

Programa 5: Certificaciones Profesionales de Google - Redes de Google Cloud, Soporte de TI y Automatización de TI					
Nombre del curso	Descripción del curso	Idioma del curso	Cursos con subtítulos	Institución	Nivel de dificultad
Google Cloud Platform Fundamentals: Core Infrastructure	This course introduces you to important concepts and terminology for working with Google Cloud Platform (GCP). You learn about, and compare, many of the computing and storage services available in Google Cloud Platform, including Google App Engine, Google Compute Engine, Google Kubernetes Engine, Google Cloud Storage, Google Cloud SQL, and BigQuery. You learn about important resource and policy management tools, such as the Google Cloud Resource Manager hierarchy and Google Cloud Identity and Access Management. Hands-on labs give you foundational skills for working with GCP. Note: Google services are currently unavailable in China.	Inglés	SI	Google Cloud	Principiante
Hands-On Labs in Google Cloud for Networking Engineers	Networking is a principal theme of cloud computing. It's the underlying structure of Google Cloud, and it's what connects all your resources and services to one another. In this series of hands-on labs, completed on Qwiklabs, you will gain additional practice with specialized tools for developing mature networks. This course is unlike other courses, in that it consists of one module of background videos, followed by a series of hands-on practice exercises on Google Cloud via Qwiklabs. The practice modules include no videos, lectures, or quizzes - just more practice on real Google Cloud.	Inglés	SI	Google Cloud	Principiante
Networking in Google Cloud: Defining and Implementing Networks	This course gives participants a broad study of networking options on Google Cloud. Through recorded lectures, demonstrations, and hands-on labs, participants explore and deploy Google Cloud networking technologies, such as Google Virtual Private Cloud (VPC) networks, subnets and firewalls. The course also covers access control to networks, sharing networks and load balancing.	Inglés	NO	Google Cloud	Principiante
Networking in Google Cloud: Hybrid Connectivity and Network Management	This course builds on the Networking in Google Cloud: Defining and Implementing Networks course and enhances participants study of networking options on Google Cloud. Through recorded lectures, demonstrations, and hands-on labs, participants explore and deploy Google Cloud networking technologies, such as the interconnection among networks, common network design patterns and the automated deployment of networks using Deployment Manager or Terraform. The course also covers networking pricing and billing to help you optimize your network spend and monitoring and logging features that can help you troubleshoot your Google Cloud network infrastructure.	Inglés	NO	Google Cloud	Principiante
Los bits y bytes de las redes informáticas	Este curso está diseñado para brindar una visión general completa de las redes de computadoras. Abordaremos todo, desde los fundamentos de las tecnologías y los protocolos de redes modernas hasta una descripción general de la nube, aplicaciones prácticas y solución de problemas de red. Cerraremos viendo cómo podría aparecer esta información en una entrevista laboral y brindándote algunos consejos para que resuelvas problemas en el momento. Al final de este curso, podrás: <ul style="list-style-type: none"> describir redes de computadoras en términos de un modelo de cinco capas, comprender todos los protocolos estándar relacionados con las comunicaciones TCP/IP, comprender potentes herramientas y técnicas de solución de problemas de red, conocer servicios de red como DNS y DHCP que facilitan el funcionamiento de las redes de computadoras, comprender la computación en la nube, el concepto de "Todo como servicio" y el almacenamiento en la nube. 	Español	NO	Crece con Google	Principiante

Aspectos básicos de la asistencia técnica	<p>Este curso es el primero de una serie que tiene como objetivo prepararte para un rol como especialista de soporte de TI de nivel inicial. En este curso, serás introducido en el mundo de la tecnología de la información, o TI. Aprenderás sobre las diferentes facetas de la tecnología de la información como hardware y software informático, Internet, solución de problemas y servicio al cliente. Revisaremos el aspecto de una entrevista técnica y brindaremos consejos sobre cómo prepararse mejor para una entrevista. Este curso abarca una amplia variedad de temas en TI que están diseñados para brindarte una visión general de lo que vendrá en este programa de certificado.</p> <p>Al final de este curso, podrás:</p> <ul style="list-style-type: none"> entender cómo funciona el sistema binario; ensamblar una computadora desde cero; elegir e instalar un sistema operativo en una computadora; comprender qué es Internet, cómo funciona y el impacto que tiene en el mundo moderno; aprender cómo se crean las aplicaciones y cómo funcionan en una computadora; utilizar metodologías comunes de resolución de problemas y habilidades básicas en un entorno de tecnología de la información. 	Español	NO	Crece con Google	Principiante
