

%&%&'`2-Course Certified ConstructionProject Manager



“The videos of PMs in action were great because they offered techniques for dealing with real life situations that are very common in the field.”
Tony Vieira .”

“I could learn on my own pace and absorb more detail, rather than churning through assignment after assignment and not pausing to actually LEARN the materials.

JackHall,
Attenza
.”

Chris Thomas, 3M

Designed For

Construction professionals who want to master the skills required to manage larger, residential or commercial construction projects. It is composed of two courses:

- Essentials of Construction Project Management - #121 (see page #2)
- Managing Construction Projects - #123 (see page #6)

Professional Skills...Consistent Success

The program gives you:

- an arsenal of professional project management tools & techniques
- planning with the boss or customer
- estimating & scheduling
- managing crews and subs
- presentation skills
- practice using them with real people and problems
- coaching until your skills reach the professional level

Your Learning Experience...Personal Mentoring

You work personally and privately with your PMI-certified instructor

- ✓ practice project management skills on realistic case studies
- ✓ learn to think on your feet in live, online role-playing sessions
- ✓ receive personal written feedback and coaching on your assignments
- ✓ call your instructor anytime with questions or to discuss a concept
- ✓ get one year of ongoing support and advice on your projects at work.
- ✓ Begin a course whenever you wish and work at your pace and schedule. There are no time limits or fixed schedules.

Our Credentials

We are a PMI (Project Management Institute) Registered Education Provider and you earn 90 PDUs (professional development units)

121 Essentials of Construction Project Management

Course Syllabus

Course Textbooks

- *Essentials of Project Management 7th Edition*, e-book by Dick Billows, PMP, GCA, 2010
- *Presentations that Persuade and Motivate*, Harvard Business School Press, 2004

Learning Objectives

Working with your personal instructor, you will learn all the steps in the construction project lifecycle and demonstrate the ability to execute each of these steps at a professional level. You will master the techniques and then demonstrate competence in each of the following steps:

1. Plan with customers/owners
2. Gather requirements from customers/owners
3. Create and present a project charter to the customer and answer their questions
4. Schedule your project in Microsoft Project® software
5. Estimate work and durations with your subs and crew
6. Solve conflicts within the crew
7. Fine-tune your schedule to minimize the duration
8. Track actual progress against the plan
9. Write and present status reports with corrective action plans and answer customers' questions.

How You Learn

Course Process: Reading, Lectures and Homework Assignments

Each of the modules in the course has a textbook reading assignment, a lecture video on the course website, and a project management assignment in a realistic case study to complete one of the steps in the project lifecycle. You will complete the assignments:

7. Using our templates or
8. In a live presentation with your instructor or
9. By submitting a Microsoft Project® file.

You will send each assignment to your instructor via e-mail. The course requires approximately 30 hours of effort in total, including the final exam. You may take up to one year to complete the course.

Streaming Media Lectures

You will view the lectures from the course website. Our server will stream the high-definition videos to you using the latest dynamic technology and constantly monitor your available bandwidth, streaming the appropriate size file for your bandwidth. Students watching from their workplace or from home with a cable TV speed connection will not encounter any buffering.

Live Presentations and Simulations

Because effective communications are such an important skill for project managers, you will practice conducting meetings, presenting plans and status reports, and answering questions from executives. These two project simulations will take place privately, between you and your instructor, at mutually agreed upon times. The live Internet meetings are via web camera. In each of these simulations, you will play the role of the project manager and your instructor will play the sponsor and stakeholders from your case study. Your instructor will send you a video of each of your presentations and written feedback on your content, speaking and presentation techniques.

Apply What You Have Learned to a Case Study

You will practice each course technique on the Vailcrest case study and receive coaching and written feedback from your instructor on all your work. Your instructor will ask you to redo an assignment that is not up to standard. You will manage the case study project through every step in the lifecycle.

