Limes Academy

List of Courses 2021/2022

LIMES SECURITY

What Limes Academy Offers

Through Limes Academy, we offer training packages in the following areas: Security Awareness, OT Security and Security Engineering.

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Why Limes Academy?

All Limes Academy classes are held by our experienced industrial security experts, bringing you a combined experience of over a decade in industrial cybersecurity through education and consulting practice. You benefit not only from excellent training content, but also from a wealth of practical experience. Additionally, every class includes practical exercises, making the respective topics even clearer and more tangible for the participants.

+ **Individual training formats**	Our trainings take place at selected training centers, at our locations, or as online courses. We also offer customized training exclusively for your company.
+ **Interactive trainings**	The training content taught is complemented by practical exercises. Discussions stimulate the exchange of experiences between the course participants and help comprehend the acquired knowledge.
+ **Training materials**	Training materials will be provided to you in high quality color print.
+ **Expertise**	All trainings are held by our experienced OT Security and Secure Development experts who bring lots of experience from project practise.
+ **Relevance**	New incidents and security developments are continuously integrated into the training content. You benefit from the latest security knowledge.
+ **Certificates**	At the end of the training you will receive a certificate of participation. For some courses, it is possible to receive a personal certificate.

About Limes Security

Limes Security is a highly professional consulting firm that has achieved a clear market position within a few years through consistently good work. Limes Security stands for professionalism and methodical know-how at the highest level. The company's goal is the highest possible level of security, specializing in vendor-independent, customized security solutions in the areas of secure software development and industrial security.

Limes Security GmbH is an owner-operated company. The Limes Security team consists of top experts with years of experience in challenging projects. Without exception, the consultants at Limes Security are professionals trained at the best universities and technical colleges in Europe and abroad, and are closely networked with the international security community. Many years of experience in cyber security in an industrial environment are at the service of Limes Security clients.

Our Services

Regardless of whether you are a world market leader in wind energy, a software development company or an Internet of Things pioneer, global player in industrial plant construction or urban infrastructure operation - Limes Security has just the right service for every business:

- **Secure operation of industrial facilities**
  We assist you with identifying technical and organizational weaknesses in your organization, aid you in setting up effective and efficient security organizations and implement appropriate countermeasures.
- **Secure development of products and solutions**
  We help you to identify defects in your products and solutions, assist with the setup of secure development practices and coach you to deal with vulnerabilities in the long run.
- **Training and certification of industrial staff**
  We enable you to build and integrate security capabilities into your organization through top-class security trainings and certification of your staff.

References

These companies and many others rely on the security competence of Limes Security.

General Training Information

Book a Public Course

To book one of our courses and find out about the next public training dates on your topic, please go to https://limessecurity.com/academy/

You can then easily register for our public courses on the website.

Are you Looking for an Individual Training for your team?

Limes Academy is your competent partner in training your employees. We will put together a training program tailored specifically to your requirements. Based on existing content, the training can be individually adapted to your wishes:

Adapting the content and the examples to meet your employees' level of knowledge, your industry, and relevant standards / requirements / norms both legal and set by your company.

We adapt the training duration and the location (on-site, online) to your needs and the availability of the employees to be trained.
We customize our exercises or implement new ones based on the specific expertise of your developers

Send us a request!
https://limessecurity.com/en/inhouse-training/

Procedure for In-House Trainings

**Coordination of training contents**
The client selects the training content which is adapted to the respective needs.

**Adaptation of the training course**
Limes Security adapts the exercises and documents to the individually selected content.

**Selection of a date**
The client sets a date for the training in coordination with Limes Security.

**Implementation of the training course**
The client determines the location of the training as well as the time frame.

**Provision of the training material**
provides the participants with documents that are individually adapted to the customer's needs.

**Certificate**
At the end of the training the participants will receive a certificate of completion.

**Optional certification**
At the end of selected trainings an official certification can be carried out by one of our certification partners.

Knowledge Transfer

Limes Academy offers courses in various formats so that you can participate in the optimal training adapted to your learning style. Regardless of whether you want to take part in an online class with other participants or prefer personal training in your company: At Limes Academy, you will find a learning format that meets your individual requirements.

In-House

The training is conducted by a Limes Academy trainer specifically for your company, department, or team. The training takes place on site at your company, in a training center, or at a company location of your choice.

In-House Online

The training is conducted by a Limes Academy trainer specifically for your company, department, or team. The training takes place online and is held using your company's infrastructure or the infrastructure of Limes Security.

Public

Public courses at selected locations, held by a Limes Academy trainer.

Public Online

The training is conducted live by a Limes Academy trainer in an interactive virtual classroom. The class can be attended worldwide.

Our Trainers

Unsurpassed Professional Expertise

Our trainers are all academically trained and seasoned security experts with several years of consulting experience in industry and software development.

The additional benefit for you as a participant: In addition to excellent training content, you can also share in a wide range of experience and knowledge from practical experience for practical use.

Speaker Profiles

Specialized in A = Awareness Training I = OT Training S = Security Engineering Training

Lucas Brandstätter A I

supports with his knowledge in the ISMS (ISO 27000) and OSMS (IEC 62443) area, companies in the introduction of management systems. In the course of risk analyses and penetration tests, he checks systems for untapped potential for improvement. In training courses he emphasizes interactive feedback from the participants.

Peter Eder-Neuhauser A I

shows the importance of integrated risk management, incident handling, coordinated IT governance, threat and gap analyses, privacy impact assessments and awareness through his research focus on malware propagation in IT/OT networks, specific mitigation measures and secure architecture.

