



# GOOGLE IT SUPPORT PROFESSIONAL CERTIFICATE

A QUICK-START GUIDE  
FOR NEW PROVIDER ORGANIZATIONS



[Google.org](https://www.google.org)

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# INTRODUCTION

## How to Use This Guide

This is a “quick start” resource for groups such as nonprofit organizations or community colleges that want to offer the [Google IT Support Professional Certificate](#). The resource was created by JFF, a national education and workforce nonprofit, with the support of Google.org and Grow with Google. It provides an overview of the certificate program and the roles and responsibilities of organizations that offer it. This includes a toolkit of effective strategies for recruiting, instructing, and supporting learners. We will be continuously updating this guide with the latest certificate curriculum and sharing any learnings we have on best practices, so please check back regularly. If you are a Learning Facilitator, please review the Facilitator Guide available [here](#).

Since Google introduced the certificate in January 2018, JFF has been working with a range of high-performing nonprofit organizations and community colleges—in select states—to offer the Google certificate to learners. If you’re interested in joining a learning community with these organizations, attending a webinar, or learning more about the certificate please [email JFF at jffcollaboration@gmail.com](mailto:jffcollaboration@gmail.com).

## About the Program

The Google IT Support Professional Certificate is a program from [Grow with Google](#), an initiative to help everyone—those who make up the workforce of today and the students who will drive the workforce of tomorrow—access the best of Google’s training and tools to grow their skills, careers, and businesses.

**“We launched the certificate as a first-of-its-kind program to help learners from underrepresented backgrounds bridge the digital divide and train for middle-skill IT jobs.”**

*Mahmoud Ramadan  
Portfolio Manager, Google.org*

The certificate program is based on Google’s own experience in hiring and training information technology (IT) support personnel. When Google encountered challenges finding qualified IT Support applicants, they developed their own program to train and hire nontraditional talent for their IT support roles. From this program, they learned that IT is a very teachable skill, and that by prioritizing skills-based trainings over traditional degree requirements, they could create real paths to jobs. Seeing how well this program worked internally, it soon became apparent that a program like this could help people outside of Google, too. Grow

with Google launched the Google IT Support Professional Certificate in January 2018. Since

then, thousands of learners from across the country, often with no prior experience or college degree, have earned their certificate. For many of them it has been transformative, opening up new opportunities and career paths.

## **THE GOOGLE IT SUPPORT PROFESSIONAL CERTIFICATE: AN OVERVIEW**

Companies rely on technology every day, but sometimes that technology fails us. Computers break, systems fail, phones die; and when those things happen, we need experts to fix them. IT support is all about troubleshooting and problem solving when technology fails, and providing great customer service along the way.

IT support is one of the fastest-growing fields in the United States, outpacing the growth rate of all other occupations. IT support professionals are skilled workers who help their employers solve technical problems, and they don't necessarily need college degrees to be successful. According to the [Bureau of Labor Statistics](#), the national median salary for these roles is over \$53,470.

The IT Support Professional Certificate, developed by Google and hosted on the Coursera online learning platform, can help people prepare for entry-level jobs in IT support in less than 6 months. No experience is necessary. For information about how this certificate differs from other IT certificates, [click here](#) to read more on page 18.

**The certificate consists of these five required courses:**

**Course 1: Technical Support Fundamentals**

**Course 2: The Bits and Bytes of Computer Networking**

**Course 3: Operating Systems and You: Becoming a Power User**

**Course 4: System Administration and IT Infrastructure Services**

**Course 5: IT Security: Defense Against the Digital Dark Arts**

Through a dynamic mix of video lectures, quizzes, and hands-on labs and widgets, the courses introduce learners to troubleshooting, customer service, networking, operating systems, system administration, and security. Along the way, participants will hear from Google employees with unique backgrounds and perspectives who started their careers in IT support.

The average person can complete the certificate in less than six months, assuming a five-hour-per-week time commitment. It is also possible for people with some previous experience in IT to skip content they already know and jump ahead to the assessments. Upon completion of each course, learners earn course completion badges that they can display on their LinkedIn profiles. Those who earn the certificate also receive a Google IT Support Professional Certificate badge.

People who complete the full course can choose to share that information with top employers, including Bank of America, Cognizant, GE Digital, H&R Block, Hulu, Infosys, Intel, Kforce, MCPc, PNC Bank, RICOH USA, Smucker's, Sprint, TEKSystems, The Home Depot, UPMC, Veterans United Home Loans, Wyndham Hotels & Resorts, Walmart and their companies: Allswell, Bonobos, Hayneedle, Jet, Modcloth, Moosejaw, Sam's Club, Shoes.com, Store No. 8, Vudu and of course, Google.

