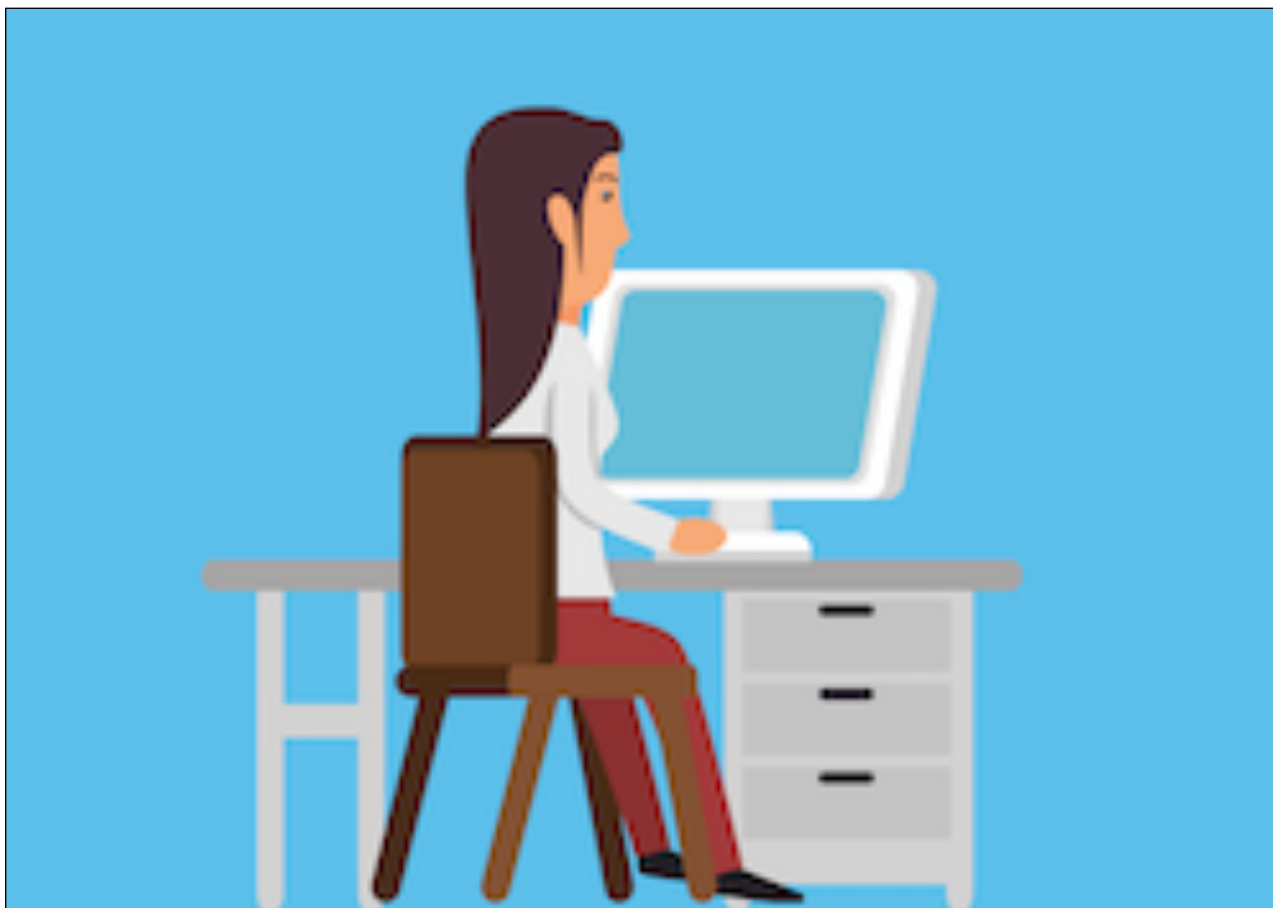# Online Software Courses

For High Paying Jobs in Software

Amit Patel - 6 February 2020

Affiliate Disclaimer : I want to disclose that the links to courses in this report will *earn me an affiliate commission* when you invest in any certification. The cost or quality of the course will not change for you in any respect. It is similar to when you buy a car. When you buy a car in your city, you are buying it from a local agent, who get's a commission on your purchase of that car. My goal with this report is to help you double your income potential by suggesting the best online courses available today. Most of my material is free to use, but to keep all the information I share with you free, *I need a steady stream of income*. So I find the best online courses for software engineer that are affordable and have the capability to give you an advantage to double your income or get promoted within a short time. Having said that, there are millions of online courses and platforms on the web that relate to learning the latest technology. I only promote those courses that I have investigated and truly feel deliver value to you. Please note that *I have not been given any free products, services or anything else by these companies* in exchange for mentioning them on the site. The only consideration is in the form of affiliate commissions. If you have any questions regarding the above, please do not hesitate to contact me by using the contact page on **My Youtube channel**.

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1. Introduction

Do you know that, salaries in software industry have remained stagnant for almost a decade now. The average salary of a software engineer has not increased in the last 10 years and in fact in some cases it has gone down for common technologies like .NET & Java because of a huge supply.

The idea here is to help you upgrade your skills so that your income can change. To put it correctly you will start earning a high salary in a short period of time.

> I have a vision where any software engineer can transform their life by investing in education from the worlds best online learning platform.

In this report I reveal a few courses based on my experience in the software industry combined with my research of several months.

Here you will find courses, specializations, certificates, masters and degrees that you can complete online from anywhere you want. You can do these part time along with your full time job.

The courses are designed so that you can complete within 4 to 6 weeks. But the specialisation will take time depending on the number of courses you have to complete for the specialisation.

Moreover, you can get a certificate and access to projects when you pay a small fee towards the course. This certificate is recognised by the software industry.

If you have the desire to find the highest paying job in the software industry and the initiative to upgrade your skills then read this complete report.

See what interests you.

1. First you identify the technology you like to invest your time and energy to learn.

2. Then you understand the course or specialisation mentioned in this report applicable to the technology you want to master.

3. Next to enrol for the course and decide whether you need the certification.

4. Finally work hard to complete the course and take the certification that will improve your salary.

Once you have your certificate in hand you have two choices.

The first choice is to talk to your company about the skills you have upgraded. See what opportunities and income they offer.

The second choice is to find another job in the software industry aligned with you upgraded skillset.

Make a decision based on what you want your future to look like. There is no right choice or the wrong choice.

Without further ado let us dive into finding the best path for your career.

2. Why we need this?

In the introduction I mentioned that the salaries have remained stagnant for software engineers. This is across the world.

A software engineer in India starts at an average salary of between Rs 3,00,000 to 3,25,000 per annum. In the United States of America engineers earn between $ 60,000 to $ 75,000 per annum.

In both the cases if you compare a standard appraisal of 10% for India and 5% for US then the salaries will grow like this.
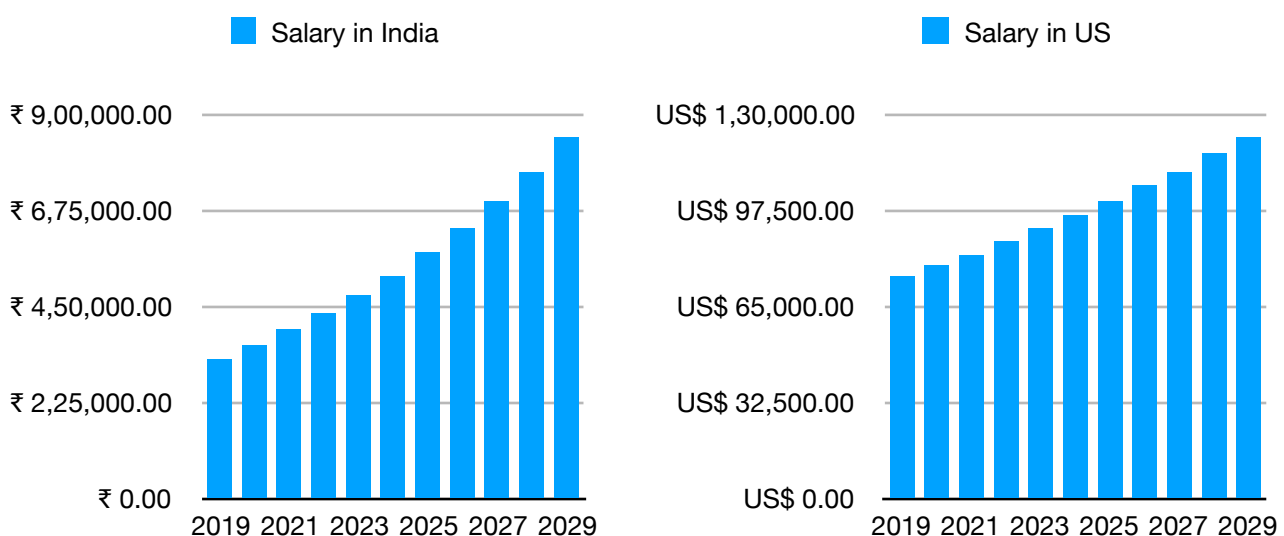
This is a hypothetical example. Sometimes appraisals will be good. Other times they will be bad. But in 10 years this is what will happen. Find out from software engineers who did not upgrade for 10 years what is their salary today. You will see a similar number.

Based on this data a software engineer in India who starts Rs 3,25,000 will have a salary of Rs 8,50,000 in 10 years. Whereas a software engineer in US who starts at $ 75,000 will have a salary around $ 122,000.

This will happen for all engineers who keep doing the same thing.

> **If you keep doing the same things then you will keep getting the same results. - By Einstien.**

In the past software engineers had to change their career path in order to get a better salary. After a few years software engineers would switch to project manager in order to get better income.

But today you can earn high even if you decide to remain a software engineer. You can remain technical and still have a chance of increasing your income.

This is possible by upgrading your skills to new age technologies. Technologies that are in demand. Most companies are ready to double or even triple your salary if you know these technologies. The only thing you have to do is to prove that you can work in these new age technology.

Just imagine!