Grading Criteria

To pass the course, you must earn a grade of B (80%) or better on each of your assignments and the one-hour final exam. To earn Project Management Institute (PMI®) professional development units (PDUs) for this course, your online final exam must be proctored by an organizational superior or a licensed professional, such as an attorney or certified public accountant.

Course Sequence

Module 1: Project Initiation and Scope

1. Read to page 11 in the *Essentials of Project Management* e-book.
2. Watch the Module 1 lecture on the course website as well as the video of the “Vailcrest Corporation Executives & Staff” to familiarize yourself with the case study organization, its executives and the people on your project team.
3. Read Part 1 of the Vailcrest Case Study, summarized below. Your assignment is to define the project scope. Start by asking questions of the owner and president, Dan Morton. In an email to your instructor, apply what you have learned about defining the project scope and ask Dan the correct questions. Your instructor will respond to your questions as the sponsor and also give you written feedback within 24 hours on how you handled the discussion. Then you write the project scope and submit it to your instructor.

Vailcrest Case Study Part 1 Summary (In the actual course, you’ll read the entire case study):

You have just taken a new job as construction project manager for the Vailcrest Corporation. On your first day, you meet with Dan Morton, President of Vailcrest Lodge. Dan hired you for your project management and technical construction skills because his organization has a poor track record on its projects. Dan describes the new project as aimed at improving service by solving a long list of problems including: office space shortage, excessive noise throughout the building and inadequate systems and operations facilities. He expects you to manage the people and contractors on the project team.

Module 2: Gathering Requirements

1. Read to page 13 in the *Essentials of Project Management* e-book.
2. Watch the Module 2 lecture on the course website.
3. Read Part 2A of the Vailcrest Case Study provided below. Then ask any questions you wish of the Vailcrest executives to gather their requirements. Using that information, decompose the scope from Assignment #1 into 4 to 7 major deliverables using the course template. Send the template to your instructor and receive written feedback and coaching within 24 hours.

Vailcrest Case Study Part 2 Summary (In the actual course, you'll read the entire case study):

With Dan's approval of the project scope, you meet with company executives and quickly realize that there is conflict between the executives from Marketing, Operations and Services. Each of them has different goals for the project. You need to gather their requirements and develop a high level plan they all accept.

4. Submit the requirements to your instructor for feedback and Dan's approval.

Module 3: Project Plan and Charter Presentation

1. Read to page 16 in the *Essentials of Project Management* e-book. Then read pages 1-81 in *Presentations That Persuade and Motivate*.
2. Watch the Module 3 lecture on the course website.
3. Read Part 3 of the Vailcrest Case Study:

Vailcrest Case Study Part 3 Summary (In the actual course, you'll read the entire case study):

After getting approval of your requirements from Dan and the executives, Dan voices his impatience with the planning process and wants to shorten the project duration. In addition, the executives warn you about risks and the limited availability of people in their departments to work on the project.

4. Develop your charter in the project plan template and send it to your instructor for written feedback.

5. After you receive approval of your charter, schedule your live project presentation and simulation with your instructor.
6. You will enter our live meeting site and give your presentation. Your instructor will play the role of the customer executives. You'll answer their questions about your presentation of the project's charter. Your goal in this live interaction is to secure the executives' approval to proceed with detailed scheduling. Your instructor will send you written feedback on your presentation content and techniques and a link to view your recorded presentation.

Module 4: Task List (Work Breakdown Structure)

1. Read to page 24 in the *Essentials of Project Management* e-book.
2. Watch the Module 4 lecture and the software video on the course website.
3. Read Part 4 of the Vailcrest Case Study:

Vailcrest Case Study Part 4 Summary (In the actual course, you'll read the entire case study):

You interview your crew members about the deliverables you must produce for the project. You ask about their availability to work on the project and the support they will require from the rest of the team to complete their tasks.

4. Use your deliverables as a starting point and the information from the crew members to develop a task list (work breakdown structure) in Microsoft Project® software.
5. Send the Microsoft Project® file as an e-mail attachment to your instructor for written feedback within 24 hours.

