



CHIEF INFORMATION SECURITY OFFICER (CISO) CERTIFICATE PROGRAM

The role of the CISO is gaining in prominence - are you ready?

Cybersecurity has become a defining business challenge of the digital era. Today's Chief Information Security Officers must do far more than protect technology assets — they must lead enterprise risk management efforts, strengthen organizational resilience, govern emerging technologies, and effectively communicate with executives, boards, regulators, and stakeholders.

The Carnegie Mellon University Chief Information Security Officer (CISO) Certificate Program prepares current and aspiring security leaders to operate at the intersection of business strategy, cybersecurity, technology, risk management, and organizational leadership. Developed by Carnegie Mellon University's Heinz College and the Software Engineering Institute (SEI), the program equips participants with the frameworks, tools, and leadership skills required to lead modern cybersecurity organizations in an increasingly complex threat environment.

Through an interdisciplinary curriculum, participants explore cyber risk management, operational resilience, supply chain risk, incident response, cyber law, security operations, governance, cyber economics, security architecture, cloud security, software and product security, threat intelligence, AI security and governance, agentic AI assurance, and AI-enabled cyber defense.

This six-month program, co-administered by Heinz College and the CERT Division of the SEI, blends live synchronous instruction with in-person residencies at Carnegie Mellon, guest lectures from industry leaders, and applied learning — giving working executives the flexibility of remote participation while maintaining direct engagement with CMU faculty, industry experts, and peers. The program concludes with a formal graduation ceremony.

#1 RANKED

Heinz College is #1 in Cybersecurity and Analytics and has been #1 in Information and Technology Management since 2001.

More than

1,000 SECURITY LEADERS

have come to Carnegie Mellon to prepare for the CISO role.

RECOGNIZED BY TOP AGENCIES

CMU is a national asset in the security domain and is an NSA/DHS National Center of Academic Excellence in Cyber Defense.



Role of the CISO

Alan Levine

Board Chair – CMU CISO Executive Program

Advanced Cyber Risk Management

Dr. Earl Crane

Owner, Risk Executive/Strategic Advisor – Earl Crane, LLC

Cyber Resilience and Supply Chain Risk Management

Matt Butkovic

Technical Director of Cybersecurity Risk and Resilience – CERT Division of SEI

Building an Insider Threat Program

Randy Trzeciak

Director – CERT Insider Threat Center at SEI

Effective Incident Response and Security Operations

Greg Porter

Adjunct Professor CMU Heinz College; Founder – Allegheny Digital

Cyber Law + Crisis Communications

Matthew Meade

Chair, Cybersecurity, Data Protection & Privacy Group – Eckert Seamans;

Larry Kamer

CEO – Kamer Consulting Group

CISO Organization Structure and Operations

Omar Khawaja

VP and Field CISO – Databricks

Cyber Economics: The Business of Cyber

Brigadier General (ret.) Gregory J. Touhill

Director – CERT Division of SEI

Cyber First Principles + Cyber Risk Quantification

Rick Howard

CEO, Cybersecurity Canon Project; former CSO – Palo Alto Networks

Jack Jones

Chairman Emeritus – FAIR Institute

INSTRUCTOR TESTIMONIAL

“The Carnegie Mellon CISO Program helped me expand my perspective beyond cybersecurity operations to the broader leadership, risk, and business challenges facing today’s security executives. The combination of world-class faculty, experienced practitioners, and an exceptional network of peers makes it one of the most valuable professional development experiences available to current and aspiring CISOs.”

- **John Gift** - SVP and Global CISO, PepsiCo, and CMU CISO Program Alumnus

Security Metrics, Governance, and Reporting

Summer Fowler

Corporate Vice President and Principal – Exponent

Cybersecurity Architecture and Tooling

Dennis Allen

Founder and Principal Consultant – Green Owl Cyber

Cloud Security Strategy + Securing Cyber-Physical Systems

Rich Friedberg

CISO – Envestnet;

Mark Fabro

President and Chief Security Strategist – Lofty Perch

CISO’s Guide to Software and Product Security: Effective Vulnerability Management

Josh Corman

Executive in Residence for Public Safety & Resilience – Institute for Security and Technology (IST)

Data-Driven Threat Intelligence

Bob Rudis

Distinguished Engineer – Censys

AI Security, Risk Management, and Governance

Omar Khawaja

VP and Field CISO – Databricks

Agentic AI Security and Assurance

Chris Hughes

VP of Security Strategy – Zenity; author, Securing Agentic AI

AI for Cyber Defense

Matt Butkovic

Technical Director of Cybersecurity Risk and Resilience – CERT Division of SEI

Guest Lecture Series:

Participants also engage with industry leaders through a guest lecture series covering:

- Cyber Insurance Landscape
- Effective Executive Presentations and Influence
- Vendor Management/Contract Negotiations
- Cyber Defense Matrix



PRACTICUM

The CISO Practicum gives students the opportunity to demonstrate their knowledge, skills, and abilities as a CISO by working in teams to develop an information security program plan and deliver a formal presentation to an executive suite.

