POINTFUL EDUCATION

Project Management

Syllabus

» Course Overview

The Project Management course is intended to identify the key components of a career as a project manager. Students will review the basics in project management terminology, such as designating distinctions among projects, products, programs, and portfolios. They will delve into concepts like managing deliverables and creating engaging relationships with stakeholders. The primary components of project planning will be laid out and described in detail. Students will explore teams and organizational structures. They will discover project management tools and innovation being used in the industry. Overall, they will develop a greater understanding of the mechanisms that are in place to effectively carry out projects of any size through specific project management techniques.

» Course Outline by Module

Module 1	Introduction to Project Management	**Module 7**	Agile Projects Part I
Module 2	Project Management Planning Part I	**Module 8**	Agile Projects Part II
Module 3	Project Management Planning Part II	**Module 9**	Agile Projects Part III
Module 4	Tools and Systems	**Module 10**	Agile Projects Part IV
Module 5	Traditional Plan-Based Methodologies and Scheduling	**Module 11**	Business Analysis Roles and Responsibilities
Module 6	Executing and Controlling Traditional Plan-Based Projects	**Module 12**	Product Roadmap

POINTFUL EDUCATION

Project Management

Syllabus

» Module Overview and Learning Objectives

Module 1. Introduction to Project Management

Project management is complex and has a lot of moving parts. It is always a good idea to start with some basic definitions that will help you gain a better understanding of what your role as a project manager will be like. You'll be able to differentiate among the various outcomes of a project like products and services. You will gain an understanding of how a business case is used to prove your purpose to stakeholders and why developing a comprehensive project scope is essential.

***Learning Objectives*:** In this module, students will:

- Define a project, product, program, and portfolio
- Define project management, a business case, project scope, and deliverables
- Define a milestone and task
- List components of a project and a business case
- Define issues, risks, assumptions, and constraints

Module 2. Project Management Planning Part I

There are a number of components involved in project management planning. In addition, there are different approaches that project managers and teams can take when working on projects. Deciding how to carry out a project varies based on its size, scope, stakeholders, and a number of other considerations. There are several stages of project planning as well. Each stage serves a specific purpose for the project's overall success. Project management terminology is its own language. You will need to know it to be able to understand and use it. You'll learn a number of useful project management terms in the lessons of these modules.

***Learning Objectives*:** In this module, students will:

- Identify features of traditional plan-based delivery and agile delivery
- Identify project management ethics (refer to PMI code of ethics)
- Identify concepts of a project management plan (e.g., cost, quality, risk, schedule, etc.)
- Define the different types of resources (e.g., human and material)
- Identify common terminology in business concepts related to project management (e.g., change management, culture, strategy, governance, trade-off, performance metrics, prioritization, categorization, work breakdown, reporting, conflict, accuracy vs. precision, leadership, and motivation, etc.)

Module 3. Project Management Planning Part II

An organization's structure can greatly impact nearly everything that happens within the organization. When employees are given the freedom to make decisions and present ideas, it is very different from a company where all the decisions come from the top down. There are situations where both of these structures can be useful. It is highly dependent on the company itself and decisions are made and information is communicated. In addition to organizational structure, this module will look more in-depth at the importance of stakeholders and stakeholder relationship management. This is an essential part of project management that should not be underestimated or overlooked.

***Learning Objectives*:** In this module, students will:

- Identify the features of different organizational environments (e.g., co-location and virtual teams, decentralized and centralized organization, and organizational structures [functional, matrix, projectized])
- Describe organizational structures (e.g., co-location and virtual teams, decentralized and centralized organization, and organizational structures [functional, matrix, projectized])
- Identify benefits and concepts associated with risk register and the stakeholder register
- Define the key stakeholder roles such as project managers, sponsors, team leaders, team members, project clients, etc.