Module 5: Dynamic Project Scheduling

1. Read to page 36 in the *Essentials of Project Management* e-book.
2. Watch the Module 5 lecture and the software video on the course website.
3. After you receive approval of your work breakdown structure, link the achievements to tasks that must be done before and after them. Send your instructor the resulting Microsoft Project® file for review and feedback. Along with your written feedback, your instructor will send you information to use on your next assignment.

Module 6: Resources and the Estimating Process

1. Read to page 44 in the *Essentials of Project Management* e-book.
2. Watch the Module 6 lecture and the software video on the course website.
3. Using your feedback on the last assignment, you interact with your crew members to develop estimates of the work required for their tasks. Using your Microsoft Project® schedule, enter the duration of these estimates to complete the schedule.
4. Send the Microsoft Project® file as an e-mail attachment to your instructor for feedback.

Module 7: Fine-tune the Schedule

1. Read to page 47 in the *Essentials of Project Management* e-book.
2. Watch the Module 7 lecture and software movie on the course website.
3. Develop your final project schedule proposal and fine-tune the schedule to finish as early as possible. Also create two alternative schedules that allow the project to finish earlier.
4. Send your project schedules and a brief write up of the alternative schedules to your instructor for written feedback and coaching.

Module 8: Team Leadership and Managing Conflict

1. Read to page 51 in the *Essentials of Project Management* e-book.
2. Watch the Module 8 lecture on the course website.
3. Read Part 8 of the Vailcrest Project Case Study:

Vailcrest Case Study Part 8 Summary (In the actual course, you'll read the entire case study):

Conflict breaks out among the executives. Each of them has their own agenda and their disagreements have the potential to threaten the success of the project. You are responsible for implementing a conflict resolution strategy that will satisfy the executives and bring cooperation to your project crew. Your mediation skills will either resolve the conflict or create even more tension and further jeopardize the project.

4. In an e-mail or a Word document attached to an e-mail, send your instructor a brief write up of the approach and conflict resolution strategy you'd use to address this situation. Write it as a speech you will deliver to the crew members and customer executives. Include possible follow-up action to take after your speech. Your instructor will provide you with written feedback.

Module 9: Tracking Progress and Reporting Status

1. Read to page 60 in the *Essentials of Project Management* e-book. Then read pages 82 - 163 in *Presentations That Persuade and Motivate*.
2. Watch the Module 9 lecture and the software video on the course website.
3. Read Part 9 of the Vailcrest Project Case Study:

Vailcrest Case Study Part 9 Summary (In the actual course, you'll read the entire case study):

You are in the middle of preparing your status report when Dan Morton, Vailcrest's owner and president, brings up another concern. He is worried about a new competitor that is causing Vailcrest to lose a good deal of business. He wants to

accelerate the project and asks you how much you can cut the duration by modifying the project scope. Your task is to maintain the integrity of the project while also keeping Dan satisfied.

4. Use the status data your instructor sent you with your feedback on Module 8. Follow the process you learned in this module for tracking project progress and analyze what has happened to the project.
5. Prepare a status report in your course template describing what has happened and the results if no corrective action is taken. Then identify your solutions and trade-offs to remedy the situation.
6. Send the template and the updated Microsoft Project® schedule with the actual results to your instructor for written feedback and coaching.
7. Schedule a live status report presentation with your instructor. Your goal in this live interaction is to secure the customer's approval to proceed with your plan for corrective action.

Module 10: Final Exam

The final exam consists of 10 short essay questions. It is open book and open notes with a 60 minute time limit. It must be proctored if you wish to earn the PMI® professional development units. Most people ask their boss but any licensed professional (lawyer, accountant, etc.) who is not a relative can serve as your proctor. Send your instructor an e-mail with the date and time you wish to take the final exam.

