COURSE SYLLABUS

Construction Management Certification (Self-Paced)

Master the full construction management lifecycle through hands-on training in scheduling, estimating, bidding, safety, and AI-powered workflows. Build real-world skills with Smartsheet, Bluebeam, Procore, and Autodesk Forma while learning from material shaped by licensed architects, contractors, and industry veterans that helps you prepare for the Procore and Bluebeam exams.

> Group classes (Live Online) and onsite training are available for this course. For more information, email corporate@nobledesktop.com or visit: https://www.nobledesktop.com/classes/construction-management-certification-program-self-paced



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Course Outline

This package includes these courses

- Construction Management I (Self-Paced) (20 Hours)
- Construction Management II (Self-Paced) (20 Hours)
- Construction Scheduling Course (Self-Paced) (30 Hours)
- Construction Materials Course (Self-Paced) (30 Hours)
- Intro to Construction Estimating Course (Self-Paced) (20 Hours)
- Construction Estimating with Bluebeam Course (Self-Paced) (30 Hours)
- Construction Management with Procore Course (Self-Paced) (30 Hours)
- Construction Bidding Course Online (Self-Paced) (30 Hours)
- Construction Site Planning & Logistics Course Online (Self-Paced) (30 Hours)
- Construction Safety & OSHA Fundamentals (Self-Paced) (30 Hours)
- AI Workflows for AEC Professionals (Self-Paced) (30 Hours)
- Intro to Autodesk Forma (Self-Paced) (30 Hours)

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

- Commercial Blueprint Reading (Self-Paced)
- Residential Blueprint Reading (Self-Paced)
- MEP Blueprint Reading (Self-Paced)
- Structural Blueprint Reading (Self-Paced)
- Communication and Connection (Self-Paced)
- Self-Management Skills (Self-Paced)

- Teamwork, Collaboration & Leadership (Self-Paced)

Construction Management I (Self-Paced)

The construction industry involves a vast amount of knowledge that professionals build over a lifetime. Start your career with a course designed to provide a strong foundation for long-term success in the construction industry. Learn the fundamentals, key terminology, and practical insights that give newcomers a valuable head start in the field.

- Overview of the construction industry
- Key stakeholders and their roles
- Project planning and master planning processes
- Construction industry sectors and project types
- Differences between design and construction phases
- Major project delivery systems and their applications
- Payment methods and procurement strategies
- Risk management through bonds and insurance

Construction Management II (Self-Paced)

In the second part of the Construction Management Fundamentals course series, you'll learn about cost estimating and scheduling concepts, earthwork estimating and contracts. There is an immense amount of information to absorb over a lifetime in construction.

- An overview of construction estimating
- Contracts and scheduling
- Safety and quality plans
- Site logistics and phasing
- Submittals, RFIs, and document control
- Stormwater management plans
- Site issues and tracking

Construction Scheduling Course (Self-Paced)

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 effective 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 effectively with stakeholders and maintaining transparency throughout the project lifecycle

Construction Materials Course (Self-Paced)

This course offers a practical overview of the materials and systems used in residential and commercial construction, from

concrete foundations through roofing systems. You'll examine how core materials are used, their key properties, and sustainability considerations to support informed decision-making on construction projects.

- Understand the properties and applications of core construction materials, including concrete, steel, and wood
- Explore sustainable and innovative materials used in modern construction
- Learn how to evaluate and select materials based on project requirements
- Apply material knowledge to both residential and commercial construction scenarios
- Assess material performance, durability, and cost considerations
- Identify industry trends and best practices in material selection and use

Intro to Construction Estimating Course (Self-Paced)

This online construction estimator course is taught by a professional construction estimator. You will learn about the types of estimates and how an estimate is organized. The components and sub-components of an estimate will be addressed – you will learn how to become an estimator.

- Demonstrate an understanding of the inter-relationship between the construction drawings and a quantity-takeoff cost estimate.
- Analyze the components of a construction cost estimate and learn how a quantity-takeoff cost estimate is created.
- Master an understanding of quantity surveying, estimating takeoffs and pricing estimated quantities.
- Recognize the need for thoroughness and attention to detail when preparing construction cost estimates.

Construction Estimating with Bluebeam Course (Self-Paced)

This Bluebeam Estimating course teaches construction professionals how to perform accurate digital takeoffs and organize estimating data efficiently. Designed for contractors and estimators, the course focuses on using Bluebeam Revu to generate quantity reports, streamline estimating workflows, and prepare data for project proposals.