## OFFERING THE CERTIFICATE

Organizations that offer the Google IT Support Professional Certificate have flexibility in how they implement the program and present the coursework, but they all must engage in three core activities: participant recruitment, instruction, and participant support.

### Participant Recruitment

Organizations that offer the Google IT Support Professional Certificate should make an effort to recruit participants by identifying and reaching out to people who are likely to be willing and able to successfully complete the certificate coursework. Potential candidates include people who have shown an interest in IT and may be inclined to seek careers in IT support, and who also exhibit qualities that indicate that they would persevere in the certificate coursework.

Here's a more detailed rundown of some of the traits of people who are ready to begin:

- A good understanding of the time required for study, assessments, and projects (at least five hours per week for less than six months).
- An interest in the field of IT, and possibly past experience tinkering with computers and other technical equipment.
- Access to a broadband Internet connection some of the time, either at home or through a public network or a shared computer.
- Self-motivation, as exhibited by a track record of carrying out the plans they make, or a willingness to stay in regular contact with employees of the training organization who might check in with them.

- Basic English language and math skills, or access to resources, such as tutoring or remedial classes, that can help them improve those skills.

Recruitment strategies are typically most effective when they complement an organization's existing interactions with current and potential participants. Here are some questions to consider when planning your recruitment activities:

1. How does our organization usually communicate with participants?
  - a. Word of mouth
  - b. Posters
  - c. Webinars
  - d. In-person info sessions
  - e. Conferences or other types of meetings and get-togethers
  - f. Email
  - g. Social media
  - h. Text messaging
  - i. Radio ads
2. *Why* do individuals interact with your organization?
3. Which groups of our participants would be the best fit for this program? Can we develop a candidate profile, or profiles, of likely participants? We could consider people in the following categories:
  - a. Young people
  - b. More seasoned workers (aged 50-plus)
  - c. English language learners
  - d. Military veterans
4. Are there special events or times of the year when we have contact with a larger number of our participants than usual?
5. Are there partner organizations in our community that might help with recruitment, such as schools, churches, neighborhood groups, or community-based organizations?

6. How can we identify and reach out to individuals who would be successful in IT but might not be thinking about IT careers?

Compelling and targeted messages will interest participants and motivate them to learn more about the program. Below are some ideas for you to draw upon as you craft your messaging.

Message	Examples
<p><b>Completing the certificate means access to IT support jobs.</b></p>	<p>IT support is a fast-growing field, and the national median salary is over \$53,470 according to the Bureau of Labor Statistics.</p> <p>Google has commitments from large U.S. employers to review the credentials of certificate completers and consider them for potential employment.</p>
<p><b>The certificate content is accessible to people who don't have backgrounds in IT.</b></p>	<p>You can complete the certificate in less than 6 months studying part time (5 hours per week).</p> <p>You can skip content that you already know and go right to assessments.</p> <p>Certificate content is available 24/7 through the Coursera platform. It is also downloadable for offline access later (with the exception of labs, which must be completed online).</p> <p>If you choose to pursue the certificate in an in-person program through a nonprofit organization or a community college, instructors can provide additional academic support to help you complete the coursework.</p>
<p><b>The certificate is high quality.</b></p>	<p>Google developed the certificate classes based on its own training program for IT support professionals.</p> <p>Certificate courses consist of a dynamic mix of video lectures, quizzes, and hands-on labs and widgets that allow participants to practice what they're learning.</p> <p>The certificate program features college-level content. Some participating community colleges have begun to incorporate the certificate into their credit offerings.</p>

As part of an effort to increase access to IT jobs for individuals from demographic groups that are not well represented in the IT field, it can be useful to conduct a focus group with current or potential participants to help ensure that the outreach is interesting and culturally relevant. As

your certificate program gets underway, consider involving actual participants and completers from your organization in outreach efforts.

In many cases, recruitment requires an ongoing effort to raise awareness among potential participants, cultivate interest among those who follow up, and secure commitments from those for whom the program is a good fit for their needs and interests. An organization will often have to make contact with many potential participants to get a small number of enrollments. The recruitment process can resemble a funnel, with wide communication and outreach at the top yielding narrower streams of enrollments at the bottom.

It is also a good practice to keep records of recruitment activities to understand which strategies work best. Those records should emphasize the efforts that have yielded the most enrollments of people who are members of priority groups. You can assess the success of a particular outreach effort by calculating its “yield ratio”—the relationship between the number of outreach contacts, enrollments, and certificate completions. The higher the yield (enrollments and completions), the more effective the outreach effort. The most effective practices will differ depending on the organization and the population it serves.

