COURSE SYLLABUS

Construction Management Certification Course Online

Build expertise across the full construction management lifecycle through hands-on training in scheduling, estimating, bidding, safety, and AI-powered workflows. Gain practical experience with Smartsheet, Bluebeam, Procore, and Autodesk Forma while learning from licensed architects, contractors, and experienced industry professionals. The program also helps prepare you for the Procore and Bluebeam certification exams.

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



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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 (30 Hours)
- Construction Bidding Course Online (30 Hours)
- Construction Site Planning & Logistics Course Online (30 Hours)
- Construction Safety & OSHA Fundamentals Course Online (30 Hours)
- AI Workflows for AEC Professionals Course Online (30 Hours)
- Intro to Autodesk Forma Course Online (30 Hours)

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

- Commercial Blueprint Reading Course (Self-Paced)
- Residential Blueprint Reading Course (Self-Paced)
- MEP Blueprint Reading Course Online
- Structural Blueprint Reading Course Online
- Communication & Connection Course (Self-Paced)
- Self-Management Skills Course (Self-Paced)

- Teamwork, Collaboration & Leadership Course (Self-Paced)

Intro to Construction Management Course Online

This course gives you a solid foundation in construction management, walking you through everything from project planning to completion. Whether you're an aspiring professional or making the move into the field, you'll build key skills in scheduling, cost estimating, and communicating effectively with stakeholders. Real-world examples and hands-on exercises give you practical experience in managing construction projects from start to finish. Along the way, you'll explore construction technology, learn how to read construction documents, and get a clear handle on contract administration. If you're new to the industry or stepping into a management role, this course gives you the knowledge you need to succeed.

- Core principles of construction management and how projects come together
- The essentials of construction technology and how it shapes the industry today
- How to read and analyze construction documents with confidence
- The fundamentals of contract administration and the legal side of construction work
- Practical strategies for managing resources, schedules, and budgets in the field
- Communication and leadership skills for guiding teams and working with stakeholders
- A real world look at industry best practices and how they show up on the job
- An overview of the key parties involved, industry sectors, and the divide between design and construction
- A breakdown of major project delivery systems, payment and procurement options, bonds, and insurance

Intermediate Construction Management Course Online

Go beyond the basics of construction management with a closer look at cost estimating, scheduling, contracts, and the project plans that drive successful execution. You'll pick up practical tools for handling site logistics, safety, and quality, giving you the confidence to keep projects on track from groundbreaking to closeout.

- Advanced project scheduling and smart resource allocation strategies
- Budget estimation and cost control techniques that hold up in the field
- How to assess and manage risk throughout the life of a construction project
- Communication and collaboration skills for working across multidisciplinary teams
- A practical look at regulatory compliance and contract administration
- An overview of safety plans, quality plans, site logistics, phasing strategies, and stormwater management
- The behind the scenes systems that keep projects moving, including document control, submittals, RFIs, issue tracking, and jobsite records

Construction Scheduling Course Online

Master construction scheduling and project management with our hands on Smartsheet training course. You'll learn how to build efficient schedules, streamline workflows, and apply industry best practices that keep your projects on track from start to finish.

- The fundamentals of building effective construction schedules tailored to the needs of each project
- Techniques for using scheduling software to streamline timelines and keep workflows moving
- Strategies for identifying and managing the critical path so projects stay on time
- Best practices for resource allocation and balancing workloads across project teams

- Methods for tracking progress and updating schedules as conditions on the ground change
- Tips for communicating schedules clearly with stakeholders and keeping everyone in the loop throughout the project

Construction Materials Course Online

This course offers a clear, practical look at the materials and systems behind both residential and commercial construction, stretching from concrete foundations through roofing systems. It walks through how key construction materials are used, their properties, and sustainability considerations, giving you the grounding needed to make informed decisions on construction projects.

- Get to know the properties and uses of essential construction materials, including concrete, steel, wood, and more
- Look into the latest innovations in sustainable and green construction materials
- Learn how to weigh and choose the right materials for different project requirements
- Build practical knowledge for applying materials across residential and commercial settings
- Sharpen your ability to assess material performance, durability, and cost-effectiveness
- Discover industry trends and best practices for putting materials to work in modern construction projects

Intro to Construction Estimating Course Online

Taught by a professional construction estimator, this course covers the essentials of construction estimating, including key tools, quantity takeoffs, and pricing strategies. You'll also learn how to create accurate cost estimate proposals, and understand what should be included or excluded in a proposal.

- Understand the fundamentals of construction estimating for both residential and commercial projects.
- Learn to interpret architectural and structural plans to extract key cost-related information.
- Master different types of estimates, including conceptual, preliminary, and detailed estimating.
- Gain insight into quantity surveying, estimating takeoffs, labor and equipment costs, and contingency planning.
- Explore industry-standard tools and software used to produce accurate cost estimations.
- Develop problem-solving skills to identify discrepancies and manage cost overruns effectively.

Construction Estimating with Bluebeam Course Online

Master the art of accurate digital takeoffs and organizing construction estimates in this practical Bluebeam Estimating course. Perfect for contractors, estimators, and construction professionals, this course teaches you how to use Bluebeam Revu to generate quantity reports, optimize workflows, and prepare data for project proposals. You'll gain hands-on experience with construction drawings to sharpen your estimating skills, from measurements to final reporting.