Thomas Brandstetter A I

is our broad-spectrum antibiotic against security ignorance. As a Stuxnet Incident Handler and former head of Siemens Product-CERT, he knows industrial security from all life cycle phases. He is Professor of IT and OT Security at the University of Applied Sciences St. Pölten and is certified for CISSP, GSEC, GICSP and GRID.

Simon Hornbachner A I S

has worked for several years in the areas of security operations and infrastructure operations and therefore knows „the other side" very well - what it means to have to implement cyber security in daily work. It is therefore of particular concern to him to establish a concrete reference to the daily work of the participants in the contents taught.

Gandalf Denk A I S

is an Oracle Certified Associate and Trainer for Secure Coding and certified GIAC Mobile Device Security Analyst (GMOB). He loves solving tricky problems - whether creating secure applications or trying to hack them. During training sessions he shares his experiences and likes to challenge participants with complex exercises.

Our Trainers

Speaker Profiles

Specialized in A = Awareness Training I = OT Training S = Security Engineering Training

Johannes Klick A I

is a passionate researcher and OT security expert. His research interests focus on OT security and global Internet scanning for threat assessments. He has given presentations at internationally recognised conferences like Chaos Communication Camp, PHDays Russia and Black Hat USA.

Peter Panholzer A I S

is veteran of the first hour for industrial security and secure software development. He is a certified ISO 27001 auditor, member of the OVE working group on IEC 62443, hacker and for over ten years trainer for secure coding. He loves to give the participants tricky tasks and to assist them with the right security tips.

Phillipp Kreimel A I

brings technical security expertise to training courses and penetration tests through his years of experience in industrial security research in the production and energy sectors. He is certified according to GIAC Response and Industrial Defense (GRID) and is a lecturer for IT security at the University of Applied Sciences St. Pölten.

Kerstin Reisinger A I

is an Offensive Security Certified Professional and trainer for Industrial Security. As a long-standing, experienced project manager in complex OT security projects, she supports industrial companies and energy suppliers with a great deal of technical knowledge. She likes to incorporate this experience into her classes as war stories.

Daniel Marzin A I

is a certified Offensive Security Certified Professional with focus and know-how in the OT sector. With his experience he conducts security assessments and network restructuring in industrial and pharmaceutical companies. As application developer he also knows the other side. He shares his experience in the form of security trainings.

Tobias Zillner A I S

concentrates mainly on current hacking techniques and reverse engineering of wireless communication, in addition to his focus on OT security. He regularly speaks at international security conferences and is active in teaching at the University of Vienna and the University of Applied Sciences St. Pölten.

Overview of Trainings

100 Security Awareness Training

200 OT Security Training

OT Security Foundation

OT Security Advanced

OT Security Additions

300 Security Engineering Training

Secure Coding

Secure Development

100 Security Awareness Training

The Employee as the Target

Most successful attacks start by exploiting human nature to invade internal networks. Your employees must learn to understand where security risks lurk in their daily work - regardless of whether they work in management, production, or marketing.

Training Contents

In our tried and tested Security Awareness training, we impart the required self-competence that employees need in order to immediately identify risks and avoid negligent behavior. Limes Security brings experiences from attack campaigns, vivid demos, and exciting war stories to accomplish that. We use entertaining explanations of the most essential security rules that every employee of a modern company should know in order not to be a security risk for their own company.

Awareness

AWT.101 IT Security Awareness	AWT.102 OT Security Awareness	AWT.103 Zero Downtime: Blackout Edition

AWT.101 IT Security Awareness

4 hours

All employees

No Notebook necessary

Course material and certificate of completion

400.- euros plus VAT

German or English

No prior knowledge necessary

In-house / In-house online
Public / Public online

IT Security Awareness

The IT Security Awareness training serves as a basis for every employee in the company to impart a basic understanding for security or to refresh pre-existing security knowledge.

Training Contents

- # What is information security?
- # Who are the attackers?
- # Recent attacks, incidents, and hacking demo
- # Secure rules of conduct
  - Dealing with programs, software and emails
  - Dealing with passwords and password policies
  - Handling USB sticks and other external media
  - Handling your own equipment in the company (Bring your own Device – BYOD)
  - Handling information
  - Physical security
- # Recognize attacks and report suspicious cases
- # Security in the private environment

Your Benefits

- # Impart a basic understanding of security for all employees.
- # Create security awareness in the participants for an increased security level in their own company.
- # Refresh already known rules of conduct for secure actions within the company.

Registration

You will find the registration for the **AWT.101 IT Security Awareness Training** under the adjacent link or by scanning the QR code.

https://limessecurity.com/academy/awt-101/

AWT.102 OT Security Awareness

4 hours

All employees

No Notebook necessary

Course material and certificate of completion

400.- euros plus VAT

German or English

No prior knowledge necessary

In-house / In-house online
Public / Public online

OT Security Awareness

The OT Security Awareness training serves as a basis for every employee in the OT area to impart a basic understanding of security or to refresh pre-existing security knowledge. In contrast to the AWT.101 IT Security Awareness training, this course highlights concrete examples and rules of conduct specifically for the OT area.

Training Contents

- # What is included in Operational Technology (OT)?
- # Who is attacking industrial control systems?
- # Recent attacks, incidents and OT-specific hacking demo
- # Secure rules of conduct
  - Dealing with programs, software and emails
  - Dealing with passwords and password policies
  - Handling USB sticks and other external media
  - Physical security
- # Recognizing attacks and reporting suspicious cases
- # Top 10 OT security risks

Your Benefits

- # Impart a basic understanding of security for all employees in the OT sector.
- # Create security awareness in the participants for an increased security level in their own company.
- # Refresh already known rules of conduct for secure actions within the company.
- # Detect and prevent risky behavior in industrial plants.