## **Instruction**

The Google IT Support Professional Certificate is flexible, and organizations can take a number of approaches to offering the coursework and assessments. Schools, nonprofits, and other groups interested in providing the certificate are encouraged to identify the approach to instructional design that works best for them, based upon their current programming, the academic and non-academic supports they offer, and the training and expertise of their instructors and other staff members. This section of the guide describes the three instructional models that are most commonly used to present the Google IT Support Professional Certificate: live instructor, online learning, and blended learning.

### ***Live Instructor***

In this approach, a provider offers the certificate courses in a live classroom environment, with an instructor leading groups of learners through the content. Because it is traditional and cohort-based, this approach requires educators to spend time creating lesson plans—the Coursera platform just functions as a complementary resource both during and outside of class. Instructors may also choose to supplement the certificate content with additional resources, lab activities, or lectures. Some organizations using the live instructor approach even embed the certificate material into existing IT training courses, sometimes replacing previously used material with certificate modules.

**The live instructor approach is generally most effective for organizations with the following characteristics:**

- Sufficient staff capacity to support a regular schedule of instruction.
- Existing IT course offerings that align (or could align) with the certificate content.
- The ability to offer learner services on a set schedule.
- A clientele made up of people who are all at the same general skill level.

### **Challenges and Potential Solutions for Using the Live Instructor Approach**

<b>Challenge</b>	<b>Solutions</b>
<p><b>Because live instruction must be offered on a set schedule, fewer people may be able to participate.</b></p>	<p>Look for opportunities to provide onboarding or supplemental activities to new participants who sign up between program cycles.</p> <p>Depending on your organization’s participant profile, consider offering short, targeted sessions on employability skills, supplemental instruction in math or reading, or a broader introduction to IT career pathways. Such sessions may be valuable to certain participants because they can help build rapport within a cohort of learners in the lead-up to the start of formal programming, while also providing participants with skills and insights that will help them later when they are studying for the certificate itself.</p> <p>Create a class schedule with multiple levels of coursework offered concurrently. Such a setup can maximize the number of entry points for new learners.</p>
<p><b>A traditional class structure might prevent students from accelerating past content they already know.</b></p>	<p>Consider running a staggered class schedule (i.e., offering multiple levels of coursework at the same time). This setup would allow people who already understand the material in one class to move into more advanced classes after completing the assessments for earlier classes.</p> <p>When appropriate, give advanced learners an opportunity to demonstrate their mastery of certain material by participating in the planning and delivery of instructional activities.</p>

<p><b>Setting a standard pace of progress could prevent learners with complicated lives from completing modules, because those who fall behind may struggle to catch up.</b></p>	<p>Offer tailored support, including tutoring, to help struggling learners get back on track.</p> <p>Provide informal opportunities for students to receive support during instructor office hours, lab time outside of class, or special “catch-up” sessions built into the class schedule.</p>
<p><b>Learners may not relate to their instructors or their communication styles.</b></p>	<p>Solicit feedback from learners about their preferred learning styles, and, when feasible and appropriate, vary the instructional approach to suit their preferences.</p>
<p><b>A new learning program led by live instructors might be costly to operate.</b></p>	<p>Consider integrating the certificate content into existing courses.</p>

### Live Instructor Case Study: Kiron Open Higher Education

In Berlin, Germany, [Kiron Open Higher Education](#) is offering classroom instruction in the Google IT Support Professional Certificate to the people it serves, many of whom are refugees. Kiron tutors work with learners in person to help them master the critical skills required to pass all five courses. Classes are held in the evening, with Kiron learners doing some study on their own time.

This approach works for the students, who benefit from learning alongside their peers. The live classroom setting allows for learners to share knowledge with one another. Kiron even hosts “catch-up nights,” where participants who have experienced interruptions in their pursuit of the certificate can come in to take part in special sessions designed to help them get back on track.

Kiron also [recruited volunteer tutors](#) to help students during a summer session, providing an example of how organizations could use alternative staffing models to increase their instructional capacity and offer extra support to learners.

### *Online Learning*

Because the Google IT Support Professional Certificate is offered on the Coursera platform, it is possible to offer a completely online learning experience to people interested in pursuing the certificate. Organizations that take this approach invite students to participate in the certificate courses without any in-person instruction. While it’s possible to let students study the material completely on their own, the provider organization may choose to have instructors facilitate the

online lessons or provide other types of assistance to the students, and learners generally do best with some supports.