- Define the key stakeholder responsibilities such as project managers, sponsors, team leaders, team members, project clients, etc.
- Identify leadership and management

Module 4. Tools and Systems

Having the right tools and resources is essential for a project manager to be effective. Even small-scale projects require close attention to details like budgets, project teams, suppliers, schedules, and resources. There are many tools to use to make managing these things easier. In this module, we'll discuss how specific tools are used for project management components like project scheduling, team management, information gathering, communication, and generating reports. There are a variety of tools at your fingertips for you to explore and integrate into your project management career.

***Learning Objectives*:** In this module, students will:

- Identify the typical tools used for creating a project schedule.
- Define the characteristics and benefits of various project management tools.
- Define common information gathering tools or techniques.
- Describe the components of an effective meeting.

Module 5. Traditional Plan-Based Methodologies and Scheduling

Project planning and the implementation of the work breakdown structure, or WBS, are complex and require enormous attention to detail as well as knowledge of project management software and organization. Utilizing strategies like Gantt charts, risk management, work packages, defining dependencies, and project governance is essential. You will need to familiarize yourself with the various techniques to implement throughout each stage of project planning from initiation to closure. Fortunately, the lessons in this module are full of information and tips to help you manage all of these techniques and strategies!

***Learning Objectives*:** In this module, students will:

- Identify the primary rationale for traditional plan-based projects and the process groups and knowledge areas (e.g., cost, quality, risk, schedule, etc.).
- Identify project phases and the correct order of the phases.

- Define a typical project structure for a traditional plan-based approach.
- Identify the steps to create a schedule.
- Define a work breakdown structure.

Module 6. Executing and Controlling Traditional Plan-Based Projects

Monitoring a project is key to measuring its success. Project managers have to not only manage all of the project teams, engage stakeholders, and stay on track with budgets and timeframes, but they have to understand how to calculate the critical path for their projects to know if they are headed for success or if their project is running into trouble. They have to exercise key controls to understand from a measurable standpoint what kind of progress they are making and what adjustments need to be in place if they are not on track. This takes a keen eye, strong organizational skills, and analytical skills that are second to none. The lessons in this module will help you understand how to monitor and control the projects you manage so that you can keep them on track all the way to success.

***Learning Objectives*:** In this module, students will:

- List the types of dependencies (e.g., sequence, start to start, finish to start, etc.).
- Define a critical path.
- Describe the project controls in traditional plan-based projects (e.g., earned value, baselines, etc.).
- Identify monitor and controlling techniques in a traditional plan-based projects.

Module 7. Agile Projects Part I

Due to the popularity of agile methodology, it is likely that most organizations are using some attributes of it in their project management techniques. This is probably in software development, but can extend into a myriad of other areas as well. Project management and, really, all aspects of work are influenced by agile methods. The traditional waterfall methodology developed decades ago still exists and is still widely used. But many of the iterations it has experienced over recent years has been the result of implementing agile

techniques to make it more effective and less rigid. The agile method, as you will continue to learn, focuses on creating lean and minimum viable products (MVPs) that go through varying stages of development. Everyone is working toward a common goal with the most efficiency and the fewest resources.

***Learning Objectives*:** In this module, students will:

- Identify the primary rationale for agile and traditional plan based projects.
- Identify the key tenants/principles of agile.
- Recognize hybridization.
- Define the use of transparency in Agile projects.
- Describe the principle of Servant Leadership.

.

Module 8. Agile Projects Part II

No two projects are created equal. Some projects are predictable and uncomplicated. Others are risky and complex. Each project requires a unique approach to how it should be managed. Applying the same amount of project management tenacity to every single project is wasteful of your energy. Despite knowing this, some organizations and project managers do exactly this. They do not deviate from what is known and what has been done in the past. Taking a step back to truly examine the best approach and not just the best-known approach will save time, money, energy, and every other resource a project demands. Throughout this module, we'll examine the many agile methodologies that can be applied to a multitude of projects. Forming the project management style around a project instead of trying to fit a project into a management style is the way to go!