If you can get the salary above Rs 10,00,000 in India or $ 150,000 in US by investing just a few weeks or few months of your time. While you are still working at your job.

How would you feel?

More over forget about your feeling. If you save Rs 50,000 per month every month for a period of 10 years do you know the amount you are going to save.

Calculation results | Graphs of results

(interest compounded **quarterly** - added at the end of each quarter)

Year	Year Deposits	Year Interest	Total Deposits	Total Interest	Balance
1	₹600,000.00	₹26,699.56	₹650,000.00	₹26,699.56	₹676,699.56
2	₹600,000.00	₹71,733.58	₹1,250,000.00	₹98,433.14	₹1,348,433.14
3	₹600,000.00	₹120,003.70	₹1,850,000.00	₹218,436.84	₹2,068,436.84
4	₹600,000.00	₹171,742.47	₹2,450,000.00	₹390,179.31	₹2,840,179.31
5	₹600,000.00	₹227,199.14	₹3,050,000.00	₹617,378.45	₹3,667,378.45
6	₹600,000.00	₹286,640.87	₹3,650,000.00	₹904,019.32	₹4,554,019.32
7	₹600,000.00	₹350,354.02	₹4,250,000.00	₹1,254,373.34	₹5,504,373.34
8	₹600,000.00	₹418,645.54	₹4,850,000.00	₹1,673,018.89	₹6,523,018.89
9	₹600,000.00	₹491,844.42	₹5,450,000.00	₹2,164,863.31	₹7,614,863.31
10	₹600,000.00	₹570,303.31	₹6,050,000.00	₹2,735,166.62	₹8,785,166.62

You can save this much money only if you have additional income. If your average salary is Rs 3,50,000 and you high paying salary is Rs 10,00,000 you can easily save the money from your salary right from the first year.

After that even if you don't make any other savings even than you will have a big bank balance.

Will you not feel proud and successful when you have enough money. Moreover, you will save 8 to 10 years of struggle. Avoid the disappointments that come in each appraisal cycle.

Your success in your hands. Read this report. Take action to learn a new technology. Start today and double or triple your income in no time.

3. Courses For: *Highest Paying Jobs*

The following are some courses in each stream of high paying jobs. You can click on the link to find out more about the course.

1. Full Stack Development

1.1. Full-Stack Web Development with React : View Syllabus

This course is offered by The Hong Kong University of Science and Technology. It has a rating of 4.7 with 4,670 ratings. So far 18,460+ students have already enrolled in this course.

Learn front-end and hybrid mobile development, with server-side support, for implementing a multi-platform solution.

The courses cover front-end frameworks: **Bootstrap 4** and **React**. You'll also learn to create hybrid mobile applications, using **React Native**. On the server side, you'll learn to implement NoSQL databases using **MongoDB**, work within a **Node.js** environment and **Express** framework, and communicate to the client side through a RESTful API. Prior working knowledge of HTML, CSS and JavaScript.

Check the complete syllabus of the Full-Stack Web Development with React

1.2. Web Application Development: Basic Concepts : <u>View Syllabus</u>

This course is offered by University of New Mexico. It has a rating of 4.6 with 138 ratings. So far 33,843+ students have already enrolled in this course.

This course will give you the basic background, terminology and fundamental concepts that you need to understand in order to build modern full stack web applications.

In this course we will learn the major components of web application architectures, along with the fundamental design patterns and philosophies that are used to organize them. You will build and continually refine a fully functional full-stack web application as we progress through the modules in this course.

Check the complete syllabus of the Web Application Development Basic Concepts

1.3.Web Applications for Everybody : <u>View Syllabus</u>

This course is offered by University of Michigan. It has a rating of 4.8 with 3,842 ratings. So far 25,122+ students have already enrolled in this course.

This is an introduction to building web applications for anybody who already has a basic understanding of responsive web design with JavaScript, HTML, and CSS. You will develop web and database applications in PHP, using SQL for database creation, as well as functionality in JavaScript, jQuery, and JSON.

Over the course you will create several web apps to add to your developer portfolio. This will prepare you, even if you have little to no experience in programming or technology, for entry level web developer jobs in PHP.

Check the complete syllabus for Web Application for Everybody

1.4.Python 3 Basics : <u>View Syllabus</u>

This course is offered by University of Michigan. It has a rating of 4.8 with 3,159 ratings. So far 61,096+ students have already enrolled in this course.

The course is for you if you're a newcomer to Python programming, if you need a refresher on Python basics, or if you may have had some exposure to Python programming but want a more in-depth exposition and vocabulary for describing and reasoning about programs.

Check of the complete syllabus of the Python Basics course here.

1.5.Python for Everybody Specialization : <u>View Syllabus</u>

This course is offered by University of Michigan. It has a rating of 4.8 with 164,938 ratings. So far 318,339+ students have already enrolled in this course.

This course builds on the success of the Python for Everybody course and will introduce fundamental programming concepts including data structures, networked application program interfaces, and databases, using the Python programming language. In the Capstone Project, you'll use the technologies learned throughout to design and create your own applications for data retrieval, processing, and visualization.

Check the complete syllabus of Python for Everybody Specialization here

1.6.Python 3 Programming Advanced : <u>View Syllabus</u>

This course is offered by University of Michigan. It has a rating of 4.6 with 6,935 ratings. So far 26,595+ students have already enrolled in this course.

This course teaches the fundamentals of programming in Python 3. We will begin at the beginning, with variables, conditionals, and loops, and get to some intermediate material like keyword parameters, list comprehensions, lambda expressions, and class inheritance.

This course is a good next step for you if you have completed *Python for Everybody* but want a more in-depth treatment of Python fundamentals and more practice, so that you can proceed with confidence to specializations like *Applied Data Science with Python*.

<u>Check the complete syllabus for Python 3 Programming Specialization here</u>

1.7.Object Oriented Programming in Java : <u>View Syllabus</u>

This course is offered by Duke University : University of California San Diego. It has a rating of 4.7 with 10,427 ratings. So far 17,580+ students have already enrolled in this course.

This course is for aspiring software developers with some programming experience in at least one other programming language (e.g., Python, C, JavaScript, etc.) who want to be able to solve more complex problems through objected-oriented design with Java. In addition to learning Java, you will gain experience with two Java development environments (BlueJ and Eclipse), learn how to program with graphical user interfaces, and learn how to design programs capable of managing large amounts of data. These software engineering skills are broadly applicable across wide array of industries.

<u>Check the complete syllabus for Object Oriented Programming with Java</u>

1.8. Java Programming and Software Engineering Fundamentals : <u>View Syllabus</u>

This course is offered by Duke University. It has a rating of 4.6 with 12,476 ratings. So far 74,984+ students have already enrolled in this course.

Take your first step towards a career in software development with this introduction to Java—one of the most in-demand programming languages and the

foundation of the Android operating system. Designed for beginners, this Specialization will teach you core programming concepts and equip you to write programs to solve complex problems. In addition, you will gain the foundational skills a software engineer needs to solve real-world problems, from designing algorithms to testing and debugging your programs.

Check the complete syllabus for Java Programming and Software Engineering Fundamentals

1.9.Become a Full Stack .NET Developer (Beginner) : <u>View Syllabus</u>

This course is offered by Pluralsight. The author is Mosh Hamedani. It has a rating of 5 with 1,147 ratings.

Become a Full Stack .NET Developer Beginner course is for professionals and experienced developers who want to build an application from A to Z. This course will show you how you can build a real world mini social networking application with ASP.NET MVC5 and Entity Framework.

Check the complete syllabus for Become a Full Stack .NET Developer Beginner here

1.10.Become a Full Stack .NET Developer (Advanced) : <u>View Syllabus</u>

This course is offered by Pluralsight. The author is Mosh Hamedani. It has a rating of 5 with 504 ratings.

Become a Full Stack .NET Developer Advanced Topics course is for professionals and experienced developers who want to improve front end and back end skills as .NET Developer. This is Part 2 of the Become a Full Stack .NET Developer where we will cover topics like CRUD Operations, Object-Oriented Design, and More.

Check the complete syllabus for Become a Full Stack .NET Developer Advanced here

1.11. Web Development in Python with Django Framwork: <u>View Syllabus</u>

This course is offered by Addision Wesely Professional. The author is Andrew Pinkham. This has 9+ hours of Video Instructions.

This course gets you up and running with the Django framework. Learn how to start Django projects, organize code, structure data and define the behavior with Django models.

Leverage Python and the Django web framework to develop applications quickly and securely.

<u>Check the complete syllabus for Web Development in Python with Django Framework.</u>

1.12. Ruby on Rails Web Development: <u>View Syllabus</u>

This course is offered by John Hopkins University. It has a rating of 4.7 with 9,824 ratings. So far 38,883+ students have already enrolled in this course.

This Specialization covers the fundamentals of web development with Ruby on Rails. You'll learn everything you need to develop your own web application using Ruby on Rails, SQL and NoSQL databases, and HTML/CSS, and Javascript with RESTful architecture.

<u>Check the complete syllabus for Ruby on Rails Web Development.</u>

2. Application Programming Interface

2.1. Software Design and Architecture : <u>View Syllabus</u>

This course is offered by University of Alberta. It has a rating of 4.6 with 1,898 ratings. So far 14,640+ students have already enrolled in this course.

In the Software Design and Architecture course you will learn how to apply design principles, patterns, and architectures to create reusable and flexible software applications and systems. You will learn how to express and document the design and architecture of a software system using a visual notation.

<u>Check the complete syllabus for Software Design and Architecture</u>

2.2.Developing APIs with Google Cloud's Apigee API Platform : <u>View Syllabus</u>

This course is offered by Google Cloud Team. It has a rating of 4.6 with 2,559 ratings. So far 9,524+ students have already enrolled in this course.

This course will introduce you to the many out of box capabilities of the Google Cloud Platform (Apigee) and how to apply them to your APIs to properly implement and secure them. Through a combination of video lectures, hands on labs, and supplemental materials, you'll learn how to design, build, and deploy your API solution using services on the Google Apigee Platform.