**An online approach is most effective for organizations with one or more of the following characteristics:**

- A large geographic service area and a clientele made up of people who are spread out across an expansive region—one that may encompass multiple states or even the entire country.
- A focus on serving rural populations.
- Strong partnerships with organizations that can offer supplemental instructional supports, such as tutoring or technical literacy coaching, when it's not feasible to have live instructors lead classes or facilitate online sessions.
- A desire to serve more independent learners or people with prior IT experience from, say, a job or military service.
- Little experience or expertise in offering instructional services to students.

**Challenges and Potential Solutions for Utilizing an Online Learning Approach**

Challenge	Solutions
<p><b>Ongoing participant engagement and retention may be harder to ensure without regularly scheduled face-to-face meetings.</b></p>	<p>During the recruitment phase, make sure your messaging campaign is thorough, so that prospective participants get a comprehensive overview of the program and understand exactly what it will take to complete the certificate. Providing a list of answers to frequently asked questions will help. Consider hosting an online launch event such as a webinar or a Q&amp;A session.</p> <p>Remind learners that they can accelerate through content that they already know by skipping to the assessments.</p> <p>Offer additional supports to learners, such as online office hours.</p> <p>If learners are having trouble moving through the curriculum, follow up with them individually to try to understand the challenges they are encountering.</p>

<p><b>Learners may not build the natural peer community that can come with an in-person cohort.</b></p>	<p>Set up online forums, such as discussion boards or private social media groups, that students can use to communicate with one another and form virtual peer support networks.</p> <p>Host live online events via Google Hangouts to give learners a chance to connect. You could use the events to provide supplemental training or lead presentations about topics such as résumé development or opportunities in the IT field.</p>
<p><b>Learners may not know where to look for support in their job searches after they have earned their certificates.</b></p>	<p>Encourage learners to complete the final Coursera survey and share their qualifications with Google's employer partners.</p> <p>Refer people who successfully complete the certificate to their local American Job Center offices for employment services.</p> <p>Reach out to employers that are having trouble filling IT support jobs to make them aware of the program and encourage them to hire people who hold the certificate.</p>

### **Online Learning Case Study: Student Veterans of America**

[Student Veterans of America](#) is a 501(c)(3) coalition of groups on college campuses whose members are military veterans who are pursuing higher education as they transition to civilian life. A global organization, SVA has chapters throughout the United States and in other countries, and its members are enrolled in just about every type of postsecondary institution. Those chapters are student-led. As a membership organization primarily focused on supporting students (by offering scholarships, among other activities), research, training, and national advocacy, SVA does not typically have a role in academic or technical teaching and learning. Online learning programs are a good fit for SVA.

SVA members can enroll in the Google IT Support Professional Certificate program via an application on the organization's website, which offers comprehensive information about the certificate. Selected participants are enrolled in cohorts, and they take a self-directed approach to completing the coursework. SVA employees monitor student progress and host occasional webinars for each cohort.

### ***Blended Learning***

Blended learning is a flexible design that combines in-person instruction with online learning. There are several options for implementing a blended learning approach, including these:

- The traditional approach, where instructors conduct classes and present some content in person, and assign other content and assessments for homework.
- The flipped classroom model, where students work through online content at home and class time is used for practice and projects.
- The flex model, where a classroom operates more like a lab, with instructors providing just-in-time support to students as they work through material at their own pace.
- The à la carte approach, where students rarely come together in a physical classroom and a remote facilitator engages learners using online tools.

These models can also be mixed and matched depending on the provider's resources and the needs and assets of learners.

**A blended learning approach is often most effective in scenarios such as the following:**

- An organization would like a high degree of flexibility in the way it implements the program, perhaps because it works with multiple partners to offer the certificate and each provider must be able to choose its own ideal mix of personnel, classroom space, and other resources to devote to the program.
- A provider serves participants in person at least some of the time but may only have limited access to classroom space.
- Instructional staff members are comfortable playing coaching roles or providing just-in-time support to learners.
- The people served by the organization aren't able to be available on a regular schedule.

**Challenges and Potential Solutions for Utilizing a Blended-Learning Approach**

Challenge	Solutions
<p><b>It may be difficult to maximize peer learning while allowing individual participants to set their own individual paces.</b></p>	<p>When appropriate, create opportunities for learners to support one another by putting them into groups based on the course or assignment they are working on.</p> <p>Enlist advanced learners to help with class activities.</p>

<b>Instructors may not be familiar with how to deliver flexible or “flipped” classroom designs.</b>	Offer instructional staff members some professional development, either in person or online.
<b>Students may not be able to build the strong learning communities that can come with frequent in-person interactions.</b>	Use Google’s <a href="#">G Suite</a> online communication tools to give instructors and other staff members a way to stay in touch with learners regardless of how often they come into the classroom.  Encourage instructors to use class assignments or online office hours to get to know every learner.

