

# Secure Coding in C and C++

## Professional Certificate

### Get Trained by Leaders in Cybersecurity

Our Secure Coding in C and C++ Professional Certificate helps you increase the security of your software and reduce vulnerabilities in the programs you develop.

### Get Serious About Secure Coding

Most programming errors can be avoided, and software vulnerabilities caused by undetected programming errors can jeopardize the goodwill you've built with your customers and business partners.

Earning this certificate demonstrates to your managers and customers that you're disciplined and are serious about your coding practices. Why not get trained and certified by a recognized leader in secure coding and cybersecurity?

### Improve the Security of Your Code

The best way to improve the security of your software is to eliminate coding errors that lead to vulnerabilities—before you release your products to users. More than ever, qualified experts are needed to develop software that's free of vulnerabilities. Our Secure Coding Professional Certificate Program helps put you on your way to becoming one of these experts.

Our certificate program helps you save money by showing you how to find and fix coding errors early in the development lifecycle. In particular, you'll learn to

- recognize common programming errors that lead to software vulnerabilities
- understand how common errors can be exploited
- employ mitigation strategies to prevent introducing common errors
- avoid I/O vulnerabilities
- develop a security mindset that can help protect your software from attack

### Benefit from Our Experience

We collaborate with members of the software development and software security communities to develop secure coding standards.

These standards are recognized and have been adopted by companies such as Cisco and Oracle. CERT secure coding standards also influenced the decision to include software assurance requirements in the National Defense Authorization Act (NDAA) for Fiscal Year 2013.

Read about our secure coding research at [cert.org/secure-coding](http://cert.org/secure-coding). Visit our collaborative wiki dedicated to coding standard development at [securecoding.cert.org](http://securecoding.cert.org).

### We Are a Trusted Partner

As part of Carnegie Mellon University's Software Engineering Institute, a federally funded research and development center, we are uniquely positioned as a trusted broker and have been assisting the software development community for years.

Our research partners include the Department of Defense, the Department of Homeland Security, other federal agencies, the intelligence community, private industry, academia, and the vendor community.

### Secure Coding Certificate Program



#### Secure Coding in C and C++ Professional Certificate

Available Now



#### Secure Coding in Java Professional Certificate

Available Now



## Secure Coding in C and C++ Professional Certificate

This certificate proves you successfully completed the program's secure coding courses, which teach you how to increase the security of your software and reduce vulnerabilities in the software you develop.

The course curriculum is based on the standards and guidelines published in the CERT Secure Coding wiki.

Over 1,900 programming experts contribute to these standards and guidelines. CERT researchers distilled the wiki content into a set of essential topics for designing and developing secure software in C and C++.

Earning your certificate shows that you've improved your ability to recognize and prevent coding errors that contribute to software vulnerabilities.

COURSE	DELIVERY	AUDIENCE	COMPLETION
<b>Secure Software Concepts</b> This course introduces concepts used in preventing coding errors and improving the security of software during its development.	Online	C and C++ developers	Available
<b>Secure Coding in C and C++</b> This 20-hour online course provides a detailed explanation of common programming errors in C and C++ and describes how these errors can lead to code that is vulnerable to exploitation.	Online	C and C++ developers	Available
<b>Secure Coding in C and C++ Examination</b> Candidates must successfully complete this exam to earn the Secure Coding in C and C++ Professional Certificate.	Online Exam	Secure Coding in C and C++ Professional Certificate candidates	Available

### Secure Coding Online Downloads

The 2016 editions of the *SEI CERT C Coding Standard* and *SEI CERT C++ Coding Standard* complement this certificate program and are available for free. Download the latest editions at [resources.sei.cmu.edu/library/asset-view.cfm?assetID=494934](https://resources.sei.cmu.edu/library/asset-view.cfm?assetID=494934).

### Register

To register, email [info@sei.cmu.edu](mailto:info@sei.cmu.edu) or visit our website at [cert.org/go/secure-coding](https://cert.org/go/secure-coding).

## About

For nearly 30 years, the CERT Division of the SEI at Carnegie Mellon University has been a leader in cybersecurity. Originally focused on incident response, we have expanded into cybersecurity areas such as network situational awareness, malicious code analysis, secure coding, resilience management, insider threats, digital investigations and intelligence, workforce development, DevOps, forensics, software assurance, vulnerability discovery and analysis, and risk management.

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