- Develop a strong foundation in digital estimating, including takeoffs, quantities, and bid preparation using Bluebeam Revu
- Use measurement, markup, and dynamic fill tools to calculate quantities across common building systems such as walls, windows, flooring, and roofing
- Organize estimating data with tool chests, layers, spaces, and custom columns, then export clean, editable quantity reports
- Apply skills to real construction drawings through structured exercises that reflect professional estimating workflows

Construction Management with Procore Course (Self-Paced)

Learn how to use Procore, the construction industry's leading project management platform, to manage projects. This course focuses on applying Procore's tools to streamline workflows, improve coordination, and support every phase of a construction project.

- Use Procore's core tools to manage construction projects from planning through completion
- Improve collaboration and information flow between office and field teams
- Apply best practices for communication, task tracking, and issue management
- Address common project challenges across different stages of construction
- Streamline processes to reduce delays, limit rework, and keep projects aligned with goals

Construction Bidding Course Online (Self-Paced)

Landing projects in construction comes down to far more than tallying up costs. It demands clear thinking, smart decisions, and

a dependable process that guides you from the first glance at an opportunity straight through to the final handoff. This course unpacks the way estimators navigate every stage of the bidding cycle, covering how to judge which jobs deserve your attention, how to line subcontractor pricing up for easy comparison, and how to land on a figure that secures the work while holding risk in check.

- Build a solid understanding of what estimators really do and how bidding influences everything that follows
- Weigh potential jobs by examining contract structure, the competitive field, backlog, and risk
- Pull together a reliable subcontractor pool that delivers strong, complete pricing across every scope
- Go through incoming bids by aligning scope, catching what's absent, and defending your choices
- Assemble a full bid that combines general conditions, fee strategy, and a sensible contingency cushion
- Push through the pressure of bid day and submit a sharp, competitive, and ethical proposal

Construction Site Planning & Logistics Course Online (Self-Paced)

A productive jobsite takes more than hard work. It hinges on having a clear plan for how people, materials, and equipment travel through the space each day. This course explores the way field teams manage site logistics from the opening walkthrough to project closeout, including how to read a site, build a workable plan, run daily operations, and adjust when conditions change on the ground.

- Understand what site logistics truly entails in construction and why it shapes safety, productivity, and overall project results
- Evaluate a site's physical constraints, entry and exit points, and existing conditions before any planning begins
- Develop a realistic logistics plan that covers fencing, circulation routes, staging areas, and temporary facilities
- Guide the flow of labor, materials, and equipment in a way that reduces congestion and keeps work moving
- Oversee daily field operations with attention to safety, cleanliness, and clearly marked work zones
- Adapt logistics planning to each project phase and rework the strategy as site conditions shift

Construction Safety & OSHA Fundamentals (Self-Paced)

Master the essentials of construction safety, spanning PPE and fall protection through hazard analysis and OSHA referencing. Build the knowledge to make sound safety decisions on real construction sites and get ready for OSHA 10 certification.

- Understand the general requirements and common hazards of the construction industry
- Identify personal protective equipment (PPE) and know when each type is called for
- Apply activity-specific safety protocols for fall protection, welding, confined spaces, and electrical work
- Recognize and interpret hazardous material symbols often found on construction sites
- Complete an Activity Hazard Analysis (AHA) for a given construction task
- Work through OSHA resources and reference standards for real-world scenarios
- Carry out a basic safety inspection, covering exit routes, signage, and fire plans
- Weigh weather-related safety considerations for both heat and cold conditions

AI Workflows for AEC Professionals (Self-Paced)

This course looks at how artificial intelligence is being put to use across the built environment, from early design through construction and project closeout. You'll gain practical, hands-on experience developing automation scripts and tools shaped around the real demands of AEC practice.

- Use refined prompting and scripting methods to pull and process information from AEC project documents and data.

- Build and oversee automated processes using Python and AI APIs within the context of a professional firm.
- Draw on generative and iterative AI tools to model and develop project criteria throughout the construction lifecycle.
- Create industry-ready automation tools that support bidding, technical proposal writing, and project management.
- Design and deploy custom interfaces built for practical, firm-wide use in a professional setting.
- Apply AI tools to clean, process, and analyze complex project data across a variety of file formats and document types.
- Develop AI-powered tools for managing project schedules, reviewing field reports, and tracking budgets in real time.
- Complete a polished, portfolio-ready web application that demonstrates applied competency in AEC automation and AI-driven workflows.

Intro to Autodesk Forma (Self-Paced)

This course delivers hands-on experience, guiding you from a blank project all the way to a coordinated construction model. You'll get comfortable with efficient workflows for the modern jobsite, taking on everything from initial site massing to the detailed resolution of mechanical clashes. You'll dive into practical projects that teach you how to skillfully manage digital files, version control, and automated coordination tools.

- Carry out AI-powered site analysis and environmental feasibility studies.
- Handle cloud-based project files within a common data environment.
- Coordinate multi-discipline Revit models for automated clash detection.
- Produce professional construction issue reports for field resolution.
- Set up project administrative settings for team collaboration and transparency.