



Software Architecture: Principles and Practices (eLearning)



In the online Software Architecture: Principles and Practices course, your access to 11 hours of lecture and associated content costs \$500, which is 50% less than the classroom version. Even more, you save on travel and hotel costs.

Learn What You Need—at Your Pace, Wherever You Are

Choose from a menu of 90 topics, moving through them in sequence or viewing them in any order that suits your needs. Not only can you choose the order, you can also view any topic—or any part in it—as many times as you want to. You have access to the course 24 hours a day, 7 days a week.

This online version can also be the solution for overcoming the scheduling headaches of training a team of people who are in different locations in your organization. Training a team this efficiently gets them started quickly on using software architecture practices to gain a competitive advantage.

The SEI virtual training environment brings you video of an instructor discussing course material, content emphasizing the key points for that material, and a transcript of the instructor’s comments. The course also includes exercises in which you can apply what you have heard in the lecture and seen in the slides, as well as quizzes to confirm your understanding of the material. Upon completing all course elements, you are awarded an electronic certificate of course completion and 1.5 continuing education units (CEUs).

Who should attend?

This course is targeted at those professionals who design, develop, or manage the construction of software-reliant systems. This online course is designed for independent learners to quickly gain insight, at their convenience, into the latest concepts of what software architecture is and how to use it successfully.

What will you learn?

This online course provides attendees with a thorough overview of software architectures. After completing this course, learners will have a better understanding of

- the relationships between system qualities and software architectures
- software architectural patterns and their relationship to system qualities
- software architecture evaluation
- attribute-driven design
- software architecture documentation
- architectural reuse

This course is the most fundamental of the six courses in the SEI Software Architecture Curriculum. At the conclusion of the course, you will be eligible to take the SEI’s Software Architecture Design and Analysis and Architecture Tradeoff Analysis Method® (ATAM®) Evaluator Training courses. You will also be better prepared for the SEI’s Documenting Software Architectures and Software Product Lines courses. This course is also the first one required in the SEI’s Software Architecture Professional and ATAM Evaluator certificate programs.

The Best Training for Today’s Challenges

The SEI is an international leader in software engineering processes and practices and information security. Since 1984, the SEI has been defining and advocating methods for developing high-quality software and protecting networked systems.

- Train in the latest techniques
- Improve your organizations capabilities
- Analyze long-term system-evolution needs
- Learn from instructors with field experience

Course Details at a Glance

Course Fees [USD]

U.S. Industry:	\$500
U.S. Government/Academic:	\$500
International:	\$500

For More Information

For information contact Customer Relations
P: 412-268-5800
F: 412-268-6257
info@sei.cmu.edu
www.sei.cmu.edu



Software Architecture: Principles and Practices (eLearning)



Prerequisites

Before registering for this course, participants should have

- experience in the development of software-reliant systems
- some familiarity with modern software engineering concepts

Before beginning this course, the learner must acquire a copy of the textbook *Software Architecture in Practice, 2nd Edition*. The textbook can be purchased in both printed and electronic forms through the following links: printed version and eBook version.

To access this course, your computer must have the following:

- Broadband (greater than 200kbps) internet connection (for video streaming)
- AJAX-capable browser (Microsoft Internet Explorer 6+ or Mozilla Firefox 1.5+ for Windows, Firefox for Mac OS X and Linux variants)
- Adobe Flash 9+ browser plug-in for access to lecture videos
- Support for MP3 audio playback
- Adobe Acrobat Reader (for viewing PDF downloads)

You can use the VTE Browser Check (<https://www.vte.cert.org/vteweb/BrowserTest.aspx>) to evaluate the capabilities of the computer you wish to use to access the course.

Materials

- Recorded instruction presented by SEI instructors
- 11 hours of video training sessions with transcripts
- Exercises with solution guidance
- Case studies for analysis and recommendation
- Self-assessments following each module
- PDF version of all course materials

This course is presented in the form of video-recorded training sessions that were presented by SEI instructors to a classroom of students representing a variety of industries. Exercises and case studies included with the course explore

SEI Software Architecture Professional Certificate

This course is offered as part of the Software Architecture Professional Certificate. A software professional can earn the certificate by completing these courses:

- Software Architecture: Principles and Practices *or* Software Architecture: Principles and Practices - eLearning
- Documenting Software Architectures
- Software Architecture Design and Analysis
- Software Product Lines

This four-course sequence provides both the needed breadth and depth in software architecture concepts and practices. Beginning with an introduction to software architecture fundamentals, participants gain experience in effective architecture documentation, design, and analysis techniques, and then learn how these techniques can be put to advantage in adopting a product line approach to software.

We recommend that certificate candidates begin with the Software Architecture: Principles and Practices course. The courses which follow build upon the concepts presented and may be taken in any sequence.

The Software Architecture: Principles and Practices Examination (SAPP Exam) provides an objective validation of the candidate's knowledge and understanding of software architecture. Candidates for the Software Architecture Professional Certificate must achieve a passing score of 75% in order to qualify for the Certificate.

There is no fee for the Certificate. There are fees associated with the requisite courses and the examination. Additionally, there is no expiration for the Certificate.

and reinforce the concepts taught and how they can be successfully applied. Exercise solution guidance supports this independent learning experience. Self-assessments following each module assist in the learner's thorough comprehension of specific subject matter. All course and reference materials are included in the training environment and can be downloaded.

For More Information

For information contact Customer Relations
 P: 412-268-5800
 F: 412-268-6257
info@sei.cmu.edu
www.sei.cmu.edu