Registration

You will find the registration for the **AWT.102 OT Security Awareness Training** under the adjacent link or by scanning the QR code.

https://limessecurity.com/academy/awt-102/

AWT.103 Zero Downtime: Blackout Edition

2 hours

All employees

No Notebook necessary

Course material and certificate of completion

On request

German or English

No prior knowledge necessary

In-house

Cyber Security Simulation Game Zero Downtime

As a contestant, transform yourself from an affected person to an involved participant: In the cyber security simulation game, you become the defender of your corporate assets. Several teams compete against each other and learn to simulate reality.

The simulation game is based on a serious thought: The participants learn about current IT threat scenarios and adequate security concepts as countermeasures at the forefront. Through the direct involvement of each individual, the learning content is firmly and sustainably anchored; at the same time teamwork is essential. In the end, the company that has best mastered the challenges is declared the winner.

The simulation game is moderated by a Limes Security expert and the results are summarized briefly after each round. The participants play in groups at a table with a game board in combination with a tablet. No special previous knowledge is required to participate, and the simulation game is also suitable for beginners.

Your Benefits

- # Get to know important security measures and concepts in a playful manner.
- # Apply effective countermeasures to security threats as a contestant.
- # Learn about the effects and consequences of certain security measures and concepts.
- # Upgrade your company event or conference with this hands-on experience!

Registration

The registration for **AWT.103 Zero Downtime: Blackout Edition** can be found under the link on the right or by scanning the QR code.

https://limessecurity.com/academy/awt-103/

200 OT Security Training

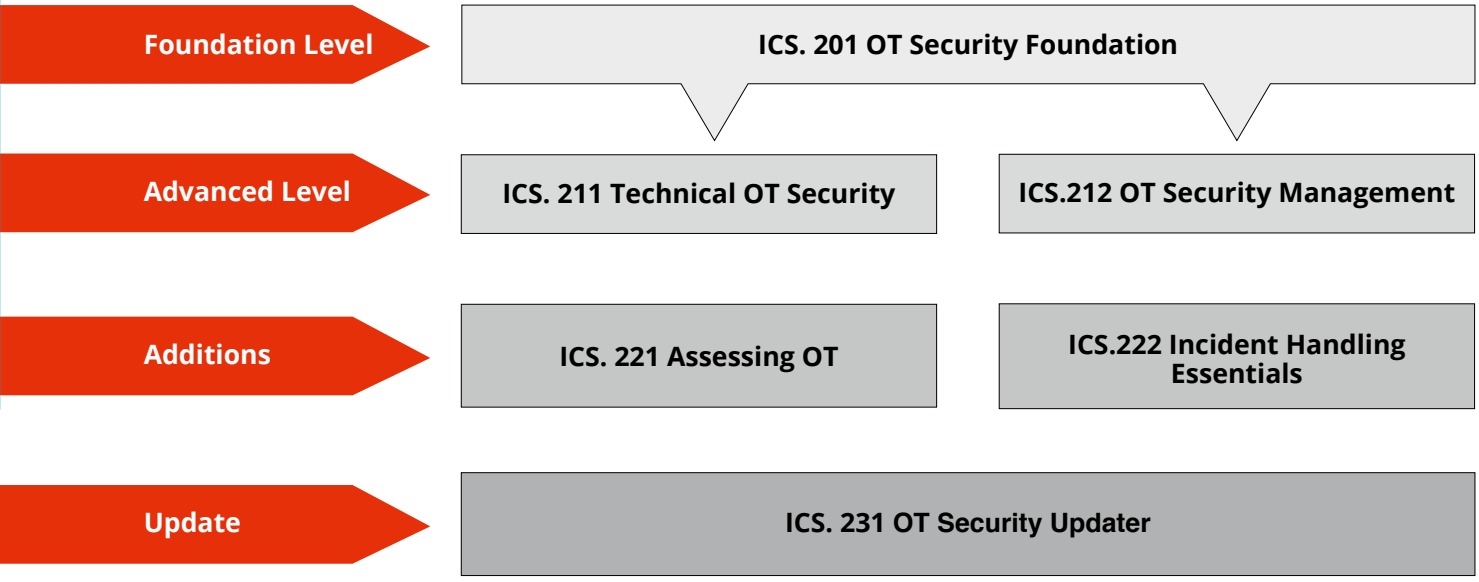
Secure Digitization for Technicians and Decision Makers

In addition to increased security requirements, technical changes in the area of industrial security have become new challenges for manufacturers, system integrators and operators of industrial plants. A consequence of this rapid change is that security today works completely differently than the familiar world of industrial automation of the past decades.
Limes Security provides clarity, gives guidelines for action and imparts competence for the correct handling of security topics in an industrial environment.

Training Contents

The training contents have been selected based on the experience gained from many industrial projects and are aimed at the challenges facing the industry in practice. Our training courses impart the security basics (foundation) urgently needed by industrial personnel as well as advanced knowledge for decision-makers and technicians and special topics (additions). Through practical examples and war stories from our trainers, you develop all the skills required for secure digitization in industry.

For some courses it is possible to obtain a TÜV® person certificate by passing an official exam.