### **Blended Learning Case Study: Partner4Work**

Pittsburgh-based [Partner4Work](#) offers the Google IT Support Professional Certificate to young people at two partner sites. One of the sites utilizes a blended learning approach where students work on the certificate online at their own pace but also come in to receive support from instructors during office hours. Program employees also monitor the progress learners are making and reach out individually to offer coaching.

This approach works well for the learners at that particular site because they are juggling work, education, job training, and family obligations, and have many competing demands on their time. The ability to ease off their pursuit of the certificate when life gets complicated, or accelerate their studies when their schedules are free, makes it easier for them to stay on track.

This approach also benefits Partner4Work by enabling the organization to be flexible about the way it schedules its instructional staff and uses its computer facilities. With the blended approach, Partner4Work can also offer assistance to certificate learners by co-enrolling them in other programs through which they might receive valuable supports such as transportation vouchers. Moreover, a program design that is based on learners largely taking a self-directed approach but seeking support when they need it helps those learners build key employability skills such as the ability to solve problems and communicate effectively.

### **Participant Support**

Promoting successful learning in the certificate courses means motivating and empowering participants and helping them overcome any barriers they encounter. Many people pursuing the certificate could face numerous challenges because they will be learning a new discipline. The good news is that providers have many tools and approaches at their disposal to support

success in the program. Investing in a support strategy tuned to the assets and needs of your participants—and your organization—will help ensure the greatest benefit for learners.

### *Know Your Learners*

Knowledge of the people your organization serves will allow you to build an effective support strategy. This means understanding not only the most common advantages and barriers facing individuals (and subgroups of individuals), but also the challenges that are likely to emerge throughout each phase of the program.

### **Participant Journey Maps**

Take some time to map the learner’s journey through the program and anticipate what supports your organization can provide at each stage. Involving learners themselves in this process can also yield important insights. The chart below offers examples of the challenges that might arise in three different categories, along with possible supports that you could offer to address them.

	<b>Enrollment</b>	<b>Retention and Completion</b>	<b>Employment</b>
<b>Challenges</b>	<p>Low knowledge of the field and/or the program.</p> <p>Limited sense of the time commitment required.</p> <p>Lack of confidence about their chances of success.</p>	<p>Family emergencies.</p> <p>Content becomes overwhelming.</p> <p>Changes in schedule, housing, child care, etc.</p>	<p>Job search feels daunting.</p> <p>Unfamiliar with workplace norms or expectations.</p> <p>Difficulty finding appropriate opportunities.</p>
<b>Supports</b>	<p>Schedule an orientation session where new participants can meet with people who previously completed the certificate.</p> <p>Use tools such as a <a href="#">weekly planner</a> to map out work, study, and family obligations.</p>	<p>Monitor progress.</p> <p>Use flexible pacing to allow for temporary slowdowns when life gets complicated.</p> <p>Make plans to help those who fall behind get back on track.</p>	<p>Encourage people who earn the certificate to send their profiles to partner employers and display their completion badges on their LinkedIn profiles.</p> <p>Conduct résumé workshops and mock interview exercises.</p> <p>Connect learners to partner organizations to</p>

	Offer coaching and encouragement.	Celebrate milestones.	help them master job transition skills.
	Build a learner community and foster group norms.	Provide support services directly or through partnerships.	Create job search peer groups.
	Work with each learner to put goals in writing.	Arrange internships or career exposure events.	

Mapping the learner's journey is a proactive way to support participants even in a flexibly paced program. Maps can be as broad as the example above, or they can go into detail about the unique challenges of each of the five required courses. It can be helpful to update the maps from time to time as challenges and supports change.

### *Get Creative with Staff Roles: Coaching and Advising*

Your approach to supporting learners will depend on the resources that your organization can devote to the effort, but having some employees who are committed to student support will improve the chances of success.

Proactive coaching has proved to be one of the most effective strategies for helping learners succeed in and out of the classroom. Even instructors can be coaches, and it is often helpful to arrange for staff members to support learners in specialized roles such as these:

- **Individual success coaches** who work with a “caseload” of learners from the time they start the certificate program to the time they finish. Among other things, success coaches might coordinate peer support activities.
- **Academic support coaches** who are only responsible for providing learners with just-in-time skills assistance.
- **Career coaches** who may arrange mock interviews, connect learners to job opportunities, and help them prepare their résumés and LinkedIn profiles.
- **Partnership liaisons** who maintain contact with partner agencies that may be providing learners with various types of assistance to help them succeed.