123 Advanced Construction Project Management

Course Syllabus

Course Textbooks

- *Construction Project Management*, by Mike Angerame and Dick Billows, PMP, GCA, 2010
- *The Art of Speed Reading People*, by Paul Tieger and Barbara Barron-Tieger

Learning Objectives

Working individually with your personal instructor, you will learn advanced techniques and a methodology for managing large commercial construction projects. You will demonstrate the ability to execute each of these techniques at a professional level:

1. Strategic planning with customer/owner executives to identify objectives linked to company strategy
2. Stakeholder identification, analysis & management to control the owner's expectations
3. Risk identification, analysis and design of risk response strategies
4. Advanced time and cost estimating plus scheduling using best practice techniques
5. Tracking progress using earned value and variance analysis, then reporting status
6. Assessing the impact of change requests on the project scope, budget and duration
7. Making persuasive live project presentations; accurately assessing the personality types of the attendees and tailoring your communications to fit them
8. Optimizing schedules and budgets in Microsoft Project® software.

How You Learn

You'll practice each of the steps on a large facility construction project case study involving a crew, subcontractors, vendors, and a number of specialists. You will work privately with your instructor and receive personal written feedback and coaching on all your work. Your instructor will ask you to correct or improve any assignment that is not at a professional level. You can ask your instructor questions whenever you wish via e-mail, phone call, or live web meeting. You are guaranteed a response within 24 hours.

Course Process

Each of the modules in the course has a textbook reading assignment, a lecture video on the course website, and construction case study-based assignments which you complete and send to your instructor via e-mail. You will also work with your instructor on four live project simulations over the Internet, scheduled at mutually convenient times. The course requires approximately 60 hours of effort for the reading, lectures, and case study-based assignments. You may take up to one year to complete the course.

Grading Criteria and Credits

To pass the course you must earn a grade of 80% (B) on all course assignments and the 60 minute final exam. Your instructor will ask you to revise any assignments that are below the 80% level. To earn PMI® (Project Management Institute) PDUs (Professional Development Units) for this course, your final exam must be proctored by an organizational superior or a licensed professional, such as an attorney or certified public accountant.

Streaming Media Lectures

You will view the lectures from the course website. Our server will stream the high-definition videos to you using the latest dynamic technology and constantly monitor your available bandwidth, streaming the appropriate size file for your bandwidth. Students watching from their workplace or from home with a cable TV speed connection will not encounter any buffering.

Live Presentations and Simulations

Because effective interpersonal relationships are such an important skill for project managers, you will practice negotiating scope, estimating with your crew, presenting plans and status reports, and answering questions from owner executives. These project simulations will take place privately between you and your instructor, by e-mail exchanges and in four live Internet meetings at mutually agreed upon times. In all of these simulations, you will play the role of the project manager and your instructor will play the sponsor, stakeholders, and team members. Your instructor will review your presentations and send you feedback on your content as well as your speaking and presentation techniques.

You will get a copy of your presentation videos with feedback so you can improve your skills and increase your comfort giving presentations to executives. Your skill level will improve as you give each of these presentations.

Apply What You Have Learned to a Project Case Study

You will practice each course technique on the Vailcrest Mega-Expansion Project Case Study, receiving coaching and written feedback from your instructor on all your work. While only a summary of the Vailcrest Mega-Expansion Project Case Study is provided within each module below, you will read the entire case study in the actual course.

Course Sequence

Module 1: Strategic Planning

9. Read Chapters 1-3 in *Construction Project Management*.
10. Watch the Module 1 lecture on the course website.
11. Read Part 1 of the Vailcrest Mega-Expansion Project case study:

Vailcrest Mega-Expansion Project Case Study: Part 1 Summary (In the actual course, you'll read the entire case study):

You return to the Vailcrest Corporation where you worked 5 years ago as a rookie construction project manager. Dan Morton, President of Vailcrest, begged you to come back to help him cope with threats from larger competitors. Dan wants to expand to several new locations and improve service to customers at the same time.

You quickly discover that the corporation's executive group still has tensions and conflicting agendas that have only grown worse during your absence.