OT Security Courses with Personal Certification

In addition to increased security requirements, technical changes in the area of industrial security have become new challenges for manufacturers, system integrators and operators of industrial plants. A consequence of this rapid change is that industrial security today works completely differently than the familiar world of industrial automation of the past decades. Limes Security and TÜV AUSTRIA Academy provide clarity, give guidelines for action and impart competence for the correct handling of security topics in an industrial environment.

Limes Security offers a personal certification scheme in cooperation with TÜV AUSTRIA (https://www.tuv-akademie.at/en/). The Limes Security Academy's high-quality and practical OT security training courses - from "Practitioner" to "Manager" - are divided into three modules, each taking 2.5 days. The exam, conducted by TÜV AUSTRIA, can be taken immediately after the end of the training on the third day.

Who benefits from a personal certificate?

This certification is perfectly suited for employees from the industrial sector who want to visibly improve their qualifications in the field of security and also want to provide proof of their knowledge in this area. **The certification is therefore aimed at companies from the following sectors:** industrial component manufacturers, manufacturing industry, mechanical engineers, system integrators, plant operators, energy suppliers, operators of critical infrastructure

Persons in the function: maintenance, production technicians, plant planners and plant engineers, persons responsible for plant IT, future operations managers and production managers

Due to changed regulatory requirements and industrial security standards (NIS directive, IEC 62443), it is becoming increasingly important for industrial component manufacturers, system integrators and plant operators to be able to provide evidence of qualified personnel. The OT security personal certification scheme provides significant help in this context.

Overview of the personal certification scheme

Training & examination for Certified OT Security Practitioner TÜV® (COSP)

Level 1: Training series Operational Technology Security, course ICS.201 Industrial Security Foundation
Prerequisites: No prior knowledge required; basic information security knowledge beneficial

Training & examination for Certified OT Security Technical Expert TÜV® (COSTE)

Level 2: Training series Operational Technology Security, course ICS.211 Technical OT Security
Prerequisites: Completed training including examination for Certified OT Security Practitioner TÜV® (COSP) or Certified OT Security Manager TÜV® (COSM) or an equivalent training course or proven relevant professional experience of at least 38 hours per week.

Training & examination for Certified OT Security Manager TÜV® (COSM)

Level 2: Training series Operational Technology Security, course ICS.212 OT Security Management
Prerequisites: Completed training including examination for Certified OT Security Practitioner TÜV® (COSP) or Certified OT Security Technical Expert TÜV® (COSTE) or an equivalent training course or proven relevant professional experience of at least 38 hours per week

Details About the Certification

Limes Security has found a reliable and strong partner in TÜV AUSTRIA Academy in the area of personal certification. TÜV AUSTRIA is an internationally active certification body for the certification of persons, products and systems. Various accreditations, official authorizations and commercial law licenses are the basis for globally recognized certificates. Each certification procedure of persons strictly complies with the stringent provisions of the international standard ISO/IEC 17024. Person certificates of TÜV AUSTRIA create trust and offer you a clear advantage in the professional world.

Certification procedure

The exams for an OT security person certificate are carried out in writing during physical trainings or through an online platform provided by TÜV AUSTRIA specifically for examination purposes during online trainings. Every applicant needs to provide a photo ID; for the online examination the use of a webcam is therefore mandatory.

During the exam, candidates have 90 minutes to answer a total of 30 questions in multiple choice mode. The course materials provided may be used during the examination.

After positive completion of the exam, the TÜV AUSTRIA Person Certificate can be used to prove that a certain knowledge can be competently applied and implemented.

Cost

The certification fee includes the issue of one certificate. Duplicate certificates are charged separately. Certificates are issued in German or English, but can be issued in other languages on request.
Each examination or part of an examination may be repeated once free of charge on one of the next examination dates depending on the available spots. Additional dates will be charged according to time and expense.

Validity

In order to ensure that your knowledge is always up to date with current technical and organizational developments, the validity of your certificate is time-limited. The TÜV AUSTRIA Person Certificates for OT security are valid for three years.

ICS.201 OT Security Foundation

Training without certification: 2.5 days
Training with certification: 3 days

German or English

Training without certification: 1.680,- euros plus VAT
Training + certification incl. exam: 2.310,- euros plus VAT

Own Notebook required

OT Security Foundation

The OT Security Foundation Training is the ideal start for anyone interested in OT Security – regardless of previous knowledge or area of work. Due to increasing digitalization, the need for OT Security competence in the industry is growing rapidly. The OT Security Foundation Training provides basic knowledge of OT Security, gives an overview of current standards and regulations and presents concrete measures for the secure operation of industrial systems.The OT Security Foundation Training is the ideal start for anyone interested in OT Security – regardless of previous knowledge or area of work. Due to increasing digitalization, the need for OT Security competence in the industry is growing rapidly. The OT Security Foundation Training provides basic knowledge of OT Security, gives an overview of current standards and regulations and presents concrete measures for the secure operation of industrial systems.

Training Contents

Day 1

- # Introduction to Operational Technology (OT)
  - Evolution of ICS/OT
  - OT process types
  - OT components and terminology
  - OT incidents
- # IT vs. OT Security
  - Safety vs. Security
  - Characteristics of OT systems vs. IT systems
  - OT security vs. IT security
- # IT essentials (part 1)
  - IT security objectives
  - Network protocols
  - Crypto refresher

Day 2

- # IT essentials (part 2)
  - Secure network protocols
  - Network security basics
- # Security threats and attack vectors
  - OT attackers
  - OT attack vectors
  - OT risk factors and threats
- # OT standards overview
  - NIS directive
  - IEC 62443
  - ISO 27000 & ISO 27019
  - NIST 800-82 and CSF
  - BDEW Whitepaper, TISAX, NERC CIP & Cyber Security Procurement Language for Control Systems

Day 3

- # Well-proven security measures for OT
  - Defense in Depth
  - Organisational security measures
  - Security assessments and reviews
  - Configuration management
  - Network and communication security
  - Component security
  - Access control

No prior knowledge necessary

In-house / In-house online
Public / Public online

Course material and certificate of completion
Option for person certificate!