Crash Course on Python	<p>This course is designed to teach you the foundations in order to write simple programs in Python using the most common structures. No previous exposure to programming is needed. By the end of this course, you'll understand the benefits of programming in IT roles; be able to write simple programs using Python; figure out how the building blocks of programming fit together; and combine all of this knowledge to solve a complex programming problem.</p> <p>We'll start off by diving into the basics of writing a computer program. Along the way, you'll get hands-on experience with programming concepts through interactive exercises and real-world examples. You'll quickly start to see how computers can perform a multitude of tasks — you just have to write code that tells them what to do.</p>	Inglés	SI	Google	Principiante
Troubleshooting and Debugging Techniques	<p>In this course, we'll give you the tools to quickly identify and solve real-world problems that you might come across in your IT role. We'll look at a bunch of different strategies and approaches for tackling the most common pitfalls of your code and IT infrastructure. You'll learn strategies for approaching almost any technical problem and then see how those apply to solving different real-world scenarios.</p> <p>We picked examples that include general system issues, issues with software that someone else wrote, and issues with programs that we wrote. We'll talk about problems that can affect any operating system, and we'll also look at challenges specific to certain platforms and scripting languages.</p> <p>We strongly recommend that you've taken the prior courses in this program, or already have knowledge of Python and Linux so that you can follow along with our troubleshooting examples.</p>	Inglés	SI	Google	Principiante
Configuration Management and the Cloud	<p>In this course, you'll learn how to apply automation to manage fleets of computers. You'll understand how to automate the process for deploying new computers, keeping those machines updated, managing large-scale changes, and a lot more. We'll discuss managing both physical machines running in our offices and virtual machines running in the Cloud.</p> <p>We'll start by looking into an automation technique called configuration management, which lets you manage the configuration of our computers at scale. Specifically, you'll learn how to use Puppet, the current industry standard for configuration management. We'll look at some simple examples, and then see how we can apply the same concepts to more complex cases. You'll be a Puppet-master in no time!</p> <p>Later on, you'll expand your automation skills by understanding how to use the Cloud to help scale your infrastructure. You'll check out some best practices for handling hundreds of virtual machines running in the Cloud and troubleshooting them when things don't go according to plan.</p>	Inglés	SI	Google	Principiante

<p>Technical Support Fundamentals</p>	<p>This course is the first of a series that aims to prepare you for a role as an entry-level IT Support Specialist. In this course, you'll be introduced to the world of Information Technology, or IT. You'll learn about the different facets of Information Technology, like computer hardware, the Internet, computer software, troubleshooting, and customer service. This course covers a wide variety of topics in IT that are designed to give you an overview of what's to come in this certificate program.</p> <p>By the end of this course, you'll be able to:</p> <ul style="list-style-type: none"> understand how the binary system works assemble a computer from scratch choose and install an operating system on a computer understand what the Internet is, how it works, and the impact it has in the modern world learn how applications are created and how they work under the hood of a computer utilize common problem-solving methodologies and soft skills in an Information Technology setting 	<p>Inglés</p>	<p>SI</p>	<p>Google</p>	<p>Principiante</p>
<p>The Bits and Bytes of Computer Networking</p>	<p>This course is designed to provide a full overview of computer networking. We'll cover everything from the fundamentals of modern networking technologies and protocols to an overview of the cloud to practical applications and network troubleshooting.</p> <p>By the end of this course, you'll be able to:</p> <ul style="list-style-type: none"> describe computer networks in terms of a five-layer model understand all of the standard protocols involved with TCP/IP communications grasp powerful network troubleshooting tools and techniques learn network services like DNS and DHCP that help make computer networks run understand cloud computing, everything as a service, and cloud storage 	<p>Inglés</p>	<p>SI</p>	<p>Google</p>	<p>Principiante</p>
<p>Operating Systems and You: Becoming a Power User</p>	<p>In this course -- through a combination of video lectures, demonstrations, and hands-on practice -- you'll learn about the main components of an operating system and how to perform critical tasks like managing software and users, and configuring hardware.</p> <p>By the end of this course you'll be able to:</p> <ul style="list-style-type: none"> navigate the Windows and Linux filesystems using a graphical user interface and command line interpreter set up users, groups, and permissions for account access install, configure, and remove software on the Windows and Linux operating systems configure disk partitions and filesystems understand how system processes work and how to manage them work with system logs and remote connection tools utilize operating system knowledge to troubleshoot common issues in an IT Support Specialist role 	<p>Inglés</p>	<p>SI</p>	<p>Google</p>	<p>Principiante</p>