Before your meeting with the Vailcrest executive staff, Dan Morton tells you that because the current project plan is so disorganized the staff is already focusing on avoiding blame rather than being productive. You will begin your challenging task by defining a new facility expansion project scope and major deliverables.

1. In a live simulation with your instructor, ask Dan and the 3 VPs questions about the facility expansion project they recently launched. The project is headed for disaster and it is your job to fix it.
2. Secure their agreement on a revised strategy with a defined scope and achievement network for the Mega-Expansion Project.
3. Send your plan and achievement network and the constraints of the project to your instructor for written feedback within 24 hours.

Module 2: Managing Stakeholders & Requirements

1. Read Chapters 1 through 4 in *The Art of Speed Reading People*.
2. Watch the Module 2 lecture on the course website.
3. Watch the executive stakeholder videos on the course website and read the additional information in your case study about the project's stakeholders.
4. Prepare a stakeholder management & communication plan in your course template for each of the ten stakeholders:
 - a. After watching the videos of the executive stakeholders, start by identifying whether each person is an introvert or an extravert.
 - b. Then identify their temperament as one of the four types discussed in the lecture and reading.
 - c. Write how you will communicate and deal with each of them individually.
 - d. Write a plan for dealing with the group as a whole.
5. Send the completed plan to your instructor for written feedback within 24 hours.

Module 3: Project Launch & Requirements

4. Read Chapter 4 in *Construction Project Management* and read the software appendix at the end of that book.
5. Contact your instructor and suggest 2-3 days/times for the 30 minute live online simulation. In this meeting you will:

Project Management Certification & Training

Class Size=1...Just You & Your Instructor

- k. Attend a meeting with Dan Morton and all the stakeholders. Watch the entire video of the stakeholders.
 - l. Take over the meeting and give the stakeholders a 5 minute presentation on the scope and major achievements approved by Dan. Also address their concerns about how the project will be managed. Explain how they will participate in the decomposition of one of the major deliverables into lower-level deliverables.
 - m. Then you will guide the group through the decomposition process for the major deliverables. Make sure to apply your communications strategy developed in the last assignment to the meeting with each of the individual stakeholders.
6. Your instructor will send you the transcript with written feedback and coaching. You will also receive comments on your presentation during the live simulation.
 7. Using the requirements you gathered in the meeting, complete the decomposition of the major deliverables into a detailed network of deliverables and send it to your instructor for written feedback.
 8. Using your instructor's feedback on the deliverables network, make adjustments to the project schedule. Send it to your instructor for feedback within 24 hours.

Module 4: Advanced Estimating Techniques

1. Read Chapter 5 in *Construction Project Management*.

2. Watch the Module 4 lecture on the course website.

3. Watch the videos of the project crew members in your estimating session and remember the issues that arose with the prior project manager's mishandling of the previous estimating process. Then, using your communication plan for each individual, write a response to the crew members' comments about your request for an estimate and ask them to provide estimating data. Explain to each of them what you need for the estimating technique you are going to use with their deliverable, and send this write-up to your instructor for written feedback within 24 hours:

- f. Monica will do an analogous estimate
- g. Judd will do a parametric estimate
- h. Lucien will do a PERT estimate
- i. Peggy will do a PERT estimate
- j. Maria will do a PERT estimate

4. Using your instructor's feedback and the data you receive from the crew, calculate the work estimates and prepare a two part presentation. Schedule a day and time with your instructor for this live web meeting:

- a. For the group of 5 stakeholders, explain how the estimates will work this time, rather than with the previous project manager, and why they can have confidence in your process. This presentation will be filmed for feedback.
- b. Meet individually with each of the crew members in a text chat. Show them a slide in your PowerPoint template with calculations for their estimates using their data. Explain how tracking of their estimate will work and answer their questions about the estimating process and their accountability. Your instructor will send you feedback on how you handled the presentation to the group as well as the individual meetings with your crew.