Regardless of the shape the support team takes, coaches and advisors should keep the following foundational principles in mind when working with learners:

1. **Be proactive:** Use tools like the Coursera dashboard or pace charts to anticipate problems that a learner or group of learners might encounter, and reach out to offer assistance to anyone who looks to be at risk of going off track. Be transparent and show learners the information you are using to assist them. Co-create the tools for their success alongside them.
2. **Build relationships:** Take advantage of one-on-one meetings during office hours, peer-group get-togethers, and other low-stakes activities to get to know your learners and build trust so that they know to reach out when they have difficulty.
3. **Celebrate success:** As a member of the support team, you have an opportunity to do much more than fix problems. Commemorate milestones with celebrations, post lists of successful students online or on a bulletin board in the center, or create an awards program to recognize students' achievements.
4. **Be persistent:** Learners have differing communications styles, so make an effort to reach out to them through multiple channels, including email, social media, the Coursera platform, and even text messages. Technology platforms like [Persistence Plus](#) and [Remind](#) support digital outreach on a wider scale.
5. **Enlist the help of others:** One-on-one coaching is great, but you don't have to go it alone. Often what people need is peer support, so creating opportunities for learners to engage with one another in groups or in pairs can be very effective. So can empowering advanced learners by offering them leadership responsibilities. You may also want to build partnerships with outside providers to expand the supports available to your organization's learners.

Consider the culture that you want to build around the program, and create your own support principles and philosophy. The more this culture is relevant to the people you serve, the more effective it will be in keeping them motivated and on track.

### *Build Partnerships to Support Success*

No single organization can do it all. Utilize existing partnerships or create new ones to ensure that learners get the support they need throughout the program.

A good practice is to create a participant journey map (described above) and then highlight areas where your organization might partner with another community-based group or public agency. For example, if your organization is a workforce training agency, you could reach a wider range of learners by partnering with an English language education center, or you could create a referral relationship with a nearby provider of behavioral health services to connect students with a resource that can help overcome some of the challenges they are facing.

It's important to remember that the journey will continue for people after they earn the certificate, so think about the supports that could help learners at that stage, including housing, transportation, and mental health benefits. If those types of assistance aren't available through your organization, look into establishing referral relationships with relevant agencies, so you can share information about available services with your participants. Many city or county governments maintain directories of such services (here's an [example](#) of such a list).

When you find ways to help ensure that learners' needs are met, it will be much easier for them to succeed in your certificate program.

## **FREQUENTLY ASKED QUESTIONS**

### **Why did Google create this program?**

Google has long faced a staffing problem that many other companies also contend with—difficulty finding qualified candidates to fill open IT support roles. A few years ago, in an effort to solve that problem, the company began working with a nonprofit organization to develop training programs and pathways to careers in technical support at Google. As part of that process, Google officials learned that IT support is a highly teachable discipline, and that it takes less than 6 months to teach the fundamentals of tech support to someone who is completely new to IT. Google then decided to make the training available to everyone by developing an IT support course for the Coursera online learning platform. The result is the Google IT Support Professional Certificate program, which was created entirely by Google employees who are experts in IT support.

### **What is IT support?**

Companies rely on technology to keep their operations up and running, but sometimes technical systems stop doing what they're supposed to do—computers break, systems fail, phones die. When that happens, companies need experts to fix their systems. Those experts work in IT support, which is all about troubleshooting and problem solving, with the goal of getting systems up and running again; it's also about providing great customer service along the way.

### **What are the required reading and math levels for participants?**

Google hasn't determined this. Each organization interested in offering the Google IT Support Professional Certificate can determine the level of foundational skills it will require participants to have. Several nonprofit organizations have welcomed English language learners into certificate programs.

### **Does the certificate program include any hands-on work?**

The curriculum does include many hands-on activities. There are also four peer-reviewed assignments, including a project plan, a consultation exercise, and a description of a network model, that are assessed based upon an instructor-created rubric. Participating organizations are encouraged to add additional hands-on or lab work for participants, as appropriate.

### **How did Google develop this content? What subject matter experts participated?**

Google began with the curriculum that it uses to train its own IT support staff, and then conducted a lengthy and comprehensive development process that involved gap analysis, industry participation, and intentional program design. More information is available in a January 16, 2018, post on the Grow with Google blog titled "[A new pathway to roles in IT support.](#)"

### **How does this certificate compare to A+, CCENT, CCNA, Security+, and others? Where does it fit in?**

This five-course certificate, developed exclusively by Google, is focused on IT generalists. Its innovative curriculum is designed to prepare people for entry-level roles in IT support. The curriculum for the certificate is broad and aims to introduce learners to a range of topics relevant to IT support roles using hands-on assessments. In contrast, most other IT industry certificates build more specific and advanced skill sets for specialized roles (such as jobs in networking) and may not include as much hands-on work as the Google IT Support Professional Certificate.

The Google IT Support Professional Certificate program aligns with the objectives covered by the newly updated [CompTIA A+](#) certification. Upon completion of the certificate program, learners can download the CompTIA A+ [exam objectives](#) to ensure that they've studied everything before taking the exams.

If learners complete all five courses of the certificate *and* pass the CompTIA A+ certification exams (1000 series), they'll have access to a new dual badge from CompTIA and Google that they can also post on LinkedIn to catch the attention of potential employers. Learn more [here](#).

### **How many hours will it take a participant to complete the courses?**

The Google team estimates that students can complete the certificate coursework in less than 6 months if they spend 5 hours per week working on the material.

### **Do I need to take the courses in a specific order?**

Google highly recommends taking the courses in the order presented, because the content builds on information from earlier lessons.

### **Are providers required to engage in outreach efforts to recruit and enroll participants?**

Yes. Enrollment is a core activity of the project for participating organizations.

**Are the courses competency-based (i.e., flexibly paced)?**

Yes. It is possible for students to accelerate through the curriculum and complete the certificate in less than the estimated six months. However, students must maintain a minimum level of activity to remain “active” in the certificate program.

**Can students retake assessments if they are not successful on the first try? If so, how many times?**

Yes. Students can retake lab assessments up to 10 times.

**Can we use the Google IT Cert videos in existing courses?**

Yes, as long as students access the videos through the Coursera platform.

**What is the nature of Google’s employer engagement efforts? Have any companies agreed to hire certificate holders?**

Google is engaged in an ongoing effort to reach out to large U.S. employers to make them aware of the certificate program. Thus far, about a dozen well-known employers have made commitments to consider hiring people who earn the Google IT Support Professional Certificate. The list includes Bank of America, Cognizant, GE Digital, H&R Block, Hulu, Infosys, Intel, Kforce, MCPc, PNC Bank, RICOH USA, Smucker's, Sprint, TEKSystems, The Home Depot, UPMC, Veterans United Home Loans, Wyndham Hotels & Resorts, Walmart and their companies: Allswell, Bonobos, Hayneedle, Jet, Modcloth, Moosejaw, Sam’s Club, Shoes.com, Store No. 8, Vudu and of course, Google.

**What SOC codes or occupations are associated with this certificate?**

The certificate is designed to prepare students for jobs defined as Computer User Support Specialists under the Standard Occupational Classification system maintained by the Bureau of Labor Statistics. The computer user support specialist role (SOC 15-1151) is a high-demand, high-growth IT occupation, with over 150,000 job openings. People who work as computer user support specialists often have job titles like IT specialist, desktop support specialist, help desk technician, and help desk analyst.

**Are the people who complete the certificate considered generalists or specialists?**

The Google IT Support Professional Certificate is meant to provide broad familiarity with the IT support field and give people the foundation they need to fill entry-level roles.

**Do participants choose which employers review their information?**

Yes. Students are able to choose which employers view their credentials in the post-completion survey.

**Can we get local employers involved?**

Yes! Organizations are encouraged to integrate the employer engagement efforts they undertake as part of their certificate programs with their broader employer-focused initiatives, including employer advisory boards.

**What does the program cost?**

Coursera offers several pricing options for organizations and individuals interested in accessing the Google IT Support Professional Certificate curriculum. Access to the materials is available for \$49 per month per learner, or \$400 per learner for 12 months of unlimited access to courses when enrolling a group or cohort. Interested parties are encouraged to contact Coursera directly for more information on pricing and potential volume discounts.

Google created the IT Support Professional Certificate as part of an initiative to diversify the IT talent pipeline and expand opportunities for underrepresented learners to enter this high-demand field. Google does not receive any profit from this initiative.

## **COURSE DESCRIPTIONS**

**Course 1: Technical Support Fundamentals**

In this course, learners are introduced to the world of information technology, or IT. Participants will learn about the different facets of IT, like computer hardware, the Internet, computer software, and job-related skills. They will also learn about the history of computers, and the pioneers who shaped the world of computing that we know today. This course covers a wide variety of topics, and it is designed to give an overview of what's to come in the Google IT Support Professional Certificate coursework.

People who complete this course will be able to do the following:

- Understand how the binary system works.
- Assemble a computer from scratch.
- Choose an operating system and install it 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 inside computers.
- Utilize common problem-solving methods and soft skills in an IT setting.

## **Course 2: The Bits and Bytes of Computer Networking**

This course is designed to provide a full overview of computer networking. It covers everything from the fundamentals of modern networking technologies and protocols to practical applications and network troubleshooting.

People who complete this course will be able to do the following:

- 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.

## **Course 3: Operating Systems and You: Becoming a Power User**

In this course, participants will learn how to use Windows and Linux, two major operating systems that are core components of IT infrastructures. Through a combination of video lectures, demonstrations, and hands-on practice, students will become familiar with the main components of an operating system and how to perform critical tasks like managing software, managing users, and configuring hardware.

People who complete this course will be able to do the following:

- Navigate the Windows and Linux file systems using a graphical user interface and a 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 file systems.
- Understand how system processes work and how to manage them.
- Work with system logs and remote connection tools.
- Utilize their knowledge of operating systems to troubleshoot common issues in an IT support specialist role.

## Course 4: System Administration and IT Infrastructure Services

This course will transition learners from working on one computer at a time to working with a whole fleet of computers. Systems administration is the field of IT that's responsible for maintaining reliable computer systems in multi-user environments. In this course, participants will learn about the infrastructure services that keep all organizations, big and small, up and running. Topics include how to manage and configure servers, and how to use industry tools to manage computers, user information, and user productivity. Finally, the course will explain how to recover an organization's IT infrastructure in the event of a disaster.

People who complete this course will be able to do the following:

- Utilize best practices for choosing hardware, vendors, and services for an organization.
- Understand the most common infrastructure services that keep an organization running, how they work, and how to manage infrastructure servers.
- Manage an organization's computers and users using the Active Directory and OpenLDAP directory services.
- Choose and manage the tools that an organization will use.
- Back up an organization's data and recover IT infrastructure in the event of a disaster.
- Utilize systems administration knowledge to plan and improve processes for IT environments.

## Course 5: IT Security: Defense Against the Digital Dark Arts

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, and then discusses encryption algorithms and how they're used to safeguard data. From there, the course dives into the "three A's of information security"—authentication, authorization, and accounting. It also covers network security solutions, ranging from firewalls to Wi-Fi encryption options. The course then pulls the subject matter together with a look at how all of those elements can be incorporated into a multilayered, in-depth security architecture. It concludes with recommendations on how to foster a culture of security within a team or an entire organization.

People who complete this course will understand the following:

- How various encryption algorithms and techniques work, and their benefits and limitations.
- Various authentication systems and types.

- The difference between authentication and authorization.

At the end of this course, learners will be able to do the following:

- Evaluate potential risks and recommend ways to reduce risk.
- Make recommendations about how best to secure a network.
- Help others to understand security concepts and protect themselves.

# MORE RESOURCES

## From Google

- [Grow With Google](#)
- [G Suite Learning Center](#)
- [G Suite for Education](#)

## From Coursera

- Coursera's [Flipped Classroom Field Guide](#)
- Coursera for [Governments and Organizations](#)

## From JFF

- Students at the Center: [Resources for Educators](#)
- Next-Generation CBE: "[Supporting Success for Underprepared Learners](#)"
- "[Promoting Persistence Through Comprehensive Student Supports](#)"

## External Resources

- Pamela Hogle, "[Expert's Guide to Presenting Solo in a Virtual Classroom](#)," *Learning Solutions*, November 29, 2017
- Mike Gershon, "[Classroom Questioning: How to Ask Good Questions](#)," *MikeGershon.com*, n.d.
- Blended Learning Universe, [BlendedLearning.org](#)
- Edutopia, [Blended Learning](#) Resource Page, George Lucas Educational Foundation
- "[Best Practices for the Flipped Classroom](#)," *Hanover Research*, October 15, 2013
- Cynthia Brame, "[Flipping the Classroom](#)," *Vanderbilt University Center for Teaching*, 2013
- Mai, Swift, Wiggins, et al., "A Grounded Theory Approach on Team Communication and the Development of Professional Skills," *Frontiers in Education*, IEEE, 2011

- Geri Stengel, "[Nonprofit Collaborations: Why Teaming Up Can Make Sense](#)," *Forbes*, April 9, 2013
- "[TechHire Strategies to Foster Enduring Partnership and Collaboration](#)," Workforce GPS, U.S. Department of Labor
- Chicago Department of Family and Supportive Services, example city resource guide on supportive services: [Chicago](#)