- Takeoff Fundamentals: Gain a solid understanding of digital estimating, including takeoffs, quantities, and bid preparation using Bluebeam Revu.
- Measurement Tools: Practice using Bluebeam's measurement, markup, and dynamic fill tools to calculate quantities for all building systems, including walls, windows, flooring, and roofing.
- Organized Estimating: Learn to organize data with tool chests, layers, spaces, and customizable columns. Export your takeoffs into shareable, editable reports for clients and team members.
- Real-World Application: Apply your knowledge to real project drawings with structured exercises that simulate professional estimating workflows.

Construction Management with Procore Course Online

This course gives construction professionals the skills to manage projects effectively using Procore's powerful tools. You'll prepare for the certification exam while learning how to streamline workflows, strengthen collaboration, and set projects up for success with expert guidance every step of the way.

- Learn how to use the full power of Procore to manage construction projects from end to end
- Pick up strategies for strengthening collaboration between office and field teams
- Master best practices for communication and task management on real projects
- Apply proven techniques for tackling challenges across every phase of a project
- Discover how to streamline processes, minimize delays, and cut down on rework so every task supports the bigger project goals

Construction Bidding Course Online

Landing projects in construction takes much more than tallying up costs. It calls for clear thinking, smart decisions, and a steady process that carries you from the first look at an opportunity all the way to the final handoff. This course breaks down how estimators move through each phase of the bidding cycle, including how to size up which jobs are worth pursuing, how to stack subcontractor pricing side by side, and how to arrive at a number that wins the work while keeping risk in check.

- Get a clear picture of what estimators actually do and how bidding shapes the rest of the project
- Size up potential jobs by looking at contract structure, the competitive landscape, backlog, and risk
- Assemble a trusted subcontractor pool that brings in strong, thorough pricing across every scope
- Review incoming bids by matching up scope, spotting what's missing, and standing behind your selections
- Piece together a full bid that blends general conditions, fee strategy, and a smart contingency cushion
- Work through the intensity of bid day and turn in a proposal that's sharp, competitive, and above board

Construction Site Planning & Logistics Course Online

A great jobsite runs on planning, not luck. The difference between a project that hums along and one that constantly stalls usually comes back to a simple question: does the team have a clear strategy for moving people, materials, and equipment through the site each day? This course gives you a behind the scenes view of how field professionals tackle logistics from the first walkthrough to the final inspection, building the skills to assess a property, design a plan that holds up under pressure, manage the daily grind, and adjust course when the job throws something new at you.

- Understand what site logistics really means on a construction project and why it has such a direct impact on safety, productivity, and the way a job finishes
- Walk a property with a sharper eye before planning begins, taking stock of the lot lines, available access points, and whatever conditions are already on site
- Develop a logistics plan rooted in real world conditions, including fencing layouts, internal traffic routes, staging zones, and the temporary facilities crews use every day
- Guide the movement of labor, deliveries, and equipment so the site stays unclogged and progress keeps building from one task to the next
- Manage daily field operations with safety, cleanliness, and clearly defined work areas driving every call you make
- Adapt your logistics strategy as the project moves through different phases, reworking the approach anytime the conditions on the ground call for a change

Construction Safety & OSHA Fundamentals Course Online

Get a working handle on construction safety, covering everything from gear and fall prevention to spotting hazards and finding

your way through OSHA's standards. You'll walk away ready to make smart calls in the field and confident heading into the OSHA 10 certification.

- Get a clear picture of the baseline rules and the biggest threats workers face across construction
- Spot the right personal protective equipment (PPE) for the job and know exactly when it belongs on
- Put activity tailored safety practices to work for fall prevention, welding, tight spaces, and electrical tasks
- Read and interpret the chemical and hazard symbols that show up across construction sites
- Pull together an Activity Hazard Analysis (AHA) for any given construction task
- Find your way through OSHA's library and pull the right standards when situations come up in the field
- Carry out a basic safety walkthrough, checking exit paths, signage, and fire response plans
- Weigh the safety risks tied to extreme weather, whether the temperature climbs or drops

AI Workflows for AEC Professionals Course Online

This course examines how artificial intelligence is transforming the built environment, with a focus on practical applications across design, documentation, bidding, and construction management. Participants will gain hands on experience creating automation tools and scripts designed to support real world AEC workflows.

- Apply advanced prompting strategies and scripting methods to evaluate, organize, and process AEC documents and project data.
- Build and oversee automated workflows using Python and AI APIs within professional design and construction environments.
- Develop and refine project criteria with generative and iterative AI tools across various stages of the construction process.
- Create practical automation solutions for estimating, proposal development, bidding activities, and project administration.
- Design custom user interfaces intended for team adoption, office use, and broader organizational deployment.
- Use AI-powered tools to clean data, interpret project documentation, and analyze information from a variety of file formats.
- Create and maintain AI-assisted project schedules, field reporting systems, and budget monitoring tools.
- Complete a portfolio-worthy web application that showcases your ability to apply AI automation within the built environment.

Intro to Autodesk Forma Course Online

This course provides practical experience as you progress from an empty project to a coordinated construction model. You will learn the workflows used on today's jobsites, from early site planning and massing studies to resolving detailed mechanical conflicts. Through real world projects, you will build skills in digital file management, version control, and automated coordination tools.

- Conduct AI-powered site evaluations and environmental feasibility assessments.
- Organize and manage cloud-based project files within a common data environment.
- Coordinate Revit models across multiple disciplines and identify conflicts through automated clash detection.
- Create professional issue reports to support field coordination and project resolution.
- Set up project administration tools that improve collaboration, communication, and team visibility.