- This unique capstone activity provides student teams a mechanism to demonstrate their knowledge, skills, and abilities in addressing a complex, real-world cybersecurity challenge.
- In order to be successful, teams need to demonstrate command of the material through focusing on application of the methods, tools, and techniques taught in the modules and throughout the program.
- Practicum projects are designed for small teams of students to work, alongside an experienced CISO mentor industry practitioner, to develop strategic recommendations and a security improvement roadmap for a project organization.
- Teams make an executive presentation to a simulated 'C-suite,' communicating the benefits of their recommendations to gain acceptance from their peers and the project organization's leadership.
- The CISO Program committee assembles teams to ensure that they consist of individuals from different industries/backgrounds to provide a unique learning experience for each student.
- The practicum serves as an integrating experience — strengthening executive leadership, stakeholder engagement, strategic thinking, and board-level communication skills alongside the core curriculum.



ALUMNUS TESTIMONIAL

"The most effective CISOs are those who can bridge cybersecurity, business strategy, and executive decision-making. The practicum provides participants with a unique opportunity to apply what they learn to real-world challenges while receiving guidance from experienced security leaders who have spent decades managing risk, leading organizations, and advising executives and boards."

- **Darrell Keeling** - Executive Coach and CISO Program Alumnus

BOARD CHAIR TESTIMONIAL

"Heinz College's CISO Program is the preeminent program for cyber security leadership, for several important reasons. It is authored by renowned cyber security strategists and specialists. It is presented by esteemed faculty, including professors who specialize in teaching cyber security at the highest levels. It is grounded in real-world case study and discussion. Graduates of this program tell us time and again that what they've learned in this program has immediate, actionable value and that they prize their experience in the program as integral to success in their pivotal roles. This program is making a difference, in the way CISOs plan, the way they operate, and the way they think, educating today's CISOs while preparing tomorrow's cyber security leadership. It has been my pleasure to serve as the chairman of the program's advisory board and to see the impact it has made over the years."

- **Alan Levine** - Board Chair - CMU CISO Executive Program



PROGRAM REQUIREMENTS

What are the steps to earning the CISO Program Certificate?

1. **Candidate Acceptance:** Each applicant must have sufficient practical experience (five years) with increasing responsibility in a managerial capacity. An undergraduate or advanced degree in a relevant field is preferred.
2. **Participation:** Participants must complete all certificate modules and assignments and attend all coaching sessions.
3. **Practicum Project:** During the CISO Practicum, students are required to demonstrate their knowledge, skills, and abilities as a CISO by working in teams to develop an information security program plan and deliver a formal presentation to an executive suite.

Receive Your Certificate! The CISO Program Certificate includes the following benefits:

- Free entry to any future CISO Program modules (prior approval is required). This benefit does not extend to future CIO, CRO, CDAIO, or CDigitalO program modules, unless the student is also a graduate of those programs.
- Students who complete the CISO Program Certificate — and any other Heinz College Executive Education certificate(s) — are eligible for an MSIT tuition discount scholarship, dollar-matched against program costs paid, up to \$40,000. The discount applies only after all certificate requirements are completed and does not guarantee MSIT admission.
- Official CISO Program logo for display

Heinz College Executive Education
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Pittsburgh, PA 15213
email: heinzexeced@cmu.edu
phone: 412-268-6730

PROGRAM LOGISTICS

Program Dates:

For program dates, please visit
www.heinz.cmu.edu/ciso

Program Fees:

Full Rate: \$19,500

Discounted Rate: \$15,600

Applies to Carnegie Mellon alumni (including CIO, CRO, CDAIO, and CDigitalO program graduates), U.S. government employees, veterans, and employees of non-profit organizations.

An additional \$1,000 discount is available to graduates of the Leading Enterprise Agent AI Development (LEAAID) Certificate Program.

Program cost is a flat rate with no additional fees. Because the CISO Certificate Program is non-credit bearing, students are unable to apply for tuition assistance, scholarships, or VA benefits, and program costs cannot be itemized.

Application Deadline:

For application deadline, please visit
www.heinz.cmu.edu/ciso

Please submit your application as soon as possible for consideration.

If space remains in the cohort after the given deadline, we will continue to accept applications on a first-come, first-served basis.

To Apply:

hnz.cm/ciso-apply