» **If you only want to obtain the person certificate for this training, please contact us.**

The Training is Particularly Recommended for ...

- # System integrators
- # Plant operators, planners, and technicians
- # Maintenance workers
- # Production technicians
- # Plant electricians
- # Machine operators
- # Plant IT managers
- # Future plant managers and production managers
- # Employees who work directly with OT
- # Managers whose employees work with OT
- # IT employees with responsibility for OT assets
- # Employees who are responsible for the procurement, planning or operation of OT assets

After the Training the Participants Should ...

- # have a confident feeling in dealing directly with OT security.
- # have a basic understanding of OT technologies and terminology.
- # have gained a basic awareness of OT security standards and their areas of application.
- # know the most important security measures for the OT area.
- # be able to make a contribution to protecting industrial operations in their area of responsibility.

Certified OT Security Practitioner TÜV® (COSP)

Registration

You will find the registration for the **ICS.201 OT Security Foundation Training** under the adjacent link or by scanning the QR code.

https://limessecurity.com/academy/ics-201/

ICS.211 Technical OT Security

Training without certification: 2.5 days
Training with certification: 3 days

German or English

Training with certificate: 1.970,- Euro plus VAT
Training + certification incl. exam: 2.600,- Euro plus VAT

Own Notebook required

OT Security Advanced: Technical OT Security

The OT Security Foundation Training is the ideal start for anyone interested in OT Security – regardless of previous knowledge or area of work. Due to increasing digitalization, the need for OT Security competence in the industry is growing rapidly. The OT Security Foundation Training provides basic knowledge of OT Security, gives an overview of current standards and regulations and presents concrete measures for the secure operation of industrial systems.

Training Contents

Day 1

Introduction
- OT Threat Lan-dscape
- Procurement of a secure system
- IEC 62443 risk analysis

ICS/OT protocols
- Overview Wired and Wireless Protocols
- Industrial Protocol Details (Profinet, Profibus, OPC und OPC UA, IEC 60870-5, MQTT, uvm.)
- Wireless Protocol Details
- Securing industrial protocols
- Wireshark Introduction

Day 2

Network-based attacks
- Denial-of-service attacks
- Network Sniffing
- Protocol Spoofing
- Man-in-the-middle attacks

Advanced OT Network Security Deep Dive
- Network segmentation
- OT Specific Firewall Topics

Day 3

Applying Applying security measures in OT
- Security requirements and implementation
- User Management
- Credential Management
- Host Hardening
- System Monitoring and Network Detection
- Anomaly And Threat Detection
- Remote Access
- Backup and Recovery
- OT Security Market Guide
- IEC 62443 certification

Final Challenge

ICS.201 OT Security Foundation training recommended

In-house / In-house online
Public / Public online

Course material and certificate of completion
Option for person certificate!

» **If you only want to obtain the person certificate for this training, please contact us.**

The Training is Particularly Recommended for ...

- # System integrators
- # Plant operators, planners, and technicians
- # Maintenance workers
- # Production technicians
- # Plant IT managers
- # Future plant managers and production managers
- # Employees who are responsible for the procurement, planning or operation of OT assets
- # IT employees with responsibility for OT assets

After the Training the Participants Should ...

- # further consolidate and deepen existing knowledge in IT and OT security.
- # know how to technically implement security measures in the OT operation.
- # have a basic understanding of OT transmission technologies and protocols.
- # understand different network protection measures in the OT through the Purdue model.
- # know the procedure for partitioning and zoning of an architecture according to IEC 62443 including the security levels.
- # have gained insight into the use of honeypot systems against attackers.
- # understand the relationship between physical security and OT security.

Certified OT Security Technical Expert TÜV® (COSTE)

Registration

You will find the registration for the **ICS.211 Technical OT Security Training** under the adjacent link or by scanning the QR code.

https://limessecurity.com/academy/ics-211/

ICS.212 OT Security Management

Training without certification: 2.5 days
Training with certification: 3 days

German or English

Training without certification: 1.970,- euros plus VAT
Training + certification incl. exam: 2.600,- euros plus VAT

Own Notebook required

OT Security Advanced: OT Security Management

The OT Security Management training provides those responsible for operations, project and production managers and decision-makers in general with the knowledge they need to implement security in industrial operations. Participants learn all necessary skills to recognize dangers early on, to increase the security level and to lastingly avoid security vulnerabilities. The focus is on organizational topics and process management, in addition technical influencing factors are also discussed, which prepare the participants better for future security decisions.

Training Contents

Day 1

- # Overview of security standards and frameworks
- # Case study: OT security incident in the absence of OT security management
- # Organisational measures and ISMS
- # Definition of the system under consideration (SUC)
- # Asset management
- # Risk management
- # Supply chain management
- # Classification of information

Day 2

- # Partitioning and zoning
- # Secure remote access
- # Component security (hardening)
- # Identity and access management
- # Awareness training
- # Patch management

Day 3

- # Incident handling
- # Logging and monitoring
- # Anomaly detection
- # Vulnerability assessment
- # Incident response planning
- # Backup
- # System availability

ICS.201 OT Security Foundation training recommended

In-house / In-house online
Public / Public online

Course material and certificate of completion
Option for person certificate!

