Some Coursera courses on Agile, Project management

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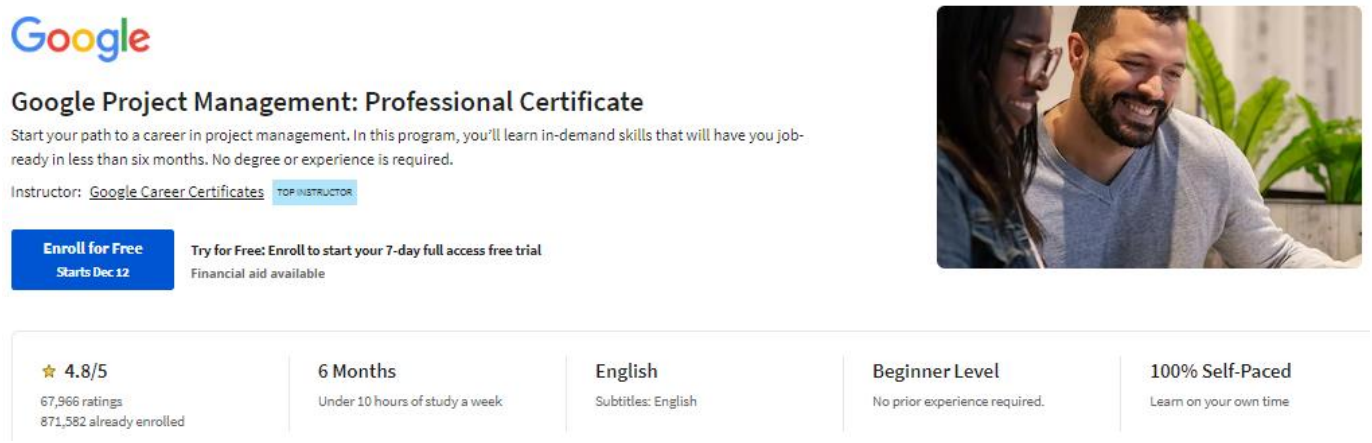
Google Project Management Professional Certificate (→mainly for IT)

https://www.coursera.org/professional-certificates/google-project-management



- Gain an immersive understanding of the practices and skills needed to succeed in an entry-level project management role
- Learn how to create effective project documentation and artifacts throughout the various phases of a project
- Learn the foundations of Agile project management, with a focus on implementing Scrum events, building Scrum artifacts, and understanding Scrum roles
- Practice strategic communication, problem-solving, and stakeholder management through real-world scenarios

Course 1: Foundations of Project Management

This course is the first in a series of six to equip you with the skills you need to apply to introductory-level roles in project management. Project managers play a key role in leading, planning and implementing critical projects to help their organizations succeed. In this course, you'll discover foundational project management terminology and gain a deeper understanding of the role and responsibilities of a project manager. We'll also introduce you to the kinds of jobs you might pursue after completing this program. Throughout the program, you'll learn from current Google project managers, who can provide you with a multi-dimensional educational experience that will help you build your skills for on-the-job application.

Learners who complete this program should be equipped to apply for introductory-level jobs as project managers. No previous experience is necessary.

By the end of this course, you will be able to:

- Define project management and describe what constitutes a project.
- Explore project management roles and responsibilities across a variety of industries.
- Detail the core skills that help a project manager be successful.
- Describe the life cycle of a project and explain the significance of each phase.

- Compare different program management methodologies and approaches and determine which is most effective for a given project.
- Define organizational structure and culture and explain how it impacts project management.
- Define change management and describe the role of the project manager in the process.

Course 2: Project Initiation: Starting a Successful Project

This is the second course in the Google Project Management Certificate program. This course will show you how to set a project up for success in the first phase of the project life cycle: the project initiation phase. In exploring the key components of this phase, you'll learn how to define and manage project goals, deliverables, scope, and success criteria. You'll discover how to use tools and templates like stakeholder analysis grids and project charters to help you set project expectations and communicate roles and responsibilities. Current Google project managers will continue to instruct and provide you with hands-on approaches for accomplishing these tasks while showing you the best project management tools and resources for the job at hand.

Learners who complete this program should be equipped to apply for introductory-level jobs as project managers. No previous experience is necessary.

By the end of this course, you will be able to:

- Understand the significance of the project initiation phase of the project life cycle.
- Describe the key components of the project initiation phase.
- Determine a project's benefits and costs.
- Define and create measurable project goals and deliverables.
- Define project scope and differentiate among tasks that are in-scope and out-of-scope.
- Understand how to manage scope creep to avoid impacting project goals.
- Define and measure a project's success criteria.
- Complete a stakeholder analysis and explain its significance.
- Utilize RACI charts to define and communicate project team member responsibilities.
- Understand the key components of project charters and develop a project charter for project initiation.
- Evaluate various project management tools to meet project needs.

Course 3: Project Planning: Putting It All Together

This is the third course in the Google Project Management Certificate program. This course will explore how to map out a project in the second phase of the project life cycle: the project planning phase. You will examine the key components of a project plan, how to make accurate time estimates, and how to set milestones. Next, you will learn how to build and manage a budget and how the procurement processes work. Then, you will discover tools that can help you identify and manage different types of risk and how to use a risk management plan to communicate and resolve risks. Finally, you will explore how to draft and manage a communication plan and how to organize project documentation. Current Google project managers will continue to instruct and provide you with hands-on approaches for accomplishing these tasks while showing you the best project management tools and resources for the job at hand.

Learners who complete this program should be equipped to apply for introductory-level jobs as project managers. No previous experience is necessary.

By the end of this course, you will be able to:

- Describe the components of the project planning phase and their significance.
- Explain why milestones are important and how to set them.
- Make accurate time estimates and describe techniques for acquiring them from team members.
- Identify tools and best practices to build a project plan and risk management plan.
- Describe how to estimate, track, and maintain a budget.
- Explain the procurement process and identify key procurement documentation.
- Draft a communication plan and explain how to manage it.
- Explain why milestones are important and how to set them.
- Explain why a project plan is necessary and what components it contains.
- Make accurate time estimates and describe techniques for acquiring them from team members.

Course 4: Project Execution: Running the Project

This is the fourth course in the Google Project Management Certificate program. This course will delve into the execution and closing phases of the project life cycle. You will learn what aspects of a project to track and how to track them. You will also learn how to effectively manage and communicate changes, dependencies, and risks. As you explore quality management, you will learn how to measure customer satisfaction and implement continuous improvement and process improvement techniques. Next, you will examine how to prioritize data, how to use data to inform your decision-making, and how to effectively present that data. Then, you will strengthen your leadership skills as you study the stages of team development and how to manage team dynamics. After that, you will discover tools that provide effective project team communication, how to organize and facilitate meetings, and how to effectively communicate project status updates. Finally, you will examine the steps of the project closing process and how to create and share project closing documentation. Current Google project managers will continue to instruct and provide you with hands-on approaches for accomplishing these tasks while showing you the best project management tools and resources for the job at hand.

Learners who complete this program should be equipped to apply for introductory-level jobs as project managers. No previous experience is necessary.

By the end of this course, you will be able to:

- Identify what aspects of a project to track and compare different tracking methods.
- Discuss how to effectively manage and communicate changes, dependencies, and risks.
- Explain the key quality management concepts of quality standards, quality planning, quality assurance, and quality control.
- Describe how to create continuous improvement and process improvement and how to measure customer satisfaction.
- Explain the purpose of a retrospective and describe how to conduct one.
- Demonstrate how to prioritize and analyze data and how to communicate a project’s data
- -informed story.
- Identify tools that provide effective project team communication and explore best practices for communicating project status updates.
- Describe the steps of the closing process for stakeholders, the project team, and project managers.

Course 5: Agile Project Management

This is the fifth course in the Google Project Management Certificate program. This course will explore the history, approach, and philosophy of Agile project management, including the Scrum framework. You will learn how to differentiate and blend Agile and other project management approaches. As you progress through the course, you will learn more about Scrum, exploring its pillars and values and comparing essential Scrum team roles. You will discover how to build, manage, and refine a product backlog, implement Agile's value-driven delivery strategies, and define a value roadmap. You will also learn strategies to effectively organize the five important Scrum events for a Scrum team, introduce an Agile or Scrum approach to an organization, and coach an Agile team. Finally, you will learn how to search for and land opportunities in Agile roles. Current Google project managers will continue to instruct and provide you with the hands-on approaches, tools, and resources to meet your goals.

Learners who complete this program should be equipped to apply for introductory-level jobs as project managers. No previous experience is necessary.

By the end of this course, you will be able to:

- Explain the Agile project management approach and philosophy, including values and principles.
- Explain the pillars of Scrum and how they support Scrum values.
- Identify and compare the essential roles in a Scrum team and what makes them effective.
- Build and manage a Product Backlog and perform Backlog Refinement.
- Describe the five important Scrum events and how to set up each event for a Scrum team.
- Implement Agile's value-driven delivery strategies and define a value roadmap.
- Explain how to coach an Agile team and help them overcome challenges.
- Conduct a job search for an Agile role and learn how to succeed in your interview.

Course 6: Capstone: Applying Project Management in the Real World

In this final, capstone course of the Google Project Management Certificate, you will practice applying the project management knowledge and skills you have learned so far. We encourage learners to complete Courses 1-5 before beginning the final course, as they provide the foundation necessary to complete the activities in this course.

As you progress through this course, you will "observe" a project manager in a real-world scenario and complete dozens of hands-on activities.

You will:

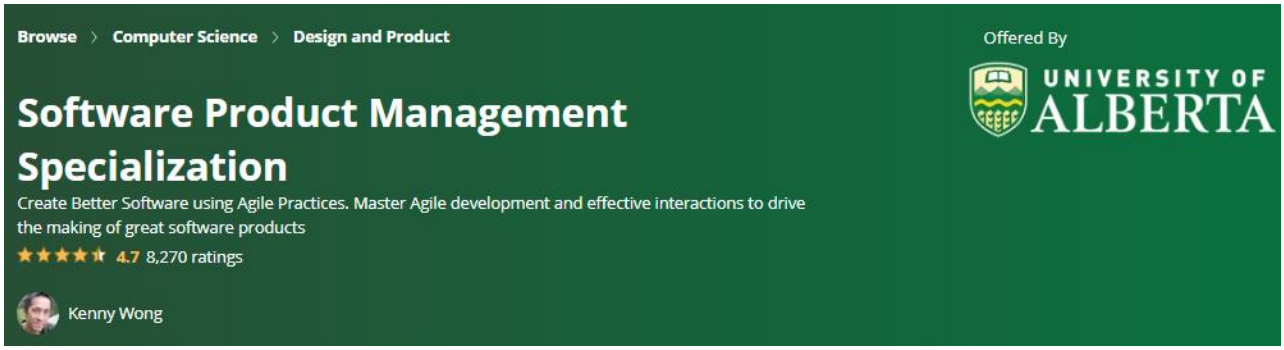
- analyze project documents to identify project requirements and evaluate stakeholders
- complete a project charter and use it as a tool to align project scope and goals among stakeholders
- identify tasks and milestones and document and prioritize them in a project plan
- define quality management standards and explore how to effectively share qualitative data
- demonstrate your project's impact through effective reporting

By the end of this course, you will have developed a portfolio of project management artifacts that will demonstrate the skills you have learned throughout the entire program, such as your ability to manage stakeholders and teams, organize plans, and communicate project details. These artifacts can exhibit your career readiness when applying for jobs in the field.

To further prepare you to interview for project management jobs, you will reflect on past projects, develop an "elevator pitch," and anticipate common interview questions. Current Google project managers will continue to instruct and provide you with the strategies, tools, and resources to meet your goals. After completing this program, you should be equipped to apply for introductory-level jobs as a project manager. You will also have the opportunity to claim a certification of completion badge that will be recognizable to employers.

Software Product Management Specialization (6 courses) – Uni of Alberta

https://www.coursera.org/specializations/product-management



In this Software Product Management Specialization, you will master Agile software management practices to lead a team of developers and interact with clients.

In the final Capstone Project, you will practice and apply management techniques to realistic scenarios that you will face as a Software Product Manager. You will have the opportunity to share your experiences and learn from the insights of others as part of a Software Product Management.

You will gain practical management experience in a safe, simulated software production setting. You will apply agile practices and techniques to conquer industry-inspired challenges. Interacting with a realistic client, you will discern what they want, what they truly need, and express that as software requirements to drive software production. Upon completing the capstone, you will be prepared to advance your career as a confident software product management professional.