Module 5: Advanced Risk Management

1. Read pages 61-65 in *Construction Project Management* and the additional risk management articles on the course website listed under Module 5.
2. Watch the Module 5 lecture on the course website.
3. Read Part 5 of the Vailcrest Mega-Expansion Project case study:

Vailcrest Mega-Expansion Project Case Study: Part 5 Summary (In the actual course, you'll read the entire case study):

You have received a rough risk identification list from the Vailcrest executives, as well as the qualitative assessment of each risk from the company managers. You must now review the risk identification process and the qualitative risk assessments and suggest which risks to omit, which to analyze quantitatively, and for which to develop risk responses.

You meet again with the executives and ask them to obtain data on these risks. You also review previous Vailcrest construction projects for related data and then develop quantitative data for risk analysis. Using this data, your next task is to perform an analysis, calculate an expected value, and plan responses for each risk, while also estimating the cost and impact on the schedule.

4. Using your course template, complete each risk management step:
 - e. Review the risk identification process and the qualitative risk assessments done by the executives. Enter the data in the PowerPoint template and recommend which risks should be omitted from the process, which should be analyzed quantitatively and for which risks a response should be developed. Send it to your instructor for written feedback.
 - f. Using the data you receive from your instructor along with your feedback on Part A, complete the quantitative risk analysis, and plan a risk response for the top 3 risks using your PowerPoint template. Send your instructor your completed risk management plan in the template and received written feedback within 24 hours.

Module 6: Optimization & Change Control

5. Read Chapters 6 and 7 in *Construction Project Management*.
6. Watch the Module 6 lecture and software video on the course website.
7. Finalize the project schedule from Assignment 3.
8. Apply the optimization techniques to the project schedule and send it to your instructor for review and feedback.
9. Read Part 6 of the Vailcrest Mega-Expansion Project Case Study and using the change control techniques in the reading and lecture, develop a change control analysis for each of the requests in the case:

Vailcrest Mega-Expansion Project Case Study: Part 6 Summary (In the actual course, you'll read the entire case study):

It is the day before your first formal status report for the Vailcrest Mega-Expansion Project. You are trying to finalize your presentation data, but you have lost some time dealing with the demands of the executives. Dan is nervous about the budget and risks involved and also wants the date of the grand opening moved up two weeks. You also have a significant amount of executives' change requests to process and add to tomorrow's status report.

10. Send your change request analysis in the template along with the Microsoft Project® schedule version for each request that you used to quantify the impacts.
11. Your instructor will send you feedback, a revised schedule, and status data from your project crew for use in the next assignment.

Module 7: Corrective Action, Earned Value, & Forecasting

12. Read Chapter 8 in *Construction Project Management*.
13. Watch the Module 7 lecture and software video on the course website.
14. Use the project crew's status reports that your instructor sent you and enter the actual results into your schedule.
15. Analyze the situation and identify the problems you face. Use earned value and variance data analysis to document the consequences for your next presentation. Develop plans for corrective action in the course template, which will be the basis of your presentation. Use Microsoft Project® software to model the requirements, costs, additional resources and schedule impact of the corrective action. Model 3 alternative recovery strategies with separate project schedules for reducing the scope, duration and cost for the project.
16. Send the completed template to your instructor for review and feedback and suggest 2 or 3 appointment dates and times for this live project simulation. Your goal is to secure executive approval to proceed with your plan for corrective action. The simulation should take approximately 20 minutes with:
 - n. 10 minute filmed session devoted to your presentation of the change requests and project status
 - o. 10 minutes devoted to answering the user executives' questions in a text chat.

Module 8: Final Exam

The final exam consists of 10 short essay questions. It is open book and open notes with a 60 minute time limit. It must be proctored if you wish to earn the PMI® professional development units (PDU) s. Most people ask their boss but any licensed professional (lawyer, accountant, etc.) who is not a relative can serve as your proctor. Send your instructor an e-mail with the date and time you wish to take the final exam.