» **If you only want to obtain the person certificate for this training, please contact us.**

The Training is Particularly Recommended for ...

- # System integrators
- # Plant operators, planners and technicians
- # Maintenance workers
- # Production technicians
- # Plant IT managers
- # Future plant managers and production managers
- # Employees who are responsible for the procurement, planning or operation of OT assets
- # IT employees with responsibility for OT assets

After the Training the Participants Should ...

- # be able to securely manage their responsible operating areas and assess risks.
- # have refreshed and deepened their existing knowledge of OT security and related standards.
- # have gained a basic understanding of the risk assessment procedure.
- # understand asset discovery and component classification capabilities.
- # have developed a holistic view of security processes.
- # be able to define response plans and establish defined communication strategies for incident management.

Certified OT Security Manager TÜV® (COSM)

Registration

You will find the registration for the **ICS.212 OT Security Management Training** under the adjacent link or by scanning the QR code.

https://limessecurity.com/academy/ics-212/

ICS.221 Assessing OT

1 day

Technicians

Own Notebook required

Course material and certificate of completion

788,- euros plus VAT

German or English

ICS.211 Technical OT Security Training

In-house / In-house online
Public / Public online

OT Security Additions: Assessing OT

The Assessing OT training provides participants with the basics to be able to professionally conduct security tests in industrial plants. Which tools should be used for which application? Which test cases are intrusive and therefore less suitable for OT? What information is relevant in the context of an OT security audit? In this course, participants benefit in particular from the Limes experts' many years of experience in conducting security assessments in an industrial environment.

Training Contents

- # Underground Economy
- # Security test requirements from IEC 62443 and ISO 27001
- # ICS Asset Discovery
- # Checking users and authorizations
- # Configuration review of ICS systems
- # Verification of patch and software versions
- # Checking the perimeter protection
- # Procedure for an ICS security test
- # Testing the BSI ICS Top 10
- # Use and configuration of test tools for productive environments

Your Benefits

- # View networks and systems through the eyes of an attacker and identifying potential attack vectors and security issues.
- # Know what has to be considered during a security check in an industrial environment.
- # Know how the results of a security audit can lead to an increased level of security.

Registration

You will find the registration for the **ICS.221 Assessing OT Training** under the adjacent link or by scanning the QR code.

https://limessecurity.com/academy/ics-221/

ICS.222 OT Incident Handling Essentials

1 day

Technicians and Decision makers

Own Notebook required

Course material and certificate of completion

774,- euros plus VAT

German or English

ICS.201 OT Security Foundation Training recommended

In-house / In-house online
Public / Public online

OT Security Additions: Incident Handling Essentials

The Incident Handling Essentials training provides participants with the necessary basics to prepare for security incidents in an industrial environment. The most important technical and organizational preparations will be discussed along with the "DOs and DON'Ts". This course is particularly interesting for plant operators, integrators and service providers who want to prepare for an emergency to be able to more easily prevent damage caused by virus attacks, ransomware or hacking.

Training Contents

- Introduction to Security Incident Handling: Basics and terms
- The lifecycle of an incident in six steps
- Technical and organizational prerequisites: How do I prepare for incident handling?
- Asset Identification and Network Security
- Monitoring: What role do tools play in detection?
- Rules of conduct in case of an incident "DO's and DON'Ts"
- Case Study: CrashOverride and TRISIS
- CERTs & Co.: Where can I get information about threats and external assistance?

Your Benefits

- Learn to use techniques and methods for maintenance of industrial operation
- Get to know best practice during a potential ICS security incident
- Deal with the topic of weak points and incident handling in your own company

Registration

You will find the registration for the **ICS.222 Incident Handling Essentials Training** under the adjacent link or by scanning the QR code.

https://limessecurity.com/academy/ics-222/

ICS.231 OT Security Updater

4 hours

Technicians and Decision makers

No Notebook necessary

Course material and certificate of completion

400,- euros plus VAT

German or English

No prior knowledge necessary

In-house / In-house online
Public / Public online

OT Security Updater

The OT Security Updater training course serves as a refresher and update course for the participants to inform them about organizational and technical innovations and progress in the field of security.

Training Contents

- New security features in ICS protocols
- Innovations in the area of compliance and regulations
- News about IEC 62443
- ICS vulnerabilities and attack campaigns
- Innovations in security technologies

Your Benefits

- Efficiently refresh the knowledge you've already acquired in just four hours.
- Learn about the most important innovations from the technical as well as from the organizational world of security.
- Stay one step ahead of attackers with information about current ICS vulnerabilities and attack campaigns

Registration

You will find the registration for the **ICS.231 Updater Training** under the adjacent link or by scanning the QR code.