***Learning Objectives*:** In this module, students will:

- Identify common agile methodologies.
- State the components of agile sequencing.
- Identify the factors/inputs for determining the framework (e.g., time, scope, etc.).
- Identify agile project progress metrics.
- State the importance of agile project tracking.

Module 9. Agile Projects Part III

Roles and leadership within agile project management methodologies look different than they do within traditional project management. A project manager in the agile (and lean) world of project management is a role that is not held among just one individual, but is distributed between the agile team members. Project management skills, knowledge, talent, and credentials are nonetheless highly valuable in these types of projects. The structure of the overall method is what is different, as you have learned. The collaborative effort instead has roles like project lead, Scrum master, and other agile project team members. Any agile team requires a set of strong principles and best practices to operate successfully. Throughout the lessons and activities in this module, you will learn about all of this as well as how teams collaborate to achieve project goals.

***Learning Objectives*:** In this module, students will:

- Define the role of the agile project lead.
- Define the role of the agile project member.
- Identify good team principles in agile project management.
- Identify examples of team collaboration in agile project management.
- Describe the project controls in agile projects.

Module 10. Agile Projects Part IV

To round out your knowledge of the agile project management methodology, this module will focus on some additional elements of agile project management that are unique to the framework. In many cases, these differences come down to terminology and how the terms are applied within agile methodologies. For example, you will learn about decomposition. Decomposition refers to breaking down deliverables progressively into smaller and smaller components. This is not used in the traditional waterfall method because the deliverables come at the end of the project. In agile methodologies, deliverables are provided to the user throughout so that improvements and changes can be made. In addition, you will review types of agile frameworks, project controls, monitoring, and work prioritization.

Learning Objectives: In this module, students will:

- Describe the task decomposition process in an agile project management.
- Describe the task prioritization process in an agile project management.
- Identify monitor and controlling techniques in agile projects.
- Identify the components of a specific agile plan (e.g., Scrum, XP, Scaled Agile Framework, Kanban, etc.).

Module 11. Business Analysis Roles and Responsibilities

By now you undoubtedly understand that there are a lot of pieces that need to be in place to develop a project plan and to keep a project moving forward. Throughout this module, you will continue to learn about many of the business roles and responsibilities that lie with stakeholders. You will also understand the difference between a stakeholder and a "key" stakeholder and how communication and other components may be different among various stakeholders. You will assess effective communication plans and understand how to develop them. Finally, you will spend the last few lessons learning about project requirements. There are many things to consider when creating requirements, including whether the requirements are functional or non-functional. You will review ways to gather information when compiling requirements for the project as well as how to incorporate them meaningfully into a backlog of items.

Learning Objectives: In this module, students will:

- List critical/core stakeholder roles and responsibilities (e.g., business analysts, business sponsor, process owner, product manager, product owner, etc.).
- Define types of roles (internal vs external).
- List elements in a communication plan and identify communication channels/tools.
- List types of requirements (e.g., functional, nonfunctional, stakeholder, security, solution, business, migrating, market research, bench marking, etc.).
- List ways of gathering requirements and tools used for capturing requirements (e.g., use case, user stories, process diagrams, etc.).
- Define requirements traceability matrix/product backlog.

Module 12. Product Roadmap

You have learned about the importance of project plans and project timelines. Throughout this module, you will be learning about another vital component - the product roadmap. Product roadmaps are what streamline the goals of a business or a project into specific paths. Within a project, the roadmap can wind its way through multiple timelines for continual development of a product. A product roadmap has its own set of features and objectives, all of which you will learn about throughout the lessons in this module.

***Learning Objectives*:** In this module, students will:

- Define what a product roadmap is.
- List product roadmap components.
- Define a release plan.
- Identify components of product delivery.
- Define components of project/product acceptance (e.g., requirements traceability matrix/product backlog, Transition Plan, etc.).