<p>System Administration and IT Infrastructure Services</p>	<p>This course will transition you from working on a single computer to an entire fleet. Systems administration is the field of IT that's responsible for maintaining reliable computers systems in a multi-user environment. In this course, you'll learn about the infrastructure services that keep all organizations, big and small, up and running. We'll deep dive on cloud so that you'll understand everything from typical cloud infrastructure setups to how to manage cloud resources. You'll also learn how to manage and configure servers and how to use industry tools to manage computers, user information, and user productivity. Finally, you'll learn how to recover your organization's IT infrastructure in the event of a disaster.</p> <p>By the end of this course you'll be able to:</p> <ul style="list-style-type: none"> utilize best practices for choosing hardware, vendors, and services for your organization understand how the most common infrastructure services that keep an organization running work, and how to manage infrastructure servers understand how to make the most of the cloud for your organization manage an organization's computers and users using the directory services, Active Directory, and OpenLDAP choose and manage the tools that your organization will use backup your organization's data and know how to recover your IT infrastructure in the case of a disaster utilize systems administration knowledge to plan and improve processes for IT environments 	<p>Inglés</p>	<p>SI</p>	<p>Google</p>	<p>Principiante</p>
<p>IT Security: Defense against the digital dark arts</p>	<p>This course covers a wide variety of IT security concepts, tools, and best practices. It introduces threats and attacks and the many ways they can show up. We'll give you some background of encryption algorithms and how they're used to safeguard data.</p> <p>Then, we'll dive into the three As of information security: authentication, authorization, and accounting. We'll also cover network security solutions, ranging from firewalls to Wifi encryption options. The course is rounded out by putting all these elements together into a multi-layered, in-depth security architecture, followed by recommendations on how to integrate a culture of security into your organization or team.</p> <p>At the end of this course, you'll understand:</p> <ul style="list-style-type: none"> how various encryption algorithms and techniques work as well as their benefits and limitations various authentication systems and types the difference between authentication and authorization how to evaluate potential risks and recommend ways to reduce risk best practices for securing a network how to help others to grasp security concepts and protect themselves. 	<p>Inglés</p>	<p>SI</p>	<p>Google</p>	<p>Principiante</p>

<p>Seguridad informática: defensa contra las artes oscuras digitales</p>	<p>Este curso cubre una amplia variedad de conceptos, herramientas y mejores prácticas de seguridad de TI. Introduce amenazas y ataques, y las muchas formas en que pueden aparecer. Te daremos algunos antecedentes de algoritmos de cifrado y cómo se utilizan para salvaguardar los datos. Luego, nos sumergiremos en los tres sistemas de seguridad de la información: autenticación, autorización y contabilidad. También cubriremos soluciones de seguridad de red, que van desde Firewalls hasta opciones de encriptación de Wifi. Finalmente, veremos un caso de estudio, donde examinaremos el modelo de seguridad del sistema operativo Chrome. El curso se completa al reunir todos estos elementos en una arquitectura de seguridad de múltiples capas y en profundidad, seguido de recomendaciones sobre cómo integrar una cultura de seguridad en tu organización o equipo.\n\nAl final de este curso, entenderás:\n• cómo funcionan los diversos algoritmos y técnicas de cifrado, así como sus ventajas y limitaciones.\n• varios sistemas y tipos de autenticación.\n• la diferencia entre autenticación y autorización.\n• cómo evaluar los riesgos potenciales y recomendar formas de reducir el riesgo.\n• mejores prácticas para asegurar una red.\n• cómo ayudar a otros a comprender los conceptos de seguridad y protegerse a sí mismos.</p>	<p>Español</p>	<p>NO</p>	<p>Crece con Google</p>	<p>Avanzado</p>
<p>Sistemas operativos y tú: Convertirse en un usuario avanzado</p>	<p>En este curso, a través de una combinación de conferencias de video, demostraciones y prácticas, aprenderás acerca de los componentes principales de un sistema operativo y cómo realizar tareas críticas tales como administrar software y usuarios, y configurar hardware. Vamos a terminar con un ejemplo de cómo puede aparecer este contenido en una entrevista.\n\nAl final de este curso, podrás:\n• navegar por los sistemas de archivos de Windows y Linux utilizando una interfaz gráfica de usuario y un intérprete de línea de comandos.\n• configurar usuarios, grupos y permisos para el acceso a la cuenta.\n• instalar, configurar y eliminar software en los sistemas operativos Windows y Linux.\n• configurar particiones de disco y sistemas de archivos.\n• comprender cómo funcionan los procesos del sistema y cómo gestionarlos.\n• trabajar con registros del sistema y herramientas de conexión remota.\n• utilizar el conocimiento del sistema operativo para solucionar problemas comunes en un rol de Especialista de soporte de TI.</p>	<p>Español</p>	<p>NO</p>	<p>Crece con Google</p>	<p>Avanzado</p>