https://limessecurity.com/academy/ics-231/

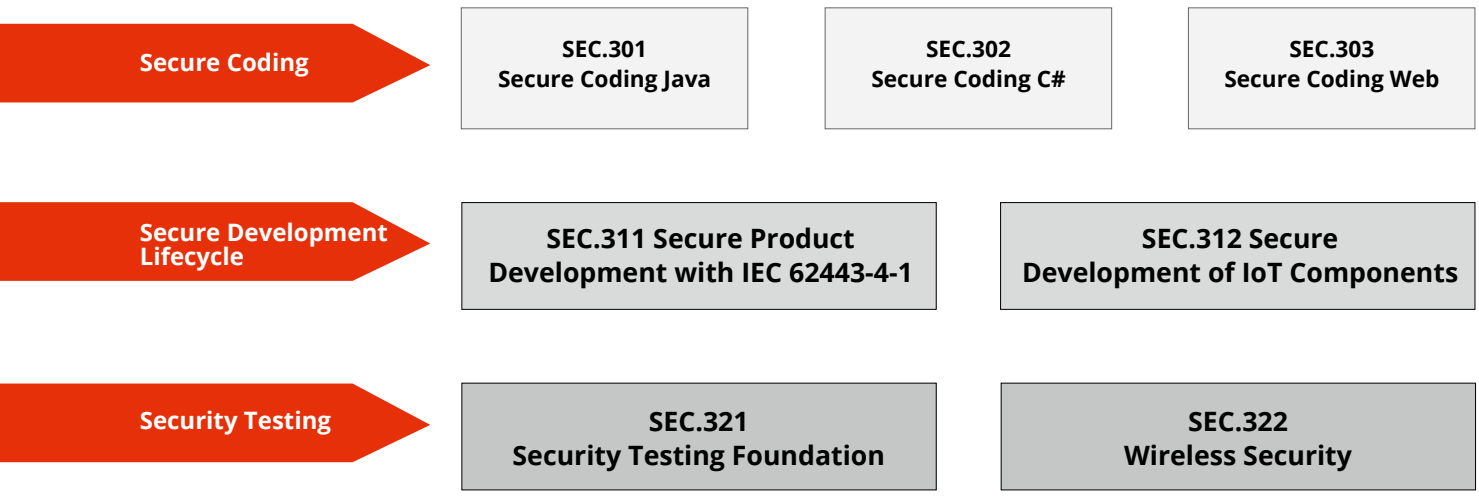
300 Security Engineering Training

Secure Products Through Superior Know-How

How can security vulnerabilities be avoided right from the start? Only through appropriate training and improvement of the security expertise of developers and project members. We teach the "DOs and DON'Ts" in theory and in practical exercises. In the security engineering training courses, experienced trainers from Limes Security impart the knowledge of how attackers proceed and which measures best protect against them.

Training Contents

The Secure Coding training provides the participants with the knowledge and understanding for the development of secure products so that they can be implemented in their own projects. The Security Testing training teaches the participants to take the perspective of an attacker, allowing them to efficiently identify vulnerabilities in their products. The System Hardening training gives system administrators the tools they need to protect a digital infrastructure against both internal and external attacks. All courses are accompanied by practical exercises that illuminate both the attacker and the defender's side, imparting a multi-layered picture.



SEC.301 Secure Coding Java

3 days

2.364,- euros plus VAT

Java developers

German or English

Secure Coding Java

The Secure Coding training for Java teaches the correct usage of exception handling, multi-threading and other Java-specific methods that are necessary as a basis for developing robust code. In addition, various cryptographic technologies will be discussed, including encryption, hashing and digital signatures. Classical web attacks such as cross-site scripting, SQL injection and cross-site request forgery will be explained as well as how applications can be protected against them. Practical exercises are used to create a deep understanding of the different subject areas. In order to further increase the code quality, the correct handling of code reviews is demonstrated as well as how the learned techniques can be integrated into the Secure Development Lifecycle.

Training Contents

Day 1

Introduction to IT Security
- Evolution of Cyberattacks
- Types of Attackers
- IT-Security 101

Preparation for an Attack
- Risk Analysis
- Open Source Intelligence

Attacks on Input Parameters
- SQL Injections
- Cross-Site Scripting (XSS)
- Overflow, Underflow and Upcasting
- Code Injections
- Deserialization
- Web Application Firewalls

Day 2

Sniffing of Login Data or Tokens
- Plaintext Authentication
- Authentication without PKI
- Authentication with bad/old Cipher Suites

Attacks on a Thick-Client
- Secrets within the Client Software
- Modification of Client Software
- Abuse of Client Software

Attacks on Session and Authentication
- Path Traversal
- Session Prediction
- Session Fixation
- Java Web Tokens

Own Notebook required

Course material and certificate of completion

Experience in web technologies and Java

In-house Public

The Training is Particularly Recommended for ...

developers, but provides a mix of information for frontend and backend developers and also includes the perspective of software the position of software architects.

After the Training the Participants Should ...

understand how attacks work and start thinking like an attacker.
understand why secure software development is important and why to implement it.
understand what steps are necessary for a secure software development.
be capable to integrate secure development into their area of responsibility.

Registration

You will find the registration for the **SEC.301 Secure Coding Java Training** under the adjacent link or by scanning the QR code.

https://limessecurity.com/academy/sec-301/

SEC.302 Secure Coding C#

3 days

2.364,- Euro zzgl. MwSt.

C# developers

German or English

Secure Coding C#

During the Secure Coding for C# training, different C# language features will be introduced that can contribute to the stability of the code and are necessary as a basis for the development of robust code. In addition, cryptographic concepts such as encryption, hashing or digital signatures are discussed. You will learn how to achieve robust session management using meaningful access controls. Classic web attacks such as cross-site scripting and SQL injection are explained and how to protect against them is demonstrated. Finally, we discuss how code reviews and static analyses are performed to achieve optimal code quality. For a better understanding, the topics are explained using practical exercises.