<u>Check the complete syllabus of the Developing APIs with Google Clouds APIGEE API Platform</u>

2.3.Service-Oriented Architecture : <u>View Syllabus</u>

This course is offered by University of Alberta. It has a rating of 4.5 with 239 ratings. So far 13,391+ students have already enrolled in this course.

Based on an understanding of architectural styles, you will review architectures for web applications, then explore the basics of Service-Oriented Architecture (SOA) in two approaches: Web Services (WS*) and Representational State Transfer (REST) architecture.

After completing this course, you will be able to: Describe SOA (Service-Oriented Architecture) to structure web-based systems. Explain WS* services (i.e., SOAP over HTTP, WSDL, UDDI, BPEL). Apply REST architecture (i.e., JSON over HTTP, URI). Identify REST design principles. Create a system using REST interfaces. Apply microservice architecture.

<u>Check the complete syllabus of Service Oriented Architecture</u>

2.4.API Development in ASP.NET Core : <u>View Syllabus</u>

This course is offered by Pluralsight. The authors are Shawn Wildermuth, Kevin Dockx, Roland Guijt.

This path will help you learn about all of the choices, from REST to GraphQL and how to implement each one. You will learn REST principles. Designing and Building asynchronous APIs. Building RESTFul APIs using ASP.NET Core. Documenting APIs with OpenAPI/Swagger. APIs are at the heart of todays

connected applications. ASP.NET Core offers a multitude of choices for developing APIs. This path will help you learn everything about designing and development of APIs.

Check the complete syllabus of API Development in ASP.NET Core.

2.5. AWS Fundamentals: Building Serverless Applications : View Syllabus

This course is offered by Amazon Web Services Team. It has a rating of 4.7 with 354 ratings. So far 17,440+ students have already enrolled in this course.

This course will introduce you to Amazon Web Services (AWS) serverless architecture. Through demonstrations and hands-on exercises you will learn skills in building and deploying serverless solutions.

Using real-world examples of a serverless website and chat bot, you'll build upon your existing knowledge of the AWS cloud to take advantage of the benefits of modern architectures for greater agility, innovation, and lower total cost of ownership across a range of AWS services, including AWS Lambda, Amazon API Gateway, Amazon DynamoDB, and Amazon Lex.

Check the complete syllabus of AWS Fundamentals : Building Serverless Applications

2.6. RESTful Web APIs with Spring : View Syllabus

This course is offered by Addision Wesely Professional. The author is Josh Long. This has 4+ hours of Video Instructions.

REST has enabled people to build mobile applications that capture our imagination, entertain us, and help us. REST has ushered in a generation of incredibly sophisticated, HTML5-powered browser applications. REST has also made it easier for organizations to adopt a service-oriented architecture with less friction.

REST's flexibility, however, can also be its greatest weakness: as often as not there is no clear guidance on where to go and how to get there. What does it mean to deploy a REST service? How do you handle errors in a REST service? What's the easiest way to write a REST service?

Spring Developer Advocate Josh Long discusses and demonstrates strategies for securing REST API access along with handling errors and versioning. These

LiveLessons also cover how hypermedia and HATEOAS help you to deliver developer and consume friendly web services.

Check the complete syllabus of RESTful Web APIs with Spring

2.7.Rethinking REST: A hands-on guide to GraphQL and Queryable APIs : <u>View Syllabus</u>

This course is offered by Addision Wesely Professional. The author is Arianne Dee. This has 4+ hours of Video Instructions.

GraphQL improves upon REST APIs by providing an explorable and self-documented way of getting exactly the data you need for your application. Whether you're working on a mobile app or a dashboard view, no matter how small or large the project, GraphQL is an important new tool for any application developer to know.

The lessons start with a high-level introduction to the language, its features, and best practices for creating a production-ready API. In the latter part, the lessons provide guided tutorials for creating a GitHub dashboard using their existing API and building your own GraphQL API from scratch using either the Node.js or Django frameworks.

Check the complete syllabus of Rethinking REST: A hands-on guide to GraphQL and Queryable APIs.

3. Business Process Management

3.1.Business Process Management in Healthcare Organizations : <u>View Syllabus</u>

This course is offered by Rutgers the State University of New Jersey. It has a rating of 4.5 with 19 ratings.

Course content includes an overview of healthcare organization business processes including business process management approaches as well as a discussion of healthcare organization entrepreneurship as a business process. The course provides links to external sites to connect you to the larger "real world" of healthcare organization business processes, business process management, and entrepreneurship. The links also serve as resources you can take with you after you

complete the course experience. And because everyone loves a road trip/field trip, there are also "virtual field trips" to the often hidden places of interest on the web.

Check the complete Syllabus of Business Process Management in Healthcare Organizations

3.2.Business Analysis - CBAP : View Syllabus

This course is offered by Pluralsight. The authors are Jamie Champagne, Casey Ayers, Milena Pajic.

This skill is based on the IIBA BABOK Guide 4th Edition and Covers all IIBA CBAP Certification Objectives. This skill will also help you qualify for the CBAP certification exam by fulfilling the required 35 hours of professional development. In this course you will learn, Business analysis planning and monitoring. Strategy Analysis. Elicitation and Collaboration. Requirement analysis and design definition. Requirements life cycle management. Solution evaluation.

The following are the pre-requisites of the course. CBAP Certification Requirements - Complete a minimum of 7,500 hours of Business Analysis Work Experience in the last 10 years. - Within this experience, a minimum of 900 hours completed in 4 of the 6 BABOK® Guide Knowledge Areas, for a total of at least 3,600 of the required 7,500 total. - Complete a minimum of 35 hours of Professional Development in the last 4 years

Check the complete syllabus of Business Analysis - CBAP

3.3.Leadership and Management for Project Managers : View Syllabus

This course is offered by Pluralsight. The authors are Jason Alba, Heather Ackmann, Alice Meredith, Dan Appleman, Doru Catana, Amy Irvine, Lars Klint, Milena Pajic, Shelley Benhoff, Dragana Hadzic, Casey Ayers.

Successful project managers in today's organizations are also effective leaders. They get the project work done by leading and managing project team members efficiently and effectively. This skill covers areas of leadership and management required for effective management of project teams. These include: problem solving, decision making, team building, collaboration, organization, time management, influence, and work ethics.

Check the complete syllabus of Leadership and Management for Project Managers

3.4.Business Process Management: Profiting From Process (e-Book) : <u>View Syllabus</u>

This is a ebook by SAMS publishing and authored by Roger Burlton.

The Process Management Framework provides the strategic guidance and tactical steps to make the switch. Encompassing eight phases, the Framework migrates organizational and process transformation through strategy, design, realization, and actual operations. For each phase, this book provides detailed descriptions of the steps, their inputs, outputs, guides, and enablers, as well as the tricks, traps, and best practices learned by experienced practitioners. It also covers the related disciplines of managing programs, risk, quality, projects, and human change, and how process management is the key to ensure a fit among all these areas. For those of you about to embark on a process journey, this book provides a compelling call to action, a guide for management, and an invaluable reference.

<u>Check the complete Syllabus of Business Process Management: Profiting from Process (e-Book)</u>

4. Cybersecurity

4.1.Introduction to Cyber Security : <u>View Syllabus</u>

This course is offered by New York University Tandon School of Engineering. It has a rating of 4.7 with 1,825 ratings. So far 10,623+ students have already enrolled in this course.

Introduction to Cyber Security was designed to help learners develop a deeper understanding of modern information and system protection technology and methods. The learning outcome is simple: We hope learners will develop a lifelong passion and appreciation for cyber security, which we are certain will help in future endeavours. Students, developers, managers, engineers, and even private citizens will benefit from this learning experience. Special customised interviews with industry partners were included to help connect the cyber security concepts to live business experiences.

<u>Check the complete syllabus on Introduction to Cyber Security</u>

4.2.Cybersecurity : <u>View Syllabus</u>

This course is offered by University of Maryland. It has a rating of 4.4 with 3,990 ratings. So far 27,968+ students have already enrolled in this course.

The Cybersecurity course covers the fundamental concepts underlying the construction of secure systems, from the hardware to the software to the human-computer interface, with the use of cryptography to secure interactions. These concepts are illustrated with examples drawn from modern practice, and augmented with hands-on exercises involving relevant tools and techniques. Successful participants will develop a way of thinking that is security-oriented, better understanding how to think about adversaries and how to build systems that defend against them.

<u>Check the complete syllabus of Cybersecurity</u>

4.3.Security Fundamentals : <u>View Syllabus</u>

This course is offered by Pluralsight. The author is Christopher Rees.

This course will help you to expand your knowledge about threats, attacks, and vulnerabilities. You will learn about security technologies and tools. Also, security architecture and design, identity and access management, risk management and cryptography.

This course does not require any prior knowledge or experience. It progresses from beginner levels to intermediate and advanced level course.

<u>Check the complete syllabus of Security Fundamentals</u>

4.4. Security Engineering : <u>View Syllabus</u>

This course is offered by Pluralsight. The author is Kevin Henry.

Security Engineering addresses the problem of inadequate and incomplete security solutions. The configuration of an integrated and resilient security framework is the goal of this course on Security Engineering. In this course, Security Engineering, you will learn the use of security models and gain the ability to develop and deploy a robust security solution tailored for your organization. First, you will learn about the traditional security approaches. Next, you will discover security challenges with modern technology. Finally, you will explore how to manage and operate a security program. When you're finished with this course, you will have the skills

and knowledge of security engineering needed to design and deploy an enterprise-wide security solution.

Check the complete syllabus of Security Engineering

4.5. CompTIA A+ Core 1 (220-1001) and Core 2 (220-1002) Library : **View Syllabus**

This course is offered by Pearson IT Certification. The Author is David. L. Prowse

CompTIA A+ Core 1 (220-1001) Complete Video Course and CompTIA A+ Core 2 (220-1002) Complete Video Course provides full coverage of all objectives in the CompTIA A+ exam so you have everything you need to get certified.CompTIA A+ Core 1 (220-1001) Complete Video Course and CompTIA A+ Core 2 (220-1002) Complete Video Course is a unique video product that provides a solid understanding of A+ skills. The purpose of these videos is to act as quick, concise, hands-on training that is easily absorbed. In this best-selling author and instructor-led course you will get coverage of every objective and topic in the CompTIA A+ Core 1 (220-1001) and the CompTIA A+ Core 2 (220-1002) exams. It is also full of hands-on demos so you can see real hardware and software presentations. David Prowse walks you through the details you need to not only pass the test, but troubleshoot and fix real hardware, software, and network problems for your career. The author also includes Tech Tips throughout to give you insider info on troubleshooting, repair, and maintenance.

Check the complete Syllabus of CompTIA A+ Core 1 (220 - 1001) and Core 2 (220 - 1002) Library

5. Legacy Modernisation

5.1. Software Product Management : **View Syllabus**

This course is offered by University of Alberta. It has a rating of 4.7 with 13,055 ratings. So far 26,685+ students have already enrolled in this course.

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

Check the complete syllabus of Software Product Management

5.2.Software Development Lifecycle : <u>View Syllabus</u>

This course is offered by University of Minnesota. It has a rating of 4.1 with 746 ratings. So far 6,711+ students have already enrolled in this course.

This course is designed for people who are new to software engineering. It's also for those who have already developed software, but wish to gain a deeper understanding of the underlying context and theory of software development practices.

At the end of this course, we expect learners to be able to:

1.) Build high-quality and secure software using SDLC methodologies such as agile, lean, and traditional/waterfall.

2.) Analyse a software development team's SDLC methodology and make recommendations for improvements.

3.) Compare and contrast software development methodologies with respect to environmental, organisational, and product constraints.

Check the complete syllabus of Software Development Lifecycle

5.3.Domain-Driven Design: Working with Legacy Projects : <u>View Syllabus</u>

This course is offered by Pluralsight. The author is Vladimir Khorikov.

As a programmer, you'd love to only work on green-field projects. However, you are most likely working on a legacy project right now, or will be at some point in the future. In this course, Domain-Driven Design: Working with Legacy Projects, you'll develop skills that will help you manage these legacy projects to deliver new functionality and keep the stakeholders happy. First, you'll learn how to make your way through the legacy code base by refactoring it one step at a time. Next, you'll explore how to handle rewrites, when to do that, and when it is better to keep the existing legacy code base instead. Finally, you'll discover techniques such as building an Anticorruption Layer, the Strangler pattern, and Branch by Abstraction pattern to deal with these code bases. By the end of this course, you'll have a solid

understanding of the theory and practice of improving the functionality and scalability of legacy projects.

Check the complete syllabus of Domain-Driven Design: Working with Legacy Projects

5.4. Modernizing Legacy Systems: Software Technologies, Engineering Processes, and Business Practices (Print Book): View Syllabus

This is a print book published by Addison Wesley Professionals. The Authors are Robert C. Seacord, Daniel Plakosh, Grace A. Lewis.

Businesses inevitably face a critical choice in the design and maintenance of their software systems: Dismantle older systems and completely replace them, or incrementally modernize existing systems. Many businesses choose the latter course, seeking to maximize their existing investment and preserve valuable business knowledge, while adapting to rapidly evolving technologies. Modernizing Legacy Systems is a much-needed guide, showing how to implement a successful modernization strategy and describing specifically a risk-managed, incremental approach--one that encompasses changes in software technologies, engineering processes, and business practices.

For every topic, this book presents current standards and available products that support legacy system modernization. In addition, a large retail-supply-system case study--a system written in COBOL being modernized to one based on the J2EE architecture--runs throughout this book to demonstrate a real-world legacy system modernization effort.

Check the complete syllabus of Modernizing Legacy Systems: Software Technologies, Engineering Processes, and Business Practices (Print Book)

6. Enterprise Cloud

6.1.Architecting with Google Compute Engine : <u>View Syllabus</u>

This course is offered by Google Cloud Team. So far 18,291+ students have already enrolled in this course.

This specialization introduces learners to the comprehensive and flexible infrastructure and platform services provided by Google Cloud Platform, with a focus on Compute Engine. Through a combination of presentations, demos, and hands-on labs, participants explore and deploy solution elements, including infrastructure components such as networks, systems and applications services. This course also covers deploying practical solutions including securely interconnecting networks, customer-supplied encryption keys, security and access management, quotas and billing, and resource monitoring.

This class is intended for Cloud Solutions Architects, DevOps Engineers or individuals using Compute Engine.

Check the complete syllabus of Architecting with Google Compute Engine

6.2.Cloud Computing : <u>View Syllabus</u>

This course is offered by University of Illinois. It has a rating of 4.3 with 2,099 ratings. So far 24,874+ students have already enrolled in this course.

The Cloud Computing courses takes you on a tour through cloud computing systems. We start in in the middle layer with Cloud Computing Concepts covering core distributed systems concepts used inside clouds, move to the upper layer of Cloud Applications and finally to the lower layer of Cloud Networking. We conclude with a project that allows you to apply the skills you've learned throughout the courses.

In the programming assignments, implement some of these concepts in template code (programs) provided in the C++ programming language. Prior experience with C++ is required.

Check the complete syllabus of Cloud Computing

6.3.Developing Applications with Google Cloud Platform : <u>View Syllabus</u>

This course is offered by Google Cloud Team. It has a rating of 4.6 with 27,282 ratings. So far 27,551+ students have already enrolled in this course.

In this course, application developers learn how to design, develop, and deploy applications that seamlessly integrate managed services from the Google Cloud Platform (GCP). Through a combination of presentations, demos, and hands-on labs, participants learn how to use GCP services and pre-trained machine learning APIs to build secure, scalable, and intelligent cloud-native applications. Learners can choose to complete labs in their favourite language: Node.js, Java, or Python.

<u>Check the complete syllabus of Developing Applications with Google Could Platform</u>

6.4.AWS Fundamentals: Going Cloud-Native : <u>View Syllabus</u>

This course is offered by Amazon Web Services Team. It has a rating of 4.7 with 2,297 ratings. So far 72,783+ students have already enrolled in this course.

This course will introduce you to Amazon Web Services (AWS) core services and infrastructure. Through demonstrations you'll learn how to use and configure AWS services to deploy and host a cloud-native application.

Early in the course, your AWS instructors will discuss how the AWS cloud infrastructure is built, walk you through Amazon Elastic Compute Cloud (Amazon EC2) and Amazon Lightsail compute services. They'll also introduce you to networking on AWS, including how to set up Amazon Virtual Public Cloud (VPC) and different cloud storage options, including Amazon Elastic Block Storage (EBS), Amazon Simple Storage Service (S3) and Amazon Elastic File Service (EFS). Later in the course you'll learn about AWS Database services, such as Amazon Relational Database Service (RDS) and Amazon DynomoDB. Your instructors will also walk you through how to monitor and scale you application on AWS using Amazon CloudWatch and Amazon EC2 Elastic Load Balancing (ELB) and Auto Scaling. Lastly, you'll learn about security on AWS, as well as how to manage costs when using the AWS cloud platform.

This course has been developed by AWS, and is delivered by AWS technical instructors who teach cloud computing courses around the globe.

Check the complete syllabus of AWS Fundamentals : Going Cloud-Native

6.5.AWS Fundamentals: Building Serverless Applications : View Syllabus

This course is offered by Amazon Web Services Team. It has a rating of 4.7 with 354 ratings. So far 17,440+ students have already enrolled in this course.

This course will introduce you to Amazon Web Services (AWS) serverless architecture. Through demonstrations and hands-on exercises you'll learn skills in building and deploying serverless solutions.

Using real-world examples of a serverless website and chat bot, you'll build upon your existing knowledge of the AWS cloud to take advantage of the benefits of modern architectures for greater agility, innovation, and lower total cost of ownership across a range of AWS services, including AWS Lambda, Amazon API Gateway, Amazon DynamoDB, and Amazon Lex.

This course has been developed by AWS, and is delivered by AWS technical instructors who teach cloud computing courses around the globe.

Check the complete Syllabus for AWS Fundamentals : Building Serverless Application

6.6.AWS Fundamentals: Migrating to the Cloud : View Syllabus

This course is offered by Amazon Web Services Team. It has a rating of 4.7 with 59 ratings. So far 7,379+ students have already enrolled in this course.

This four week course focuses on migrating workloads to AWS. We will focus on analyzing your current environment, planning your migration, AWS services that are commonly used during your migration, and the actual migration steps.

Check the complete syllabus of AWS Fundamentals : Migrating to the Cloud

6.7. .NET Developer on Microsoft Azure : View Syllabus

This course is offered by Pluralsight. The author is Scott Allen.

This course is for developers and architects who need to come up to speed quickly on Microsoft Azure. In this path, you will learn how to plan, build and deploy applications and APIs into Microsoft Azure. You will learn how to automate the

cloud to achieve continuous deployment and focus on the features of Azure that allow us to build scalable, resilient systems that can recover from disasters. From App Services and software containers to Redis Cache and Service Fabric, these courses will give you the fundamental knowledge you need to start working confidently on Microsoft Azure. You need to have an understanding of C#, ASP.NET and Visual Studio, as well as web development experience with HTML and CSS.

Check the complete syllabus for .NET Developer on Microsoft Azure

6.8.Google: Professional Cloud Data Engineer : <u>View Syllabus</u>

This course is offered by Pluralsight. The authors are Janani Ravi, Vitthal Srinivasan.

This skill path covers all the objectives needed to be a Data Engineer on Google Cloud. You will learn in depth how to use the products and services as well as how to complete the most common tasks with your Data in GCP. Although this path aligns with the topics for the GCP Cloud Data Engineer Professional exam. It is not a cert exam prep course. This is a path to teach the practical on the job skills for Data on GCP.

Check the complete syllabus for Google: Professional Cloud Data Engineer

6.9.Cloud Computing with Amazon Web Services : <u>View Syllabus</u>

This course is offered by Addision Wesely Professional. The author are Bernard Golden, Jorge Noa..

Get started using Amazon Web Services (AWS) right away! AWS provides system and storage resources very differently than traditional data center practices. Using the practices by which Amazon compute resources are provisioned, configured, and managed requires learning new skills. Cloud computing expert Bernard Golden guides you through a fast-paced introduction to cloud-based system. Viewers will learn about the three key aspects of AWS: Creating, launching, and shutting down EC2 instances; storage and persistence in AWS environments; and managing AWS-based instances as well as applications in AWS environments. Bernard Golden is CEO of HyperStratus, a Silicon Valley cloud consulting firm that helps its clients plan, design, and implement cloud computing. He is also the Cloud

Computing Advisor for CIO Magazine, which publishes his highly popular blog examining the benefits and challenges of cloud computing. Golden is a popular speaker and appears at many cloud computing conferences. This is a Sneak Peek preview version of the Cloud Computing with Amazon Web Services Video. Segments will be made available as they are completed.

Check the complete syllabus for Cloud Computing with Amazon Web Services

6.10.Building Cloud Services with the Java Spring Framework : View Syllabus

This course is offered by Vanderbilt University. It has a rating of 4.5 with 58 ratings. So far 8,272+ students have already enrolled in this course.

This MOOC describes by example how to build cloud services via the use of object-oriented design techniques; Java programming language features; Java Servlets, the Java Spring Framework; and cloud computing platforms, such as Amazon Web Services. Due to the importance of building secure and scalable mobile/cloud platforms, this MOOC will not only show you how to build cloud services, but how to do so securely, scalably, and efficiently. Security and scalability topics will be woven into discussions of cloud service creation so that students learn, from the start, how to create robust cloud services.

Check the complete syllabus for Building Cloud Services with Java Spring Framework

7. Big Data and Data Science

7.1.Big Data Specialization : View Syllabus

This course is offered by University of California San Diego. It has a rating of 4.4 with 12,493 ratings. So far 55,462+ students have already enrolled in this course.

Do you need to understand big data and how it will impact your business? This Specialization is for you. You will gain an understanding of what insights big data can provide through hands-on experience with the tools and systems used by big data scientists and engineers. Previous programming experience is not required! You will be guided through the basics of using Hadoop with MapReduce, Spark, Pig and Hive. By following along with provided code, you will experience how one can perform predictive modeling and leverage graph analytics to model problems.

This specialization will prepare you to ask the right questions about data, communicate effectively with data scientists, and do basic exploration of large, complex datasets. In the final Capstone Project, developed in partnership with data software company Splunk, you'll apply the skills you learned to do basic analyses of big data.

Check the complete syllabus of Big Data Specialization

7.2. Data Engineering, Big Data, and Machine Learning : View Syllabus

This course is offered by Google Cloud Team. So far 4,617+ students have already enrolled in this course.

This online specialization provides participants a hands-on introduction to designing and building data pipelines on Google Cloud Platform. Through a combination of presentations, demos, and hand-on labs, participants will learn how to design data processing systems, build end-to-end data pipelines, analyze data and derive insights. The course covers structured, unstructured, and streaming data.

This course teaches the following skills: Design and build data pipelines on Google Cloud Platform. Lift and shift your existing Hadoop workloads to the Cloud using Cloud Dataproc. Process batch and streaming data by implementing autoscaling data pipelines on Cloud Dataflow. Manage your data Pipelines with Data Fusion and Cloud Composer. Derive business insights from extremely large datasets using Google BigQuery. Learn how to use pre-built ML APIs on unstructured data and build different kinds of ML models using BigQuery ML. Enable instant insights from streaming data

This class is intended for developers who are responsible for: Extracting, Loading, Transforming, cleaning, and validating data. Designing pipelines and architectures for data processing. Integrating analytics and machine learning capabilities into data pipelines. Querying datasets, visualizing query results and creating reports

Check the complete syllabus of Data Engineering, Big Data, and Machine Learning

7.3. Modern Big Data Analysis with SQL : View Syllabus

This course is offered by Cloudera. It has a rating of 4.8 with 363 ratings. So far 3,311+ students have already enrolled in this course.

This Specialization teaches the essential skills for working with large-scale data using SQL.

Maybe you are new to SQL and you want to learn the basics. Or maybe you already have some experience using SQL to query smaller-scale data with relational databases. Either way, if you are interested in gaining the skills necessary to query big data with modern distributed SQL engines, this Specialization is for you.

Most courses that teach SQL focus on traditional relational databases, but today, more and more of the data that's being generated is too big to be stored there, and it's growing too quickly to be efficiently stored in commercial data warehouses. Instead, it's increasingly stored in distributed clusters and cloud storage. These data stores are cost-efficient and infinitely scalable.

To query these huge datasets in clusters and cloud storage, you need a newer breed of SQL engine: distributed query engines, like Hive, Impala, Presto, and Drill. These are open source SQL engines capable of querying enormous datasets. This Specialization focuses on Hive and Impala, the most widely deployed of these query engines.

Check the complete syllabus of Modern Big Data Analysis with SQL

7.4.The Data Scientist's Toolbox <u>View Syllabus</u>

This course is offered by Johns Hopkins University. It has a rating of 4.6 with 22,185 ratings. So far 368,063+ students have already enrolled in this course.

In this course you will get an introduction to the main tools and ideas in the data scientist's toolbox. The course gives an overview of the data, questions, and tools that data analysts and data scientists work with. There are two components to this course. The first is a conceptual introduction to the ideas behind turning data into actionable knowledge. The second is a practical introduction to the tools that will be used in the program like version control, markdown, git, GitHub, R, and RStudio.

Check the complete syllabus of The Data Scientist's Tool Box course here

7.5.Introduction to Data Science <u>View Syllabus</u>

This course is offered by IBM. It has a rating of 4.6 with 60,637 ratings. So far 25,105+ students have already enrolled in this course.

In this Specialization learners will develop foundational Data Science skills to prepare them for a career or further learning that involves more advanced topics in Data Science. The specialization entails understanding what is Data Science and the various kinds of activities that a Data Scientist performs. It will familiarize learners with various open source tools, like Jupyter notebooks, used by Data Scientists. It will teach you about methodology involved in tackling data science problems. The specialization also provides knowledge of relational database concepts and the use of SQL to query databases. Learners will complete hands-on labs and projects to apply their newly acquired skills and knowledge.

Upon receiving the certificate for completion of the specialization, you will also receive an IBM Badge as a **Specialist** in **Data Science Foundations**.

Check the complete syllabus for Introduction to Data Science Specialization here

7.6.AWS Big Data : <u>View Syllabus</u>

This course is offered by Pluralsight. The authors are Andrew Brust, Kim Schmidt, Reza Salehi, Ivan Mushketyk, Russ Thomas, Jordan Yankovich, Andru Estes, Matthew Alexander.

Processing big data jobs is a common use of cloud resources mainly because of the sheer computing power needed. AWS has created several services that enable you to use big data effectively for your projects. This path will teach you the basics of big data on AWS

You will learn the following : AWS Athena, S3 Storage, DynamoDB, Redshift Data Warehouse, Kinesis, and Elasticsearch

Check the complete syllabus for AWS Big Data

7.7.Google: Professional Cloud Data Engineer : <u>View Syllabus</u>

This course is offered by Pluralsight. The authors are Janani Ravi, Vitthal Srinivasan.

This skill path covers all the objectives needed to be a Data Engineer on Google Cloud. You will learn in depth how to use the products and services as well as how to complete the most common tasks with your Data in GCP. Although this path aligns with the topics for the GCP Cloud Data Engineer Professional exam. It is not

a cert exam prep course. This is a path to teach the practical on the job skills for Data on GCP.

What you will learn : Dataproc, Dataflow and Apache Bean, GCP Pub/Sub, BigQuery, GCP Cloud SQL, GCP Cloud Spanner, Cloud Datastore, Frestore, BigTable, Datalab, ML Engine, Machine Learning APIs, and Data Architecture on GCP

Check the complete syllabus for Google: Professional Cloud Data Engineer

8. DevOps

8.1.DevOps Culture and Mindset : <u>View Syllabus</u>

This course is offered by University of California, Davis. It has a rating of 4.8 with 109 ratings. So far 6,833+ students have already enrolled in this course.

This course gives you the basic foundational principles of DevOps with a particular focus on culture and the DevOps mindset. We'll learn about how DevOps is grounded in lean principles, and how it can help improve collaboration between developers and operations team members. We'll learn about ideas regarding systems thinking, feedback loops, continuous improvement, loosely coupled architecture and teams, managing risk, and dealing with unplanned work. We'll learn about strategies to manage work, monitor it, keep it organized, and maintain a high level of quality by following key DevOps principles. We'll also discuss various organizational models and structures that are used by companies in their DevOps transformations. You'll learn about value stream mapping, and ensuring continuous workflow. Ultimately, we'll learn key ideas and tactics that you can employ at your own organizations to improve both time-to-market and increase the value delivered for your customers, no matter your product line or industry.

Check the complete syllabus for DevOps Culture and Mindset

8.2.Continuous Delivery & DevOps : <u>View Syllabus</u>

This course is offered by University Virginia. It has a rating of 4.6 with 404 ratings. So far 19,261+ students have already enrolled in this course.

Amazon famously delivers new code every 11.6 seconds. Just a few years ago, this was unthinkable: many 'cutting edge' firms would release software quarterly.

When it comes to digital innovation, velocity is critical and many would say it's the most reliable determinant of success.

Bringing an organization to the state of the art (or even functional capability) in this area requires strong work in a combination of disciplines and a combination of both technical and managerial skills. There is no single cookie-cutter approach for achieving this capability. Much like agile, the right focus and formulation depends a lot on the facts and circumstances of the team. This course will provide you with the interdisciplinary skill set to cultivate a continuous deployment capability in your organization.

Check the complete syllabus for Continous Delivery and DevOps

8.3.Architecting with Google Compute Engine : <u>View Syllabus</u>

This course is offered by Google Cloud Team. So far 18,291+ students have already enrolled in this course.

This specialization introduces learners to the comprehensive and flexible infrastructure and platform services provided by Google Cloud Platform, with a focus on Compute Engine. Through a combination of presentations, demos, and hands-on labs, participants explore and deploy solution elements, including infrastructure components such as networks, systems and applications services. This course also covers deploying practical solutions including securely interconnecting networks, customer-supplied encryption keys, security and access management, quotas and billing, and resource monitoring.

This class is intended for Cloud Solutions Architects, DevOps Engineers or individuals using Compute Engine.

Check the complete syllabus of Architecting with Google Compute Engine

8.4. AWS Certified DevOps Engineer - Professional Complete Video Course : <u>View Syllabus</u>

This course is offered by Addision Wesely Professional. The author is Noah Gift. This is a 4+ hours of video instruction.

The AWS Certified Developer Complete Video Course focuses on the AWS Certified DevOps Engineer - Professional Exam. The leader in cloud computing by

market share, Amazon and their DevOps Professional certification allows you to demonstrate that you have mastered the essential skills of operationalizing a cloud.

Seven main categories are covered: AWS Certified DevOps Engineer Overview; SDLC Automation; Configuration Management and Infrastructure as Code; Monitoring and Logging; Policies and Standards Automation; Incident and Event Response; and High Availability, Fault Tolerance, and Disaster Recovery. The material focuses on teaching the concepts necessary to pass the exam and be competent as a DevOps practitioner on AWS.

Check the complete syllabus of AWS Certified DevOps Engineer - Professional Complete Video Course

8.5. DevOps Essentials on AWS Complete Video Course : View Syllabus

This course is offered by Addision Wesely Professional. The author is Paul M Duvall. This is a 4+ hours of video instruction.

In DevOps Essentials on AWS, you'll learn how to accelerate software delivery and speed up feedback loops. You'll learn how to use AWS Developer Tools to automate infrastructure and deployment pipelines for applications running on AWS. The course will provide various DevOps use cases for Amazon EC2, AWS OpsWorks, AWS Elastic Beanstalk, AWS Lambda (Serverless), Amazon ECS (Containers), while defining infrastructure as code, and learning more about AWS Developer Tools including AWS CodeStar, AWS CodeCommit, AWS CodeBuild, AWS CodePipeline, and AWS CodeDeploy.

If you're a Software Developer, or DevOps-focused Engineer, or a Solution Architect interested in learning how to use AWS Developer Tools to create a full-lifecycle software delivery solution, this is the course for you. The focus of the course is on deployment pipeline architectures and its implementations.

Check the complete syllabus of DevOps Essentials on AWS Complete Video Course

8.6. Securing Cloud DevOps in PaaS, IaaS, and SaaS Settings : View Syllabus

This course is offered by Pluralsight. The authors is Chad Russell.

The adoption and usage of DevOps tools such as Docker and Kubernetes has more than doubled. Find out why learning DevOps will be a requirement for every cyber

security professional in order to compete in the cloud economy. In this course, Securing Cloud DevOps in PaaS, IaaS, and SaaS Settings, you'll learn how to apply operational security process automation in DevOps driven cloud environments such as AWS. First, you'll explore how to secure PaaS, SaaS, and IaaS DevOps environments. Next, you'll discover how to address OWASP security guidelines as part of the CI/CD pipeline. Finally, you'll delve into securing Infrastructure as Code (IaC), along with securing container management and orchestration activities. When you're finished with this course, you'll know how to function as a DevOps security practitioner, and be responsible for securing DevOps related processes, procedures, and technologies to ensure optimal and timely security throughout the ongoing DevOps lifecycle.

Check the complete syllabus of Securing Cloud DevOps in PaaS, IaaS, and SaaS Settings

9. IT Automation

9.1.Google IT Automation with Python : View Syllabus

This course is offered by Google. It has a rating of 4.7 with 1,659 ratings. So far 25,497+ students have already enrolled in this course.

This new beginner-level, six-course certificate, developed by Google, is designed to provide IT professionals with in-demand skills -- including Python, Git, and IT automation -- that can help you advance your career.

This certificate can be completed in about 6 months and is designed to prepare you for a variety of roles in IT, like more advanced IT Support Specialist or Junior Systems Administrator positions. Upon completing the program, you'll have the option to share your information with potential employers, like Walmart, Sprint, Hulu, Bank of America, Google (of course!), and more.

Check the complete syllabus of Google IT Automation with Python

9.2.Automation in AWS with CloudFormation, CLI, and SDKs LiveLessons : View Syllabus

This course is offered by Addision Wesely Professional. The author is Richard A. Jones. This is a 11+ hours of video instruction.

Automation in AWS with CloudFormation, CLI, and SDKs LiveLessons is a video product designed to provide a guide to creating resources, organizing environments, and ongoing maintenance. The course covers methods and tools necessary to organize and automate numerous resources within the rich ecosystem of Amazon Web Services.

Automation in AWS with CloudFormation, CLI, and SDKs LiveLessons contains 9 focused lessons with more than 11 hours of video lecture, screencast, interactive monitor work, and live hands-on labs. Demonstrations of Amazon Web Services and third-party cloud solutions are included to provide a clear guide to performing common operational tasks and achieving a reliable, cost-effective, and automated environment.

Check the complete syllabus of Automation in AWS with CloudFormation, CLI, and SDKs LiveLessons

9.3. Automating Networks with Python : <u>View Syllabus</u>

This course is offered by Pluralsight. The authors is Nick Russo.

Many want to automate their production networks but simply don't know how. In this course, Automating Networks with Python, you will learn foundational knowledge of/gain the ability to overcome this challenge. First, you will learn how to collect information from, and make updates to, network devices using legacy SSH command-line methods. This includes diving into tools like Paramiko, Netmiko, and NAPALM. Next, you will discover how to write custom parsers for more advanced CLI-based automation, to include unit testing with pytest. Finally, you will explore how to use modern APIs and their supporting technologies, including NETCONF, RESTCONF, and YANG. When you're finished with this course, you will have the skills and knowledge of automated network management needed to design, implement, and maintain professional-grade infrastructure as code solutions for your business.

Check the complete Syllabus of Automating Networks with Python

10. Enterprise Service Management

10.1. Enterprise Agile Transformation LiveLessons : <u>View Syllabus</u>

Organizations are seeking growth and change as their markets, competitors, and customers evolve rapidly. Most organizations and individuals are skilled and well-focused in their day-to-day skills, but this does not suggest they have the knowledge, skills, or ability to create a coordinated and lasting change. Organizations need to be able to alter culture and thinking to remain competitive in this challenging environment. This course teaches how to create and empower this change within the organization.

Enterprise Agile Transformation LiveLessons presents a model and a defined plan to transform your organization. Agile and Change consultant Robert Annis presents the Model for Activating Change in your Organization (MACO). Robert walks you through the three phases of MACO--Assessment, Preparation, and Delivery--which are intentionally simple and intended to be continuously repeated. These phases, along with successful Leadership change (also taught in the course) are the drivers for environmental change and enablement.

Check the complete syllabus of Enterprise Agile Transformation

10.2.Information Systems Specialization : <u>View Syllabus</u>

This specialization provides a robust introduction to the key principles and practices of Information Systems Management. The first course describes how Information Systems address business problems. This takes the form of an IT alignment model that describes how Information Systems provide capabilities that enable or support organizational strategy. This component also includes an economic analysis of the Information System. The second course in the specialization entails the practice of modeling information systems. The goal of this course is to describe the Information System defined in the first course, so that the Information System can be developed. The third course provides an overview of the capabilities of modern enterprise systems. The goal of this course is to understand the capabilities of enterprise systems, so that the firm can decide if the requirement identified in the second course can be met by an enterprise system. Managerial aspects related to the selection and implementation of enterprise systems will also be discussed. The fourth course in the specialization describes the

IT infrastructure choices available to a modern enterprise and the tradeoffs associated with each alternative. Any large Information System implementation is a significant organizational change initiative that requires careful stewardship. All the courses will deal with the issue of change management and discuss strategies and approaches for achieving a successful implementation.

Check the complete syllabus of Information Systems Specialization

10.3.Computer Security and Systems Management Specialization : View Syllabus

This course is offered by University of Colorado. It has a rating of 4.6 with 898 ratings. So far 6,374+ students have already enrolled in this course.

Practical Application to System Management. Learn how to securely design and manage enterprise systems utilizing mainstream operating systems

The Computer Security and Systems Management Specialization focuses on computing in an enterprise environment. Combining both theory and real world experience and architecture, the courses will prepare you to design and audit secure enterprise systems. The courses will cover practical use of major server operating systems in an enterprise environment and how to design and operate them securely.

Check the complete syllabus of Computer Security and Systems Management Specialization

11. Internet of Things

11.1.Emerging Technologies: From Smartphones to IoT to Big Data Specialization : View Syllabus

This course is offered by Yonsei University. It has a rating of 4.6 with 291 ratings. So far 3,736+ students have already enrolled in this course.

This Specialization is intended for researchers and business experts seeking state-of-the-art knowledge in advanced science and technology. The 4 courses cover details on Big Data (Hadoop, Spark, Storm), Smartphones, Smart Watches, Android, iOS, CPU/GPU/SoC, Mobile Communications (1G to 5G), Sensors, IoT, Wi-Fi, Bluetooth, LP-WAN, Cloud Computing, AR (Augmented Reality), Skype, YouTube, H.264/MPEG-4 AVC, MPEG-DASH, CDN, and Video Streaming

Services. The Specialization includes projects on Big Data using IBM SPSS Statistics, AR applications, Cloud Computing using AWS (Amazon Web Service) EC2 (Elastic Compute Cloud), and Smartphone applications to analyze mobile communication, Wi-Fi, and Bluetooth networks. The course contents are for expert level research, design, development, industrial strategic planning, business, administration, and management.

Check the complete Syllabus of Emerging Technologies: From Smartphones to IoT to Big Data Specialisation

11.2.Introduction and Programming with IoT Boards : <u>View Syllabus</u>

This course is offered by Pohang University of Science and Technology. It has a rating of 4.5 with 100 ratings. So far 3,470+ students have already enrolled in this course.

Internet of Things (IoT) is an emerging area of information and communications technology (ICT) involving many disciplines of computer science and engineering including sensors/actuators, communications networking, server platforms, data analytics and smart applications. IoT is considered to be an essential part of the 4th Industrial Revolution along with AI and Big Data. This course will be very useful to senior undergraduate and graduate students as well as engineers who are working in the industry. This course aims at introducing the general concepts and architecture of IoT applications, networking technologies involved, IoT development kits including Arduino, Raspberry Pi, Samsung ARTIK, and how to program them. This course will be offered in English. Subtitles/captions in both of English and Korean will be also provided.

Check the complete Syllabus of Introduction and Programming with IoT Boards

11.3.Programming with Cloud IoT Platforms : <u>View Syllabus</u>

This course is offered by Pohang University of Science and Technology. It has a rating of 4.4 with 25 ratings. So far 1,766+ students have already enrolled in this course.

Internet of Things (IoT) is an emerging area of information and communications technology (ICT) involving many disciplines of computer science and engineering

including sensors / actuators, communications networking, server platforms, data analytics and smart applications. IoT is considered to be an essential part of the 4th Industrial Revolution along with AI and Big Data. This course aims at introducing IoT Cloud platforms from Samsung, Microsoft, Amazon, IBM and Google and how they can be used in developing IoT applications. This course will be offered in English. Subtitles / captions in English and will be also provided.

Check the complete Syllabus of Programming with Cloud IoT Platforms

11.4. Developing Industrial Internet of Things Specialization : View Syllabus

This course is offered by University of Colorado Boulder. It has a rating of 4.5 with 19 ratings.

In this specialization, you will engage the vast array of technologies that can be used to build an industrial internet of things deployment. You'll encounter market sizes and opportunities, operating systems, networking concepts, many security topics, how to plan, staff and execute a project plan, sensors, file systems and how storage devices work, machine learning and big data analytics, an introduction to SystemC, techniques for debugging deeply embedded systems, promoting technical ideas within a company and learning from failures. In addition, students will learn several key business concepts important for engineers to understand, like CapEx (capital expenditure) for buying a piece of lab equipment and OpEx (operational expense) for rent, utilities and employee salaries.

Check the complete syllabus of Developing Industrial Internet of Things Specialization.

11.5. Internet of Things Specialization : View Syllabus

This course is offered by University of California San Diego. So far 4,072+ students have already enrolled in this course.

This Specialization covers the development of Internet of Things (IoT) products and services—including devices for sensing, actuation, processing, and communication—to help you develop skills and experiences you can employ in designing novel systems. The Specialization has theory and lab sections. In the lab sections you will learn hands-on IoT concepts such as sensing, actuation and communication. In the final Capstone Project, developed in partnership with

Qualcomm, you'll apply the skills you learned on a project of your choice using the DragonBoard 410c platform.

Check the complete syllabus of Internet of Things Specialization

12. Enterprise Learning Management

I have not found any course to teach this. May be someday when some course comes up I will update it here.

13. Robotic Process Automation

13.1. Implementing RPA with Cognitive Automation and Analytics Specialization : View Syllabus

This course is offered by Automation Anywhere.

The explosive growth of Robotic Process Automation (RPA) in the past few years has created a tremendous demand to learn and become skilled in this exciting technology. This four course Specialization is designed to introduce RPA, provide a foundation of the RPA lifecycle--from design to bot deployment--and implement RPA with cognitive automation and analytics. Experienced and novice users and developers of RPA will all benefit from completing this Specialization. If you are interested in starting a career in automation or boosting your profile in it, now's the time and here's the place!

With RPA, companies can deploy software robots to automate repetitive tasks, improving business processes and outcomes. When used in combination with cognitive automation and automation analytics, RPA can help transform the nature of work, adopting the model of a Digital Workforce for organizations. This allows human employees to focus on more value-added work, improve efficiency, streamline processes, and improve key performance indicators.

Check the complete syllabus for Implementing RPA with Cognitive Automation and Analytics Specialisation.

13.2. Making the Case for Robotic Process Automation : View Syllabus

This course is offered by Association of International CPA.

This course is intended to provide accounting and financial professionals with practical literacy on robotic process automation through a real-world, relevant data preparation use case. It will help identify potential uses and the benefits and considerations for robotic process automation.   This course will help you make the business case by helping you assess requirements, define proof of value and measure and validate the ROI for automation.

Check the complete syllabus for Making the case for Robotic Process Automation

13.3.Cognitive Solutions and RPA Analytics : <u>View Syllabus</u>

This course is offered by Automation Anywhere.

In this course, you will be introduced to cognitive automation, the role that AI plays in it, and Automation Anywhere's cognitive solution, IQ Bot. You will also be introduced to RPA analytics and explore how Automation Anywhere's Web Control Room and Bot Insight can provide this functionality.

As you begin this course, you will learn the six steps to deploy cognitive automation. Next, you will explore the IQ Bot portal – Automation Anywhere's web-based application for developing the cognitive IQ bots. You will then learn to use the portal by following the IQ Bot workflow.

Next, you will learn how RPA analytics help interpret and improve automated business processes. You will see how Bot Insight functions as an RPA analytics platform.

You will also explore the different types of RPA analytics and learn how to generate RPA analytics via two mechanisms – the Web Control Room for Operational Analytics and Bot Insight for Business Analytics and CoE Analytics.

Finally, you will learn how to use the RPA mobile app to study and edit the default CoE dashboard that is published via Bot Insight.

Check the syllabus for Cognitive Solutions and RPA Analytics

14. Artificial Intelligence & Machine Learning

14.1. Applied Data Science with Python Specialization <u>View Syllabus</u>

This course is offered by University of Michigan. It has a rating of 4.5 with 26,686 ratings. So far 127,969+ students have already enrolled in this course.

The 5 courses in this University of Michigan specialization introduce learners to data science through the python programming language. This skills-based specialization is intended for learners who have a basic python or programming background, and want to apply statistical, machine learning, information visualization, text analysis, and social network analysis techniques through popular python toolkits such as pandas, matplotlib, scikit-learn, nltk, and networkx to gain insight into their data.

Introduction to Data Science in Python (course 1), Applied Plotting, Charting & Data Representation in Python (course 2), and Applied Machine Learning in Python (course 3) should be taken in order and prior to any other course in the specialization. After completing those, courses 4 and 5 can be taken in any order. All 5 are required to earn a certificate.

<u>Check the complete syllabus of Applied Data Science with Python Specialization here</u>

14.2. Machine Learning Specialization <u>View Syllabus</u>

This course is offered by University of Washington. It has a rating of 4.7 with 18,731 ratings. So far 73,461+ students have already enrolled in this course.

This Specialization from leading researchers at the University of Washington introduces you to the exciting, high-demand field of Machine Learning. Through a series of practical case studies, you will gain applied experience in major areas of Machine Learning including Prediction, Classification, Clustering, and Information Retrieval. You will learn to analyze large and complex datasets, create systems that adapt and improve over time, and build intelligent applications that can make predictions from data.

<u>Check the complete syllabus of Machine Learning Specialisation here</u>

14.3. Data Science: Foundations using R <u>View Syllabus</u>

This course is offered by Johns Hopkins University. It has a rating of 4.6 with 53,655 ratings. So far 5,841+ students have already enrolled in this course.

This Specialization covers foundational data science tools and techniques, including getting, cleaning, and exploring data, programming in R, and conducting reproducible research. Learners who complete this specialization will be prepared to take the *Data Science: Statistics and Machine Learning* specialization, in which they build a data product using real-world data.

The five courses in this specialization are the very same courses that make up the first half of the Data Science Specialization. This specialization is presented for learners who want to start and complete the foundational part of the curriculum first, before moving onto the more advanced topics in *Data Science: Statistics and Machine Learning*.

<u>Check the complete syllabus of Data Science Foundations using R here</u>

14.4. Data Science: Statistics and Machine Learning <u>View Syllabus</u>

This course is offered by Johns Hopkins University. It has a rating of 4.4 with 12,181 ratings. So far 1,576+ students have already enrolled in this course.

This specialization continues and develops on the material from the *Data Science: Foundations using R specialization*. It covers statistical inference, regression models, machine learning, and the development of data products. In the Capstone Project, you'll apply the skills learned by building a data product using real-world data. At completion, learners will have a portfolio demonstrating their mastery of the material.

The five courses in this specialization are the very same courses that make up the second half of the Data Science Specialization. This specialization is presented for learners who have already mastered the fundamentals and want to skip right to the more advanced courses.

<u>Check the complete syllabus for Data Science: Statistics and Machine Learning here</u>

14.5. Deep Learning <u>View Syllabus</u>

This course is offered by Deep Learning AI. It has a rating of 4.8 with 198,033 ratings. So far 289,694+ students have already enrolled in this course.

If you want to break into AI, this Specialization will help you do so. Deep Learning is one of the most highly sought after skills in tech. We will help you become good at Deep Learning.

In five courses, you will learn the foundations of Deep Learning, understand how to build neural networks, and learn how to lead successful machine learning projects. You will learn about Convolutional networks, RNNs, LSTM, Adam, Dropout, BatchNorm, Xavier/He initialization, and more. You will work on case studies from healthcare, autonomous driving, sign language reading, music generation, and natural language processing. You will master not only the theory, but also see how it is applied in industry. You will practice all these ideas in Python and in TensorFlow, which we will teach.

You will also hear from many top leaders in Deep Learning, who will share with you their personal stories and give you career advice.

AI is transforming multiple industries. After finishing this specialization, you will likely find creative ways to apply it to your work. We will help you master Deep Learning, understand how to apply it, and build a career in AI.

<u>Check the complete syllabus of Deep Learning here</u>

14.6. Advanced Machine Learning Specialization <u>View Syllabus</u>

This course is offered by National Research University Higher School of Economics . So far 13,043+ students have already enrolled in this course.

This specialization gives an introduction to deep learning, reinforcement learning, natural language understanding, computer vision and Bayesian methods. Top Kaggle machine learning practitioners and CERN scientists will share their experience of solving real-world problems and help you to fill the gaps between theory and practice. Upon completion of 7 courses you will be able to apply modern machine learning methods in enterprise and understand the caveats of real-world data and settings.

<u>Check the complete syllabus of Advanced Machine Learning Specialization here</u>

15. Digital Marketing

15.1. Digital Marketing Specialization : <u>View Syllabus</u>

This course is offered by University of Illinois. So far 47,918+ students have already enrolled in this course.

This Specialization explores several aspects of the new digital marketing environment, including topics such as digital marketing analytics, search engine optimization, social media marketing, and 3D Printing. When you complete the Digital Marketing Specialization you will have a richer understanding of the foundations of the new digital marketing landscape and acquire a new set of stories, concepts, and tools to help you digitally create, distribute, promote and price products and services.

<u>Check the complete syllabus of Digital Marketing Specialisation</u>

15.2. Search Engine Optimization (SEO) Specialization : <u>View Syllabus</u>

This course is offered by University of California, Davis. So far 3,852+ students have already enrolled in this course.

This Specialization will teach you to optimize website content for the best possible search engine ranking. You'll learn the theory behind Google search and other search engine algorithms; you'll also build practical, real-world skills that you can apply to a career in digital marketing or online content development, including on-page and off-page optimization, optimizing for local and international audiences, conducting search-focused website audits, and aligning SEO with overall business strategies. Each course is intended to build on the skills from the previous course, thus we recommend you take the courses in the order they are listed. The Specialization culminates in a hands-on Capstone Project, in which you will apply your skills to a comprehensive SEO consulting task.

<u>Check the complete syllabus of Search Engine Optimization (SEO) Specialisation</u>

15.3. Content Strategy for Professionals Specialization : <u>View Syllabus</u>

This course is offered by Northwestern University. It has a rating of 4.5 with 948 ratings. So far 7,956+ students have already enrolled in this course.

Content Strategy uses credible, trustworthy, transparent media to communicate stories and information to enhance an organization's strategic goals. In this Specialization, you'll learn best practices from recognized industry and academic experts on how to create and implement engaging content across media platforms that the people you want to reach will really value.

You'll learn how to engage your audience by implementing their stories and using proven tools and techniques to enhance an audience's experience and interests. You'll manage content once created by learning how best to tell an organization's "content story" across media platforms using a human-centered design. You'll also learn actionable ways to grow internal and external audiences, and expand your content's reach.

Check the syllabus of Content Strategy for Professionals Specialization

16. Digital Product Engineering

16.1. Digital Product Management: Modern Fundamentals : View Syllabus

This course is offered by University of Virginia. It has a rating of 4.7 with 1,236 ratings. So far 45,511+ students have already enrolled in this course.

This course will help you along your learning journey and prepare you with the skills and perspective you need to:

Create the actionable focus to successfully manage your product (week 1)

Focus your work using modern product management methods (week 2)

Manage new products and explore new product ideas (week 3)

Manage and amplify existing products (week 4)

This course is ideal for current product or general managers interested in today's modern product management methods.

Check the Complete Syllabus of Digital Product Management : Modern Fundamentals

17. Omni Channel Marketing

I have not found any course to teach this. May be someday when some course comes up I will update it here.

18. Content Personalisation

I have not found any course to teach this. May be someday when some course comes up I will update it here.

19. 3D Animation & Printing

19.1. Unity Certified 3D Artist Specialization : <u>View Syllabus</u>

This course is offered by Unity. It has a rating of 4.8 with 118 ratings.

This is Unity's official series of courses designed to prepare you for the Unity Certified 3D Artist exam, the certification for entry- to mid-level 3D artists who work with the Unity platform. This series of courses is for 3D Artists who have used Unity for real-time rendering for 1-2 years, and are ready to bring their existing skills up to a professional standard.

Learners in this Specialization will complete multiple project milestones across 2 main projects: a Kitchen Configuration application with a realistic aesthetic, and a 3D video game level with a more stylized science-fantasy look. Across these 2 projects, learners will complete tasks including importing assets, manipulating materials, creating prefabs, adding lighting, setting up character models, and building cutscenes.

<u>Check the complete Syllabus of Unity Certified Artist Specialization</u>

19.2. Unity Certified Programmer Exam Preparation Specialization : <u>View Syllabus</u>

This course is offered by Unity. It has a rating of 4.4 with 250 ratings. So far 2,245+ students have already enrolled in this course.

This is Unity's official series of courses designed to prepare you for the Unity Certified Programmer exam, the certification for entry- to mid-level Unity programmers. You'll gain practice and experience in each of the topics covered in the exam through hands-on problem solving challenges. You'll build two complete

Unity projects end-to-end, implementing core interactivity, supporting systems, and platform optimizations This series of courses is for Unity programmers with 1-2 years of experience who are ready to bring their existing skills up to a professional standard.

You'll create 2 full Unity projects to explore each of the objectives in the Unity Certified Programmer exam. In AsteraX, you'll create a 2D arcade game with some tricky mechanics and user customization options, and you'll port the finished game to a mobile platform. In Stealth, you'll implement a stealth-style game including features such as a complex camera system, agent navigation, animation state machines, and a mini-map overlay.

Check the complete syllabus of Unity Certified Programmer Exam Preparation Specialization

19.3.Game Design and Development Specialization : <u>View Syllabus</u>

This course is offered by Unity. It has a rating of 4.6 with 6,228 ratings. So far 18,032+ students have already enrolled in this course.

Break into the video game industry with theoretical, technical, and business knowledge from one of the world's best programs.

This Specialization covers the theoretical and practical foundations of video game production using the Unity 3D game engine. The Specialization is taught by faculty at Michigan State University with over fifty years of combined experience building games and teaching game production. Michigan State University is one of the top-rated game design and development programs in North America. You'll learn to develop a game concept; prototype, test, and iterate on your ideas; and navigate licensing, marketing, and other business considerations. The specialization builds a solid foundation for industry roles as a gameplay designer, level designer, technical designer, technical artist, programmer, or producer. The capstone partner for the specialization is the online game portal Kongregate, which provides an avenue for distribution of the capstone project, as well as a pathway for monetization for aspiring game developers.

Learners will build four complete Unity3D game projects by applying knowledge and skills including: using the Unity3D editor to develop a game, understanding the game asset pipeline, designing effective game levels, C# programming, and building and deploying games. In the final Capstone Project, you'll build an

original market-ready game while interacting with a supportive community of designers and developers.

Check the complete the syllabus of Game Design and Development Specialisation.

20. Augmented Reality

20.1. Unity XR: How to Build AR and VR Apps Specialization : <u>View Syllabus</u>

This course is offered by Unity. It has a rating of 4.0 with 103 ratings. So far 2,232+ students have already enrolled in this course.

Welcome to the world of Unity XR! This specialization includes three courses which will explain the technologies that make XR possible, describe the unique UX concerns around developing for XR, and walk you through developing VR and AR apps for mobile devices. You will learn how Unity supports the many components of a VR app, including tracking, teleporting, interacting with virtual objects, positional audio, and much more. You'll also see how Unity's AR Foundation supports building handheld AR apps. XR is a field that is constantly evolving, and we'll show you what's on the horizon for VR and AR.

Check the complete Syllabus of Unity XR: How to Build AR and VR Apps Specialization

21. Blockchain

21.1. Blockchain Specialization : <u>View Syllabus</u>

This course is offered by University of Buffalo - The State University of New York. It has a rating of 4.6 with 4,365 ratings. So far 18,670+ students have already enrolled in this course.

This specialization introduces blockchain, a revolutionary technology that enables peer-to-peer transfer of digital assets without any intermediaries, and is predicted to be just as impactful as the Internet. More specifically, it prepares learners to program on the Ethereum blockchain. The four courses provide learners with (i) an understanding and working knowledge of foundational blockchain concepts, (ii) a skill set for designing and implementing smart contracts, (iii) methods for

developing decentralized applications on the blockchain, and (iv) information about the ongoing specific industry-wide blockchain frameworks.

The specialization covers a range of essential topics, from the cryptographic underpinnings of blockchain technology to enabling decentralized applications on a private Ethereum blockchain platform.

It is ideal for programmers and designers involved in developing and implementing blockchain applications, and anyone who is interested in understanding its potential.

Check the complete syllabus of Blockchain Specialization

21.2.Blockchain Specialization : View Syllabus

This course is offered by University of California, Irvine. It has a rating of 4.4 with 24 ratings.

Gain a fundamental understanding of blockchain technology and its components. Learn how such applications as cryptofinance makes use of the blockchain for decentralized, peer-to-peer transaction processing. Apply your knowledge of blockchain technology to enhance your trust and confidence in cryptocurrency trading and other situations where the blockchain is used.

Throughout this course, you'll have opportunities for hands-on practice involving such blockchain elements as cryptography, hashing, and the assembly of blocks. You'll also have a chance to propose new uses of blockchain technologies for industries other than finance. The creative skills you'll learn and practice in this course will be useful both when using blockchain applications and when exploring new opportunities for applying blockchain concepts.

Check the complete syllabus of Blockchain Specialization.

22. Drones

22.1.Robotics Specialization : View Syllabus

The Introduction to Robotics Specialization introduces you to the concepts of robot flight and movement, how robots perceive their environment, and how they adjust their movements to avoid obstacles, navigate difficult terrains and accomplish complex tasks such as construction and disaster recovery. You will be exposed to real world examples of how robots have been applied in disaster situations, how

they have made advances in human health care and what their future capabilities will be. The courses build towards a capstone in which you will learn how to program a robot to perform a variety of movements such as flying and grasping objects.

Check the complete syllabus of Robotics Specialization

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