Course 1: Introduction to Software Product Management

This course highlights the importance and role of software product management. It also provides an overview of the specialization, as well as its goals, structure, and expectations. The course explains the value of process, requirements, planning, and monitoring in producing better software.

Course 2: Software Processes and Agile Practices

This course delves into a variety of processes to structure software development. It also covers the foundations of core Agile practices, such as Extreme Programming and Scrum.

Course 3: Client Needs and Software Requirements

This course covers practical techniques to elicit and express software requirements from client interactions.

Course 4: Agile Planning for Software Products

This course covers the techniques required to break down and map requirements into plans that will ultimately drive software production.

Upon successful completion of this course, you will be able to:

- Create effective plans for software development
- Map user requirements to developer tasks
- Assess and plan for project risks
- Apply velocity-driven planning techniques
- Generate work estimates for software products

Course 5: Reviews & Metrics for Software Improvements

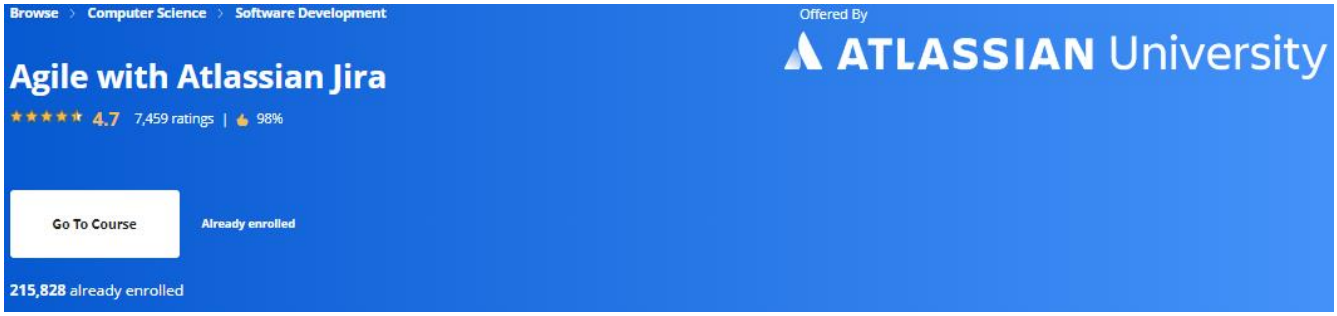
This course covers techniques for monitoring your projects in order to align client needs, project plans, and software production. It focuses on metrics and reviews to track and improve project progress and software quality.

Course 6: Software Product Management Capstone

In this six-week capstone course, you will gain practical management experience in a safe, simulated software production setting. You will apply Agile practices and techniques to conquer industry-inspired challenges. Interacting with a realistic client, you will discern what they want and express what they truly need in software requirements to drive software production. Upon completing the capstone, you will be prepared to advance your career as a confident software product management professional.

Agile with Atlassian Jira (1course = 4 weeks)

https://www.coursera.org/learn/agile-atlassian-jira

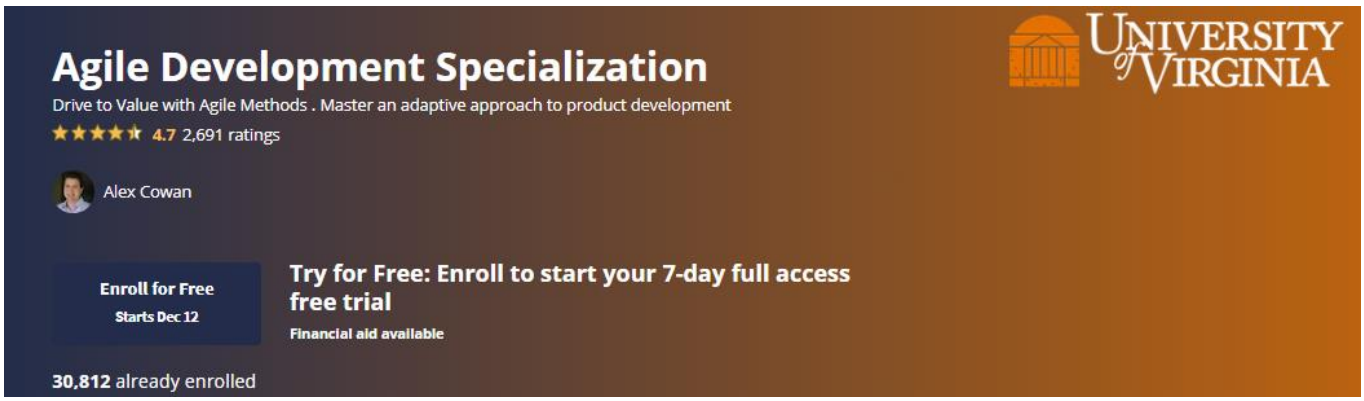


This course discusses common foundational principles and practices used by agile methodologies, providing you with a flexible set of tools to use in your role (e.g. product owner, scrum master, project manager, team member) on an agile team. Learn agile and lean principles, including kanban and scrum, and use Jira Software Cloud as the tool to apply hands-on exercises in these topics. The course includes instruction on company-managed and team-managed Jira projects.

After completing this course, you will have a strong foundational understanding of agile principles and practices and hands-on experience with Jira Software Cloud. Site administrators will be able to perform basic administration tasks. You will be able to continuously configure your Jira projects to match your team's custom agile methodology.

Agile Development Specialization (4 courses)- Uni of Virginia

https://www.coursera.org/specializations/agile-development



- How to determine what's valuable to a user early by focusing your team on testable narratives and creating a strong shared perspective
- How to drive a focus on outcomes over outputs by facilitating a culture of experimentation and a test-driven, results-driven approach to agile
- How to charter and focus an analytics (and data science) program that enhances your core objectives
- How to iteratively identify and test the right agile practices from leading frameworks like scrum, XP, and kanban to your team's work

1/ Agile Meets Design Thinking

Despite everyone's good intentions, hard work and solid ideas, too many teams end up creating products that no one wants, no one can use, and no one buys. But it doesn't have to be this way. Agile and design thinking offer a different--and effective--approach to product development, one that results in valuable solutions to meaningful problems. In this course, you'll learn how to determine what's valuable to a user early in the process--to frontload value--by focusing your team on testable narratives about the user and creating a strong shared perspective.

This course is supported by the Batten Institute at UVA's Darden School of Business. The Batten Institute's mission is to improve the world through entrepreneurship and innovation: www.batteninstitute.org.

2/ Hypothesis-Driven Development

To deliver agile outcomes, you have to do more than implement agile processes- you have to create focus around what matters to your user and constantly test your ideas. This is easier said than done, but most of today's high-functioning innovators have a strong culture of experimentation.

In this course, you'll learn how to identify the right questions at the right time, and pair them with the right methods to do just enough testing to make sure you minimize waste and maximize the outcomes you create with your user.

3/ Agile Analytics

Few capabilities focus agile like a strong analytics program. Such a program determines where a team should focus from one agile iteration (sprint) to the next. Successful analytics are rarely hard to understand and are often startling in their clarity. In this course, developed at the Darden School of Business at the University of Virginia, you'll learn how to build a strong analytics infrastructure for your team, integrating it with the core of your drive to value.

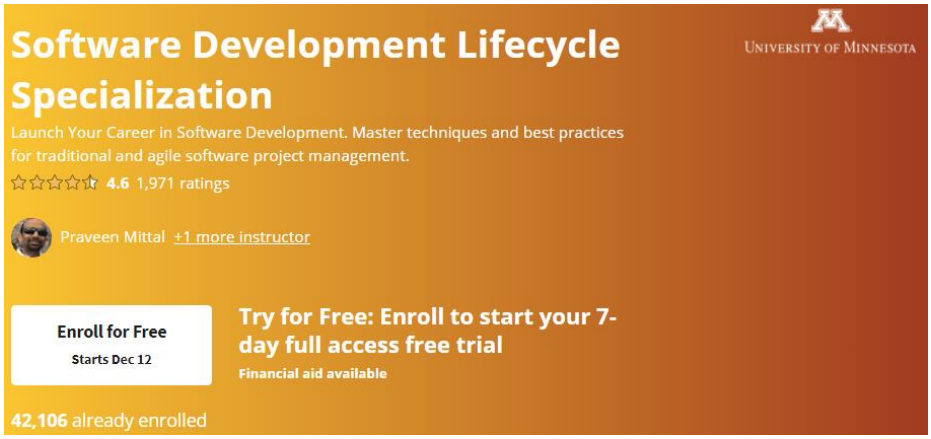
4/ Managing an Agile Team

While agile has become the de facto standard for managing digital innovation teams, many wonder if they're doing it 'right'. Twitter is full of jokes about how teams say they do agile but don't 'really' do it. The reality is that getting the most out of agile is less about observing specific procedures and more about how a team focuses and measures their progress.

Rather than just boring you with an accounting of agile methodologies, this course focuses on helping you better charter your team's focus, definition of success, and practice of agile. While learning about agile mainstays like Scrum, XP, and kanban, you'll also learn to help your team ask the right questions about how they're working and facilitate good answers on how agile can help.

Software Development Lifecycle Specialization (4 courses)- Uni of Minnesota (Intermediate)

https://www.coursera.org/specializations/software-development-lifecycle



- Critically analyze software engineering development processes from our four selected development philosophies (traditional, secure, agile, and lean)
- Describe the trade-offs among the philosophies with respect to environmental, organizational, and product constraints
- Discuss the workings of exemplary processes within each of the given philosophies
- Perform activities within each of the four afore,mentioned /əˈfɔrˌmɛnʃənd/ philosophies and explain how they satisfy the principles of the given philosophy

1/ Software Development Processes and Methodologies

Software is quickly becoming integral part of human life as we see more and more automation and technical advancements. Just like we expect car to work all the time and can't afford to break or reboot unexpectedly, software industry needs to continue to learn better way to build software if it were to become integral part of human life.

In this course, you will get an overview of

- how software teams work?
- What processes they use?
- What are some of the industry standard methodologies?
- What are pros and cons of each?

You will learn enough to have meaningful conversation around software development processes. After completing this course, a learner will be able to

1) Apply core software engineering practices at conceptual level for a given problem.

2) Compare and contrast traditional, agile, and lean development methodologies at high level. These include Waterfall, Rational Unified Process, V model, Incremental, Spiral models and overview of agile mindset

3) Propose a methodology best suited for a given situation

2/ Agile Software Development

Software industry is going crazy on agile methods. It is rapidly becoming the choice for software development where requirements are unpredictable or is expected to change over time.

This course will help you gain knowledge on

- what is agile?
- Why agile is better suited for these situations?

We will also cover some of the most common agile frameworks like scrum and XP in depth.

Prerequisite: You need basic knowledge of software development process and software development methodologies.

After completing this course, you will be able to:

1) Demonstrate the ability to participate effectively in agile practices/process for software development.

2) Explain the purpose behind common agile practices.

3) Ability to apply agile principles and values to a given situation.

4) Ability to identify and address most common problems encountered in adopting Agile methods.

Project: You will also be given opportunity to apply what you learn in this course. You will be given fictional case studies, where after studying the case study, you will have to exercise some of the practices, techniques, etc that team members of an agile team members are expected to know.

3/ Lean Software Development

While scrum and XP were transforming the software development industry, there were another set of ideas (derived from lean manufacturing and Six Sigma) that started to influence software development methods. These ideas around Lean Software Development forms the foundation of number of agile methods.

In this course, we will explore lean concepts and cover some of the common Lean methods and techniques like Kanban, Value Stream Mapping, etc.

In this course, we will also learn techniques like Lean Startup and Design Thinking that can help team learn about user and market needs much faster and cheaper. As part of this course, you will also apply the knowledge gained in this course to fictional case studies. These projects will help you gain experience to confidently apply these techniques in real world. At the end of the course, you will be able to apply lean techniques / methods to software development. You will also be able to apply methods to learn about your users and market needs much faster and cheaper.

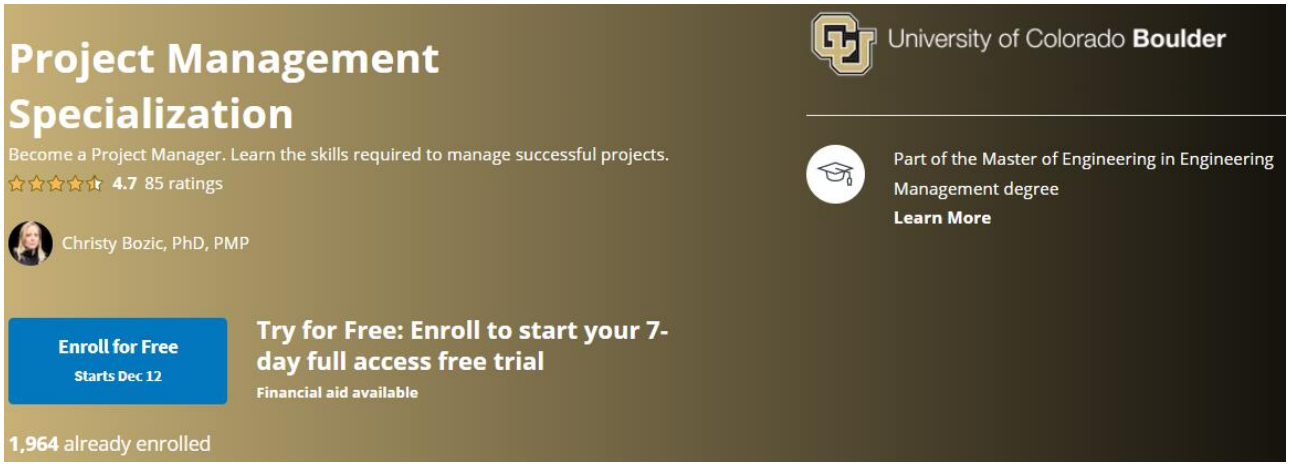
4/ Engineering Practices for Building Quality Software

Agile embraces change which means that team should be able to effectively make changes to the system as team learns about users and market. To be good at effectively making changes to the system, teams need to have engineering rigor and excellence else embracing change becomes very painful and expensive.

In this course, you will learn about engineering practices and processes that agile and traditional teams use to make sure the team is prepared for change. In additional, you will also learn about practices, techniques and processes that can help team build high quality software. You will also learn how to calculate a variety of quantitative metrics related to software quality. This is an intermediate course, intended for learners with a background in software development. To succeed in the course, you should have experience developing in modern programming languages (e.g., Java, C#, Python, JavaScript), an understanding of software development lifecycle models, familiarity with UML diagrams (class and sequence diagrams), and a desire to better understand quality aspects of software development beyond program correctness. At the end of this course, you will be able to comfortably and effectively participate in various techniques and processes for building secure and high quality software.

Project Management Specialization (3 courses) – Uni of Colorado Boulder

https://www.coursera.org/specializations/meem-project-management



- By completing this specialization, you will develop familiarity with the concepts, tools, and techniques used in project management.
- You will be able to describe the role of the project manager and the different phases of the project life cycle.
- You will also be able to distinguish different project management methodologies and determine which is best for a particular project.
- By successfully completing this course, you will be able to define the role of a project manager and describe different project management methods.

1/ Project Management: Foundations and Initiation

Project Management: Foundations and Initiation provides students the foundational knowledge of how engineering projects are managed and initiated. Project managers are responsible for project scope, stakeholder management, effective communication, and team leadership. In this course, you will develop

introductory skills needed to manage traditional engineering projects, along with tools needed to engage stakeholders and build diverse teams.

This course can be taken for academic credit as part of CU Boulder's Master of Engineering in Engineering Management (ME-EM) degree offered on the Coursera platform. The ME-EM is designed to help engineers, scientists, and technical professionals move into leadership and management roles in the engineering and technical sectors. With performance-based admissions and no application process, the ME-EM is ideal for individuals with a broad range of undergraduate education and/or professional experience. Learn more about the ME-EM program at https://www.coursera.org/degrees/me-engineering-management-boulder

2/ Project Planning and Execution

The goal of this second course of the Project Management specialization is to provide students with skills necessary to plan and execute traditional engineering projects. Project managers must plan and manage complex projects constrained by time and budget. As part of this course, you will determine project schedules, budgets, and risk assessments. At the end of this course, you will also be able to identify and explain various quality tools and methods used in project management.

3/ Agile Project Management

The goal of this third course in the Project Management Specialization examines the philosophy and process of managing projects using Agile project management. Students in this course will learn the Agile philosophy and process including the Scrum framework, sprints, and user stories. Upon completion of this course, you will be able to distinguish between predictive and agile project management methodologies and understand the benefits of delivering value early in an engineering project.

UCI Project Management Professional Certificate (4 courses)

https://www.coursera.org/professional-certificates/applied-project-management