Training Contents

Day 1

Introduction to IT-Security
- Evolution of Cyber-Attacks
- Types of Attackers
- IT-Security 101

Cryptography
- Encryption
- Hashs
- Signatures
- Public-Key Infrastructure and Certificates
- Transport Layer Security (TLS)

Authentication & Authorization
- Passwords
- Problems with Password-based Authentication
- Brute-Force-Attacks

Day 2

Authentication & Authorization Part 2
- Secure Session Management
- Forwards and Redirects
- Security-Frameworks

Injection Attacks
- SQL Injections
- OS Command Injection
- Cross Site Scripting (XSS)

Day 3

C# Language Security
- Data Types
- Encapsulation
- Exception Handling
- Logging
- Multi-Threading
- Code Signing

Secure Communication
- XML Injections
- Windows Communication Foundation
- Web Apps and TLS/HTTPs

Revision
- Code Review
- Static & Dynamic Analyse
- Secure Software Development Process

Own Notebook required

Course material and certificate of completion

Experience with C# development

Inhouse Public

The Training is Particularly Recommended for ...

developers, but provides a mix of information for frontend and backend developers and also includes the perspective of software the position of software architects.

After the Training the Participants Should ...

understand how attacks work and start thinking like an attacker.
understand why secure software development is important and why to implement it.
understand what steps are necessary for a secure software development.
be capable to integrate secure development into their area of responsibility.

Registration

You will find the registration for the **SEC.302 Secure Coding C# Training** under the adjacent link or by scanning the QR code.

https://limessecurity.com/academy/sec-302/

SEC.303 Secure Coding Web

2 days

1.576,- Euro zzgl. MwSt.

Developers and testers

German or English

Secure Coding Web

As part of the Secure Coding Web training, security concepts on the web will be discussed, including Transport Layer Security (TLS) and Cross-origin Resource Sharing (CORS). How session management can be securely implemented will be explained. Then the anatomy of the most common web attacks such as cross-site scripting, cross-site request forgery and SQL injections is discussed together with how to avoid them. In addition, more complex web attacks such as XML external entities, broken authentication, and security misconfiguration are explained. It concludes with an explanation of how code reviews can lead to improved code quality and how a secure development life cycle can be implemented in your organization. For a better understanding practical exercises are built into the topics.

Training Contents

Day 1

Introduction to IT-Security
- Evolution of Cyber-Attacks
- Types of Attackers
- IT-Security 101

Cryptography
- Encryption
- Hashs
- Signatures
- Public-Key Infrastructure and Certificates
- Transport Layer Security (TLS)

Authentication & Authorization
- Passwords
- Problems with Password-based Authentication
- Brute-Force-Attacks

Day 2

Authentication & Authorization Part 2
- Secure Session Management
- Forwards and Redirects
- Security-Frameworks

Injection Attacks
- SQL Injections
- OS Command Injection
- Cross Site Scripting (XSS)
- XML Injection
- Cross Site Request Forgery

Own Notebook required

Course material and certificate of completion

Experience in web technologies

In-house
Public

The Training is Particularly Recommended for ...

developers, but provides a mix of information for frontend and backend developers and also includes the perspective of software the position of software architects.

After the Training the Participants Should ...

understand how attacks work and start thinking like an attacker.
understand why secure software development is important and why to implement it.
understand what steps are necessary for a secure software development.
be capable to integrate secure development into their area of responsibility.

Registration

You will find the registration for the **SEC.303 Secure Coding Web Training** under the adjacent link or by scanning the QR code.

https://limessecurity.com/academy/sec-303/

SEC.311 Secure Product Development with IEC 62443-4-1

2 days

Developers and project managers

Own Notebook required

Course material and certificate of completion

1.576,- euros plus VAT

German or English

No prior knowledge necessary

In-house Public

Secure Product Development with IEC 62443-4-1

If you don't want to leave the security and the quality of your products to chance, you have to choose a proactive approach. Only by integrating security into the development processes and by having an organization that knows how to deal with the topic professionally can high-quality products that meet the needs of the market be created. The Secure Product Development with IEC 62443-4-1 training teaches the participants how security can be integrated into software development with the help of the IEC 62443-4-1 standard section security in order to make their products lastingly secure.

Training Contents

- # Introduction to IEC 62443-4-1 (principles and requirements)
- # Security management (product classification, security organization, security training, integrity protection, protection of the development environment, selection of secure components)
- # Specification of security requirements
- # Secure by design and secure implementation
- # Security verification and validation testing
- # PSIRT and security update Management
- # Security guidelines

Your Benefits

- # Know suitable methods and get familiar with the measures to integrate security into your development processes.
- # Be capable to use useful tools to review and improve your product security.
- # Overcome constant challenges such as legacy code, updates from third-party vendors or communication of vulnerabilities.

Registration

You will find the registration for the **SEC.311 Secure Product Development with IEC 62443-4-1 Training** under the adjacent link or by scanning the QR code.

https://limessecurity.com/academy/sec-311/

SEC.312 Secure Development of IoT Components

2 days

Developer

Own Notebook required

Course material and certificate of completion

1.576,- euros plus VAT

German or English

No prior knowledge necessary

In-house Public

Secure Development of IoT Components

Component security starts here. More and more devices communicate with each other and are interconnected. In addition to numerous advantages, this development also brings new challenges and threats, especially in terms of security. Like security in most IT areas, IoT security requires an end-to-end approach that includes addressing security issues during the design phase.
How can security vulnerabilities be avoided right from the start? What threats do I need to protect my system against? What security measures do I need to use?

Training Contents

- # Introduction to IoT-Security
- # Attacks, threats and risks in the real world
- # Threat modeling
- # Security testing & toolset for attackers
  Guidelines and standards (IEC 62443, OWASP IoