to interpret architectural and structural plans to extract relevant cost-related data.
- Master different types of estimates, such as conceptual, preliminary, and detailed estimating .
- Gain insight into quantity surveying, estimating takeoffs, labor costs, equipment costs, and contingency planning.
- Explore industry-standard tools and software used for creating precise cost estimations.
- Develop problem-solving skills to analyze discrepancies and mitigate cost overruns effectively.

Construction Estimating with Bluebeam Course Online

Learn how to perform accurate digital takeoffs and organize construction estimates in this class. Designed for contractors, estimators, and construction professionals, this course focuses on using Bluebeam Revu to generate quantity reports, streamline workflows, and prepare data for project proposals.

- Build a solid foundation in digital estimating by learning key concepts such as takeoffs, quantities, and bid preparation using Bluebeam Revu.
- Practice using Bluebeam’s measurement, markup, and dynamic fill tools to calculate quantities across all building systems, including walls, windows, flooring, and roofing.
- Learn to manage data using tool chests, layers, spaces, and customizable columns. Export your takeoffs into shareable, editable reports for clients or team use.
- Apply your skills to real project drawings with structured exercises and assignments that mirror professional estimating workflows.

Construction Management with Procore Course Online (Coming Soon)

Learn Procore, the industry’s leading construction management software, and prepare for the Procore Student Certification Exam. Procore is a comprehensive construction management platform designed to streamline and simplify every aspect of a construction project.

- Learn how to utilize the full capabilities of Procore software to manage construction projects seamlessly
- Gain strategies to improve collaboration between office and field teams for clarity and efficiency
- Learn the best practices for communication and task management
- Apply techniques for tackling challenges across all project phases
- Discover how to streamline processes, minimize delays, and reduce rework, ensuring every task aligns with project goals