

This is $(ISC)^2$



Largest nonprofit membership association of certified cybersecurity professionals



Work with businesses and governments to build certifications that meet market needs



Provider of lifelong professional education



Global advocate for ethics, growth and success of the cybersecurity profession

We also do other stuff



Security Congress



Secure Summits





Briefings



igs Think T



Think Tank Knowledge Vault















Accreditations, Recognitions and Endorsements







ASD Cyber Skills Framework































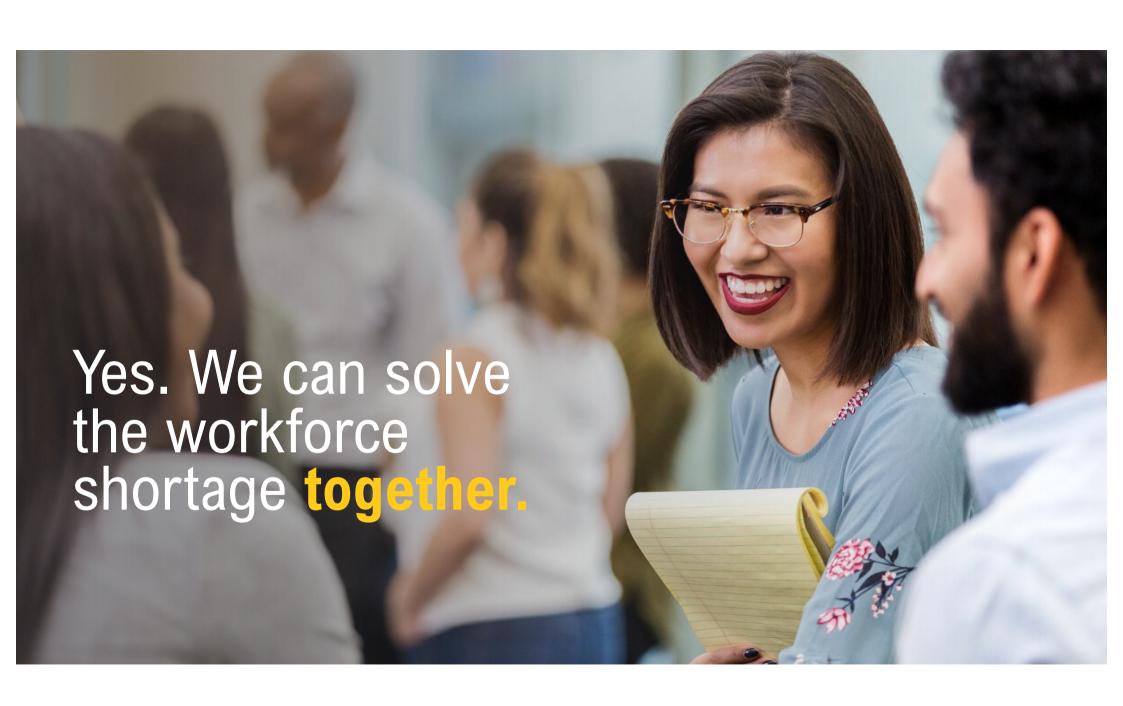






The Skills Gap





Keeping up isn't enough.

2020

Estimated Workforce **3.48M**

Gap **3.12M**

Needed Workforce **6.60M**

2021

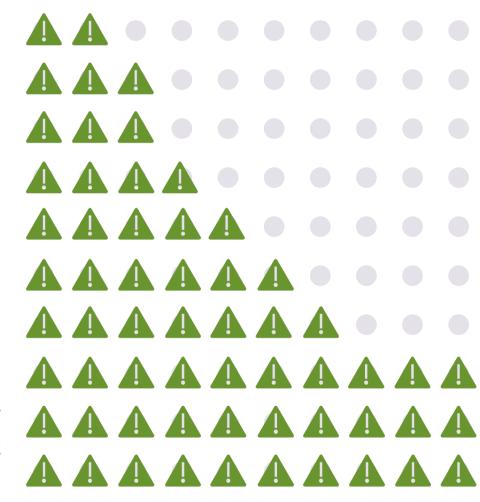
Estimated Workforce **4.19M**

Gap **2.72M**

Needed Workforce **6.91M**

65%

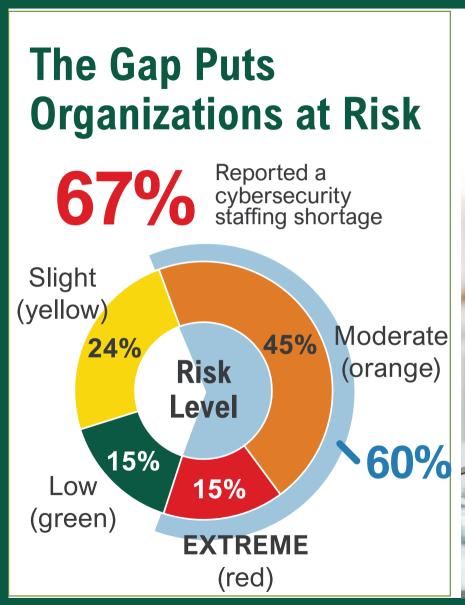
How much the cybersecurity workforce needs to increase to close the gap