<p>Administración de sistemas y servicios de infraestructura de TI</p>	<p>Este curso te hará pasar de trabajar en una sola computadora a una flota completa. La administración de sistemas es el campo de TI que es responsable de mantener sistemas informáticos confiables en un entorno multiusuario. En este curso, aprenderás sobre los servicios de infraestructura que mantienen en funcionamiento a todas las organizaciones, grandes y pequeñas. Nos sumergiremos en la nube para que puedas comprender todo, desde las configuraciones típicas de infraestructura de la nube hasta cómo administrar los recursos en ella. También aprenderás cómo administrar y configurar servidores, y cómo usar herramientas de la industria para administrar computadoras, información de usuarios y productividad de usuarios. Finalmente, aprenderás cómo recuperar la infraestructura de TI de tu organización en caso de un desastre.\n\nAl final de este curso, podrás:\n• utilizar las mejores prácticas para elegir hardware, proveedores y servicios para tu organización.\n• comprender cómo los servicios de infraestructura más comunes mantienen una organización, el trabajo en ejecución y cómo administrar los servidores de infraestructura.\n• comprender cómo aprovechar al máximo la nube para tu organización.\n• administrar las computadoras y los usuarios de una organización utilizando los servicios de directorio, Active Directory y OpenLDAP.\n• elegir y administrar las herramientas que usará tu organización.\n• hacer una copia de seguridad de los datos de tu organización y saber cómo recuperar su infraestructura de TI en el caso de un desastre.\n• utilizar el conocimiento de administración de sistemas para planificar y mejorar los procesos para entornos de TI.</p>	<p>Español</p>	<p>NO</p>	<p>Crece con Google</p>	<p>Avanzado</p>
<p>Using Python to Interact with the Operating System</p>	<p>By the end of this course, you'll be able to manipulate files and processes on your computer's operating system. You'll also have learned about regular expressions -- a very powerful tool for processing text files -- and you'll get practice using the Linux command line on a virtual machine. And, this might feel like a stretch right now, but you'll also write a program that processes a bunch of errors in an actual log file and then generates a summary file. That's a super useful skill for IT Specialists to know.\n\nWe'll kick off by exploring how to execute Python locally, and organize and use code across different Python files. We'll then learn how to read and write different types of files, and use subprocesses and input streams. We'll also dive into Bash scripting and regular expressions -- both very powerful tools for anyone working with systems. We'll even touch on automatic testing, which allow us to automate how we check if our code is correct. To finish, we'll put all this together by using the tools that we've acquired to process data and generate automatic reports.\n\nWe'll also explain how to set up your own developer environment in your machine. This is a key step in being able to write and deploy powerful automation tools.</p>	<p>Inglés</p>	<p>SI</p>	<p>Google</p>	<p>Avanzado</p>

<p>Introduction to Git and GitHub</p>	<p>In this course, you'll learn how to keep track of the different versions of your code and configuration files using a popular version control system (VCS) called Git. We'll also go through how to setup an account with a service called GitHub so that you can create your very own remote repositories to store your code and configuration. \n\nThroughout this course, you'll learn about Git's core functionality so you can understand how and why it's used in organizations. We'll look into both basic and more advanced features, like branches and merging. We'll demonstrate how having a working knowledge of a VCS like Git can be a lifesaver in emergency situations or when debugging. And then we'll explore how to use a VCS to work with others through remote repositories, like the ones provided by GitHub.\n\nBy the end of this course, you'll be able to store your code's history in Git and collaborate with others in GitHub, where you'll also start creating your own portfolio! \n\nIn order to follow along and complete the assessments, you'll need a computer where you can install Git or ask your administrator to install it for you.</p>	<p>Inglés</p>	<p>SI</p>	<p>Google</p>	<p>Intermedio</p>
<p>Automating Real-World Tasks with Python</p>	<p>In the final course, we'll tie together the concepts that you've learned up until now. You'll tackle real-world scenarios in Qwiklabs that will challenge you to use multiple skills at once.\n\nFirst, we'll take a closer look at how to use external Python modules to extend your code's capabilities, and spend some time learning how to use documentation to learn a new module. For example, we'll use the Python Image Library (PIL) to create and modify images. We'll show you some simple examples of how to perform common tasks in the course material, but it will be up to you to explore the module documentation to figure out how to solve specific problems.\n\nNext, we'll show you how to communicate with the world outside of your code! You'll use data serialization to turn in-memory objects into messages that can be sent to other programs. Your program will send messages across the network to Application Programming Interfaces (APIs) offered by other programs. For those times when your code needs to talk to a person instead of a program, you'll also learn to send email messages.\n\nAt the end of this course, you'll be able to take a description of a problem and use your skills to create a solution -- just like you would on the job. In your final capstone project, you'll be given a description of what your customer needs, and it will be up to you to create a program to do it!</p>	<p>Inglés</p>	<p>SI</p>	<p>Google</p>	<p>Avanzado</p>