60%

of study participants say
their organizations are at risk
due to staffing shortages

Footnotes & Sources Source: 2021 (ISC)² Cybersecurity Workforce Study

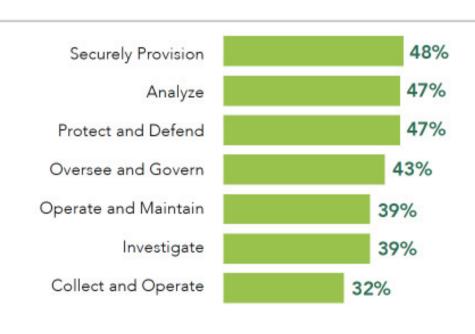




Despite another influx of **700,000** professionals into the cybersecurity workforce, the 2021 study shows that global demand for cybersecurity professionals continues to outpace supply

Cyber Staffing shortages by Function Area Worldwide

Real Consequences of Cyber Staff Shortages









28%
Oversights in process
and procedure



30% Not enough time for proper risk assessment and management



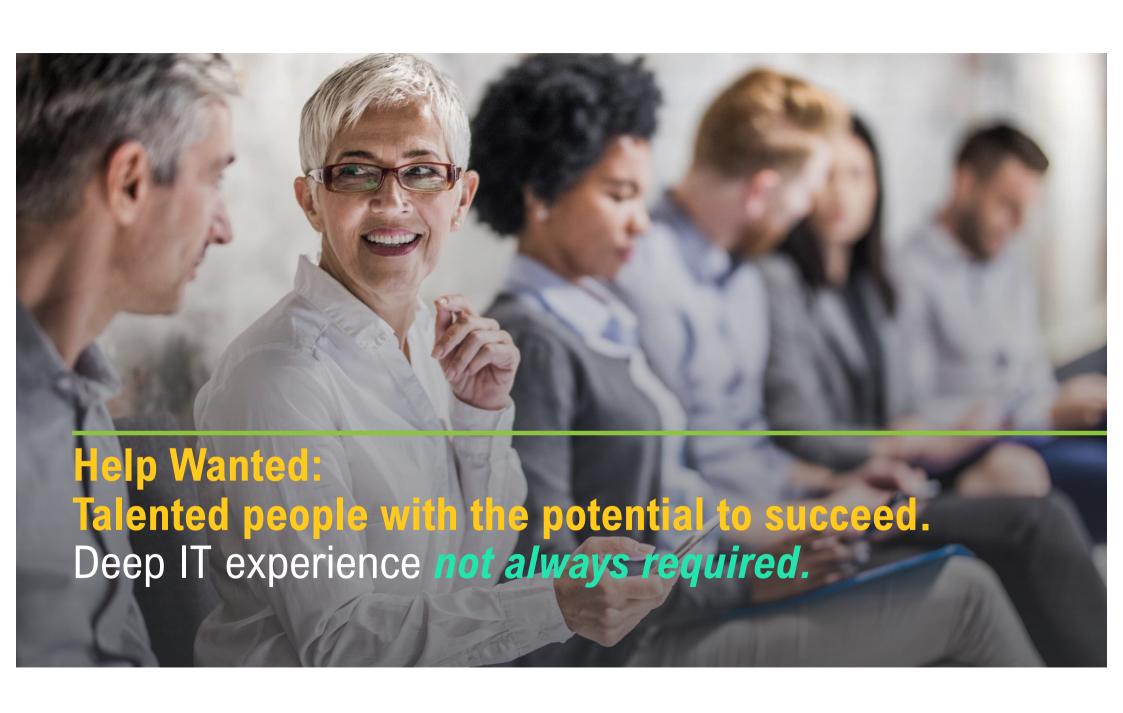
27% Inability to remain aware of all threats active against our network



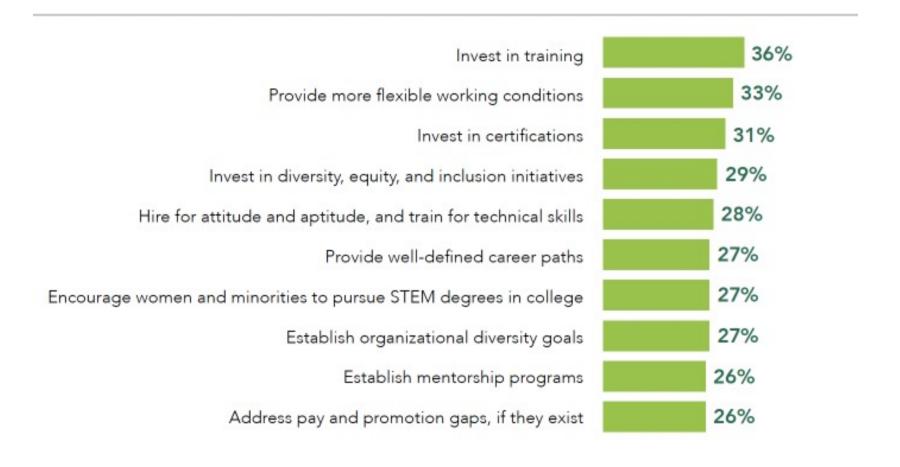
29% Slow to patch critical systems



27% Rushed deployments



Top People Investments Organizations are Making to Address the Workforce Gap



How Hiring Managers Develop Entry- and Junior-Level Staff



Benefit of Hiring at the Entry Level

Entry Level and Junior Cyber Security staff bring new perspectives, ideas, creativity, critical skills in new technologies, enthusiasm and reinvigorating energy.

How have entry- or junior-level cybersecurity team members helped your organization?

"They often bring an element of creativity and out-of-the-box thinking to the team."

Hire for aptitude and attitude. You can teach the rest.



34%
Analytical thinking



33% Problem solving



27% Critical thinking



24%
Ability to work in a team





19%
Ability to work independently



11%Data visualization



10%
Business acumen



Time and cost to get entry- and junior-level employees up to speed

37%

of cybersecurity hiring managers surveyed estimate entry- and junior-level professionals are considered "up to speed" after six months or less on the job.

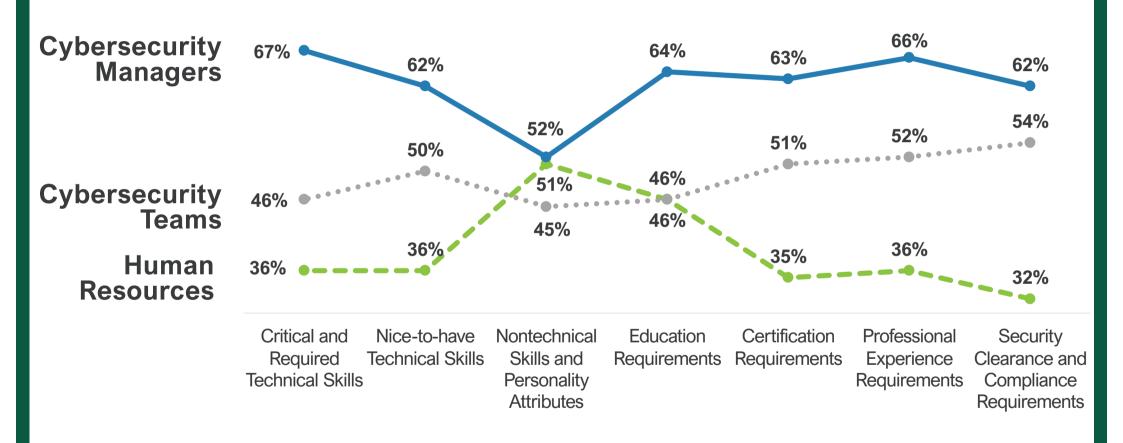
\$500-\$5,000

Cost to develop entry-and junior-level cybersecurity professionals

Source: 2022 (ISC)² Cybersecurity Hiring Managers Report

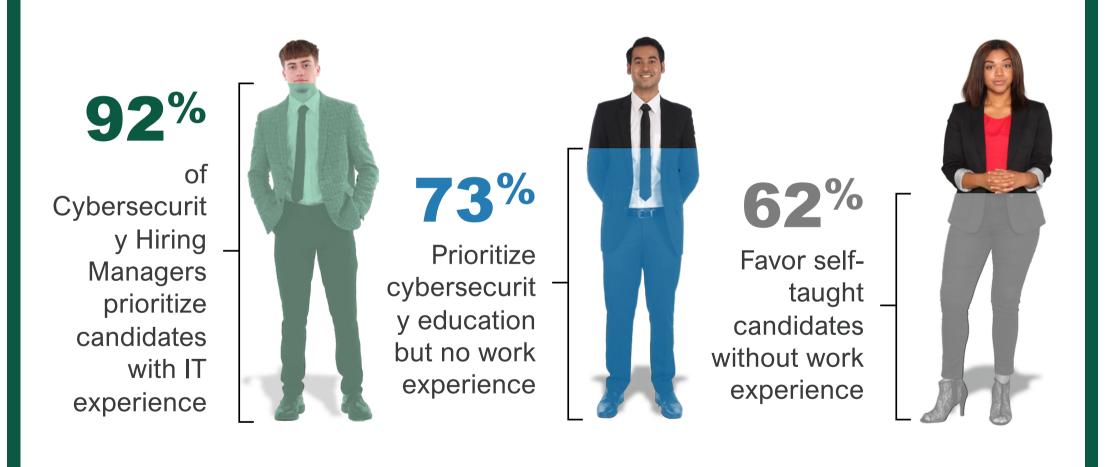


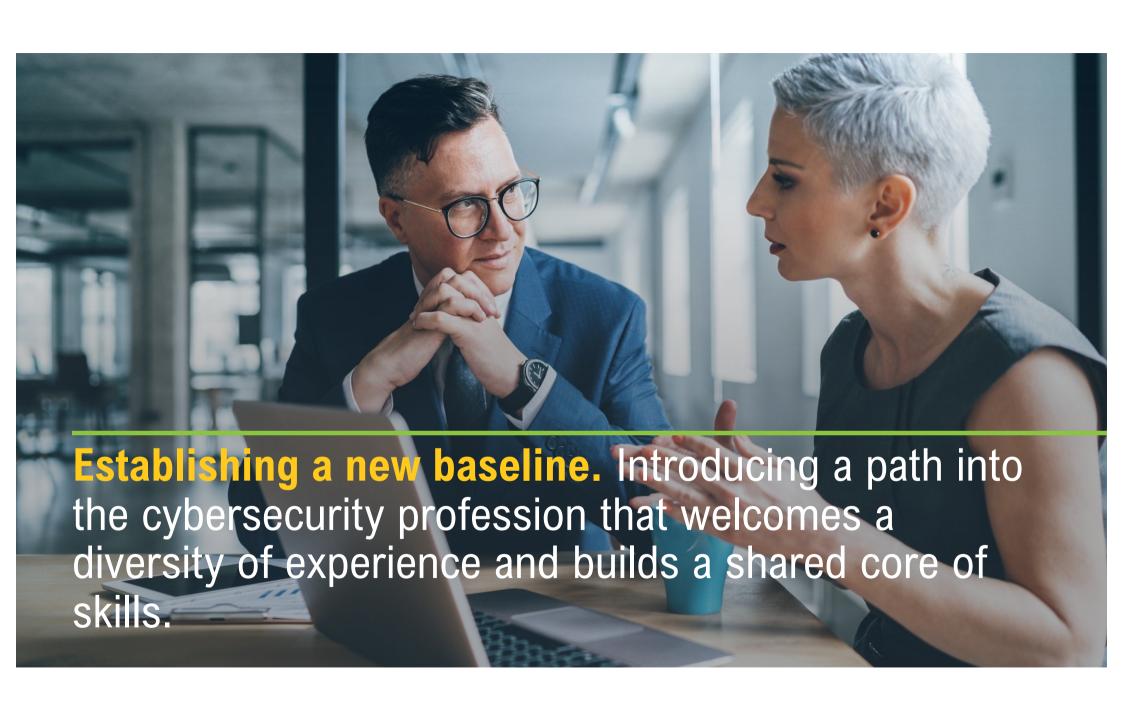
Who Takes the Lead?



Footnotes and source information goes here. Delete this text box if you're not using it.

IT Experience Not Always the Winning Attribute







Ideal for People Without Cybersecurity Work Experience

The CC proves to employers that you have the foundational knowledge, skills and abilities necessary for an entry- or junior-level cybersecurity role. It signals your understanding of fundamental security best practices, policies and procedures, and your willingness and ability to learn more and grow on the job.





The CC is ideal for students, incoming professionals and career changers to build confidence and enter their first cybersecurity role prepared for what's next.

IT Professionals

College Students

Advanced High School Students

Career Changers

Recent College Graduates

Recent High School Graduates



The broad spectrum of topics included in the CC Common Body of Knowledge (CBK®) ensures its relevancy across all disciplines in the field of information security. Successful candidates are competent in the following five domains:

Security Principles

Business Continuity
(BC), Disaster Recovery
(DR) & Incident
Response Concepts

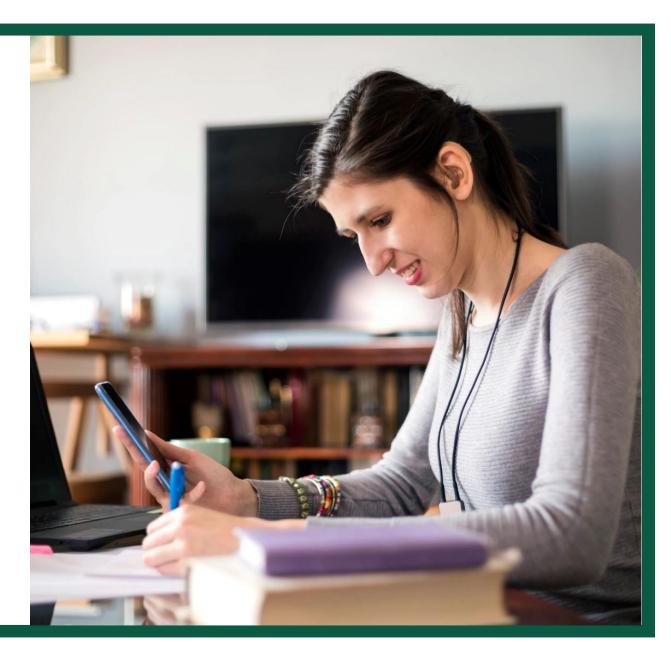
Access Controls
Concepts

Network Security

Security Operations

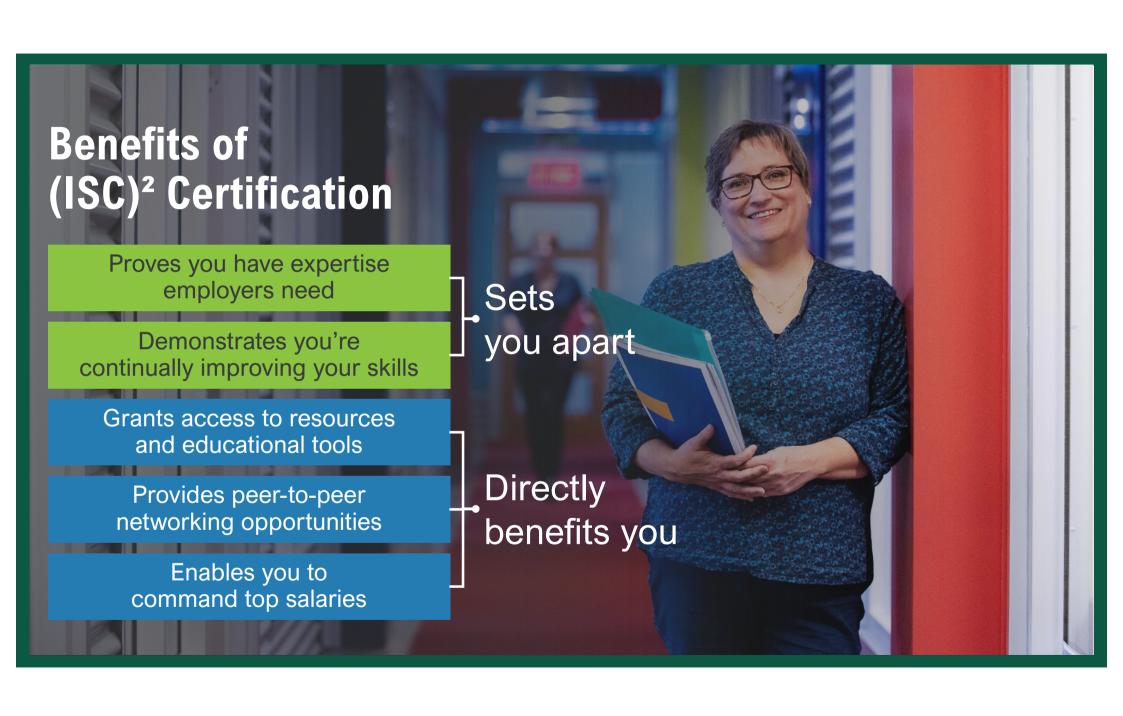


There are no specific prerequisites to take the exam. It is recommended that candidates have basic information technology (IT) knowledge. No work experience in cybersecurity or formal educational diploma/degree is required. If you're a problem-solver with an analytical mindset, entry-level cybersecurity certification is right for you.





https://www.isc2.org/landing/1MCC

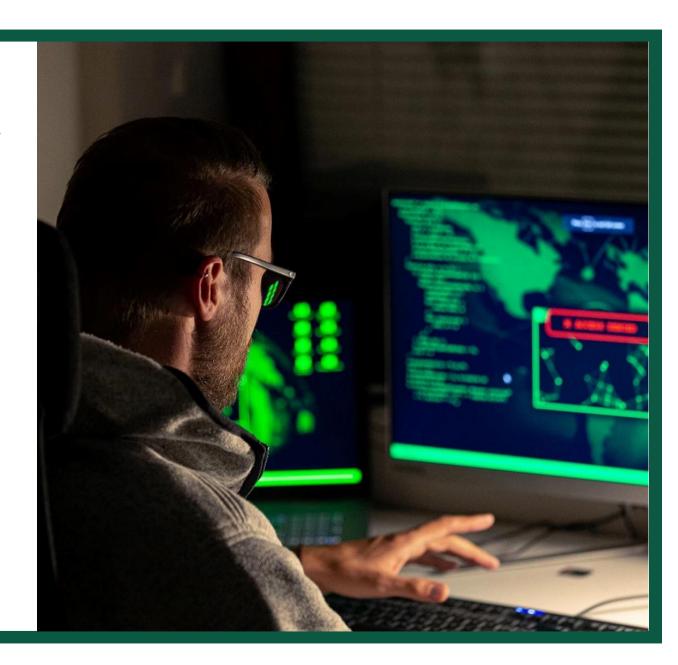




An (ISC)² Certification

Ideal for experienced security practitioners, managers and executives

Validates an information security professional's deep technical and managerial knowledge and experience to effectively design, engineer, and manage the overall security posture of an organization.



CISSP

Certified Information Systems Security Professional

An (ISC)² Certification

The CISSP is ideal for experienced security practitioners, managers and executives interested in proving their knowledge across a wide array of security practices and principles, including people in these positions.

Chief Information Security Officer

Chief Information Officer

Security Architect

Network Architect

Director of Security

Security Systems Engineer Security Analyst

IT Director/Mgr.

Security Auditor

Security Manager

Security Consultant



An (ISC)² Certification

The broad spectrum of topics included in the CISSP CBK ensures its relevancy across all disciplines in the field of information security. Successful candidates are competent in the following eight domains:

Security and Risk Management

Asset Security

Security
Architecture and
Engineering

Communication and Network Security

Identity and Access
Management (IAM)

Security
Assessment and
Testing

Security Operations

Software Development Security



An (ISC)² Certification

CISSP Experience Requirements

Candidates must have a minimum of five years' cumulative paid work experience in two or more of the eight domains of the CISSP CBK.1 Earning a four-year college degree or regional equivalent or an additional credential from the (ISC)² approved list will satisfy one year of the required experience.

Education credit will only satisfy one year of experience.

CISSP Concentrations



Certified Information Systems Security Professional

An (ISC)² Certification

ISSAP Architecture

ISSEP. Engineering ISSMP. Management





An (ISC)² Certification

ISSAP Architecture

Ideal for Chief Security Architects or Analysts

The Information Systems Security Architecture Professional (ISSAP) is a CISSP who specializes in designing security solutions and providing management with risk-based guidance to meet organizational goals. They facilitate the alignment of security solutions within the organization.





An (ISC)² Certification

ISSAP Architecture

The ISSAP is a CISSP who distinguishes in planning security solutions and offering management with risk-based guidance to achieve organizational goals. They are experts in promoting the alignment of security solutions within the organizational context, such as mission, vision, policies, strategy, change, requirements, and external factors.

System Architect

System and Network Designer

> **Chief Security** Officer

Chief Technology Officer

Business Analyst



An (ISC)² Certification

ISSAP Architecture

The broad spectrum of topics included in the ISSAP CBK ensures its relevancy across all disciplines in the field of information security. Successful candidates are competent in the following six domains:

Architect for Governance, Compliance and Risk Management

> **Identity and Access** Management (IAM) Architecture

Security Architecture Modeling

Architect for **Application Security** Infrastructure Security Architecture

Security Operations Architecture



CISSP-ISSAP Experience Requirements

Candidates must be a
CISSP in good
standing and have two
years cumulative paid
work experience in one
or more of the six
domains of the CISSPISSAP CBK



Ideal for Systems Security Engineering Professionals

Proves your ability in applying security engineering principles into the business processes you support.





Certified Information Systems Security Professional

An (ISC)² Certification

ISSEP. Engineering

The ISSEP is ideal for the CISSP who specialize in implementing systems engineering principles and methods to create a security system. The ISSEP wants to build on their expertise in information security engineering.

Senior Systems Engineer

Information **Assurance Officer**

Senior Security Analyst

Information Assurance Systems Engineer

Information Assurance Analyst



The broad spectrum of topics included in the ISSEP CBK ensures its relevancy across all disciplines in the field of security engineering. Successful candidates are competent in the following five domains:

Systems Security
Engineering
Foundations

Risk Management

Security Planning and Design

Systems Implementation, Verification and Validation Secure Operations, Change Management and Disposal



CISSP-ISSEP Experience Requirements

Candidates must be a
CISSP in good
standing and have two
years cumulative paid
work experience
in one or more of the
five domains of the
CISSP-ISSEP CBK.



Ideal for CIOs, CISOs, CTOs, and Senior Security Executives

Shows you excel at establishing, presenting and governing information security programs. You also demonstrate deep management and leadership skills whether you're leading incident handling and/or a breach mitigation team.





Certified Information Systems Security Professional

An (ISC)² Certification

ISSMP Management

CISSP-ISSMP certification is the executive's confirmation of network safety, which proves your skills to oversee, put forward, and set up data security outlines. Moreover, it helps to demonstrate your well-bred methodology in administration and the board's capabilities. As the name suggests, this certification incorporates zones of security arranging and task the board. The most well-known obligations of an ISSMP are to plan utility, response plans, and consistency.

Chief Information Officer

Chief Technology Officer

Chief Information Security Officer

Senior Security Executive



The broad spectrum of topics included in the ISSMP CBK ensures its relevancy across all disciplines in the field of information security management. Successful candidates are competent in the following six domains:

Leadership and Business Management

Threat Intelligence and Incident Management

Systems Lifecycle Management

Contingency Management Risk Management

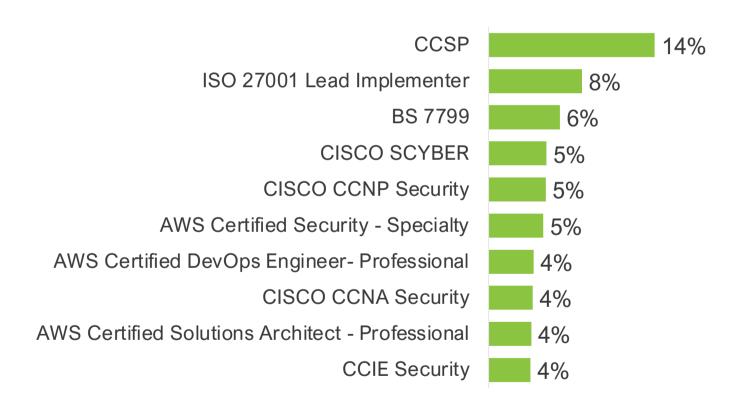
Law, Ethics and Security Compliance Management



CISSP-ISSMP Experience Requirements

Candidates must be a
CISSP in good
standing and have 2
years cumulative paid
work experience
in 1 or more of the 6
domains of the CISSPISSMP CBK.

Top Certifications and Certificates Pursued in 2021



CCSP_®

Certified Cloud Security Professional

An (ISC)² Certification

Ideal for Cloud Security Professionals

Shows you have the required knowledge, skills, and abilities in cloud security design, implementation, architecture, operations, controls, and compliance with regulatory frameworks.



CCSP_®

Certified Cloud Security Professional

An (ISC)² Certification

The CCSP is ideal for IT and information security leaders responsible for applying best practices to cloud security architecture, design, operations and service orchestration, including people in these positions.

Cloud Architect

Cloud Consultant

Cloud Security
Analyst

Auditor of Cloud Computing Services **Cloud Engineer**

Cloud Administrator

Cloud Specialist

Professional Cloud Developer



Certified Cloud Security Professional

An (ISC)² Certification

The broad spectrum of topics included in the CCSP CBK ensures its relevancy across all disciplines in the field of information security. Successful candidates are competent in the following six domains:

Cloud Concepts,
Architecture and Design

Cloud Data Security

Cloud Platform & Infrastructure Security

Cloud Security
Operations

Cloud Application Security

Legal, Risk and Compliance



Certified Cloud Security Professional

An (ISC)² Certification

CCSP Experience Requirements

Candidates must have a minimum of five years' cumulative paid work experience in information technology, of which three years must be in information security and one year in one or more of the six domains of the CCSP CBK.

Earning CSA's CCSK certificate can be substituted for one year of experience in one or more of the six domains of the CCSP CBK.

Earning (ISC)²'s CISSP credential can be substituted for the entire CCSP experience requirement.



HealthCare Information Security and Privacy Practitioner

An (ISC)² Certification

Ideal for Staff Charged with Guarding PHI

Proves ability to successfully implement, manage or assess security and privacy controls for healthcare and patient information.





HealthCare Information Security and Privacy Practitioner

An (ISC)² Certification

The HealthCare Information Security and Privacy Practitioner (HCISPP) is the ideal certification for those with the core knowledge and experience needed to implement, manage or assess the appropriate security and privacy controls of a healthcare organization. HCISPP provides confirmation of a practitioner's knowledge of best practices and techniques to protect organizations and sensitive data against emerging threats and breaches.

Compliance Officer

Privacy Officer

Risk Analyst

Information Technology Manager

Health Information Manager

Information Security Manager

Compliance Officer

Medical Records Supervisor

Privacy and Security Consultant

Practice Manager



HealthCare Information Security and Privacy Practitioner

An (ISC)² Certification

The broad spectrum of topics included in the HCISPP CBK ensure its relevancy across all disciplines in the field of information security. Successful candidates are competent in the following seven domains:

Healthcare Industry

Information Governance in Healthcare Information
Technologies in
Healthcare

Regulatory and Standards Environment

Privacy and Security in Healthcare Risk Management and Risk Assessment

Third-Party Risk Management



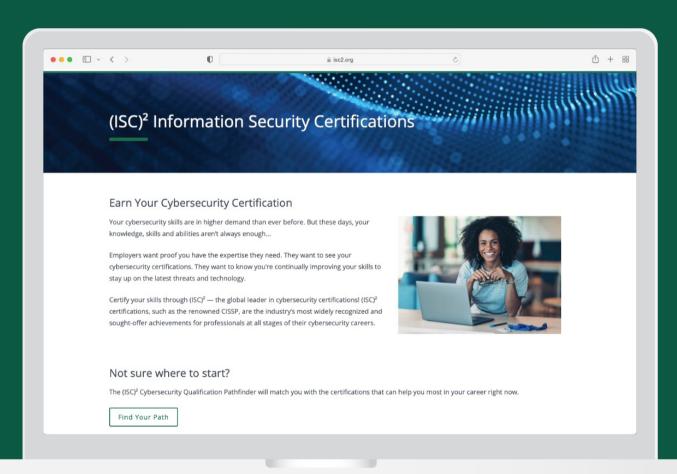
HCISPP Experience Requirements

Candidates must have a minimum of two years' cumulative paid work experience in one or more knowledge areas of the HCISPP Common Body of Knowledge (CBK) that includes security, compliance and privacy.

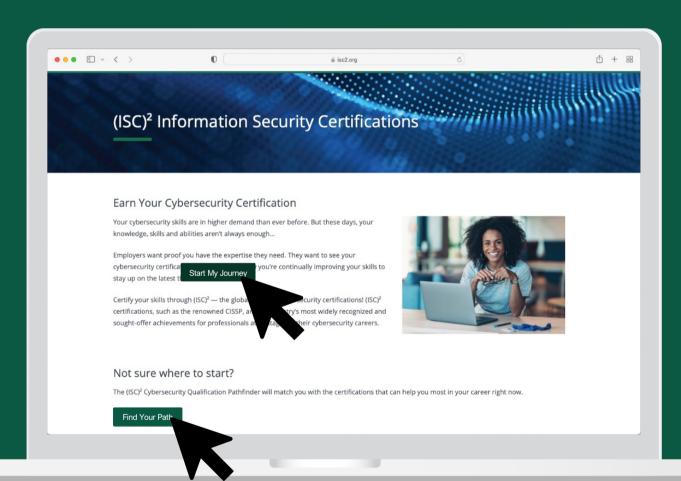
Legal experience may be substituted for compliance and information management experience may be substituted for privacy. Of the two years of experience, one of those years must be in the healthcare industry.



Learn more about (ISC)² cybersecurity certification at isc2.org/Certifications



Learn more about (ISC)² cybersecurity certification at isc2.org/Certifications



Thank you!

Questions?

Jon France

CISO

Appendix

Other Certification Details



An (ISC)² Certification

Ideal for IT administrators, managers, directors and network security professionals

Provides confirmation of a practitioner's ability to implement, monitor and administer IT infrastructure in accordance with information security policies and procedures that ensure data confidentiality, integrity and availability.





An (ISC)² Certification

The SSCP is ideal for IT administrators, managers, directors and network security professionals responsible for the hands-on operational security of their organization's critical assets, including people in these positions.

Network Security Engineer

Security Analyst

Security Consultant/ Specialist

Systems/Network
Analyst

Systems Administrator

Systems Engineer

Security Administrator

Database Administrator



An (ISC)² Certification

The broad spectrum of topics included in the SSCP CBK ensures its relevancy across all disciplines in the field of information security. Successful candidates are competent in the following seven domains:

Security
Operations and
Administration

Access Controls

Risk
Identification,
Monitoring and
Analysis

Incident
Response and
Recovery

Cryptography

Network and Communications Security

Systems and Application Security



An (ISC)² Certification

SSCP Experience Requirements

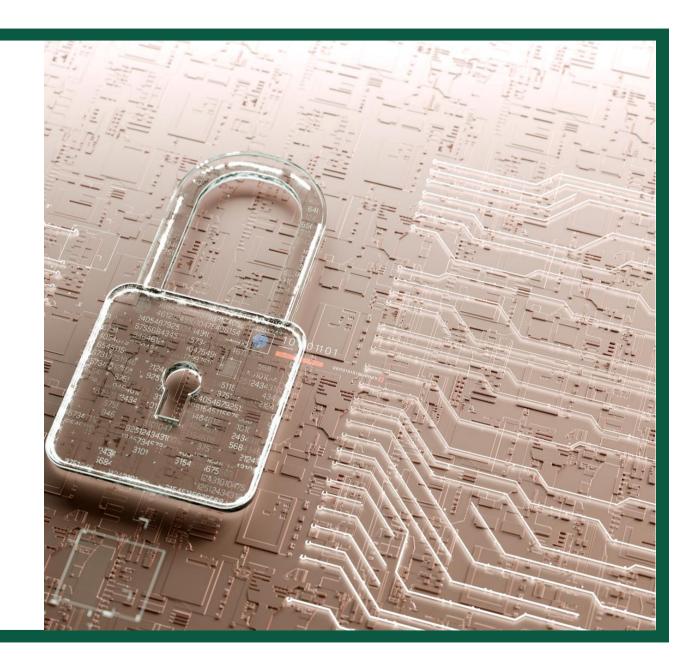
Candidates must have a minimum of one year's cumulative work experience in one or more of the seven domains of the SSCP CBK.

A one-year prerequisite pathway will be granted for candidates who received a degree (bachelors or masters) in a cybersecurity program.2



Ideal for Security Assessment and Authorizations Staff

The CAP shows employers you have the advanced technical skills and knowledge to understand Governance, Risk and Compliance (GRC) and can authorize and maintain information systems utilizing various risk management frameworks, as well as best practices, policies and procedures.





Certified Authorization Professional

An (ISC)² Certification

Who Earns the CAP?

The Certified Authorization Professional is an information security practitioner who advocates for security risk management in pursuit of information system authorization to support an organization's mission and operations in accordance with legal and regulatory requirements. System Security Officers

Risk Management Practitioners

Execs Responsible for Risk

Program Managers

System Security Managers

Continuous Monitoring Practitioners

Auditors

IT Professionals



Certified Authorization Professional

An (ISC)² Certification

The broad spectrum of topics included in the CAP CBK ensures its relevancy across all disciplines in the field of information security. Successful candidates are competent in the following seven domains:

Information Security Risk Management Program

Scope of the Information System

Selection and Approval of Security and Privacy Controls

Implementation of Security and Privacy Controls

Assessment/
Audit of Security
and Privacy
Controls

Authorization/ Approval of Information System

Continuous Monitoring



CAP Experience Requirements

Candidates must have a minimum of two years of cumulative work experience in one or more of the seven domains of the CAP CBK.



An (ISC)² Certification

Ideal for Software Development and Acquisitions Staff

CSSLP certification recognizes leading application security skills. Shows ability to incorporate security practices — authentication, authorization and auditing — into each phase of the software development lifecycle.





An (ISC)² Certification

The CSSLP is ideal for software development and security professionals responsible for applying best practices to each phase of the SDLC – from software design and implementation to testing and deployment – including those in the following positions:

Software Architect

Software Developer

Software Program Manager

Penetration Tester

Project Manager

IT Director/ Manager Software Engineer

Application Security Specialist

Quality Assurance Tester

> Software Procurement Analyst

Security Manager



An (ISC)² Certification

The broad spectrum of topics included in the CSSLP CBK ensures its relevancy across all disciplines in the field of information security. Successful candidates are competent in the following eight domains:

Secure Software Concepts

Secure Software Requirements

Secure Software Architecture and Design

Secure Software Implementation

Secure Software Testing

Secure Software Lifecycle Management Secure Software Deployment, Operations, Maintenance

Secure Software Supply Chain



An (ISC)² Certification

CSSLP Experience Requirements

Candidates must have a minimum of four years of cumulative paid Software Development Lifecycle (SDLC) professional work experience in one or more of the eight domains of the CSSLP CBK.

Or three years of cumulative paid SDLC professional work experience in one or more of the eight domains of the CSSLP CBK with a four-year degree leading to a Baccalaureate or regional equivalent in Computer Science, Information Technology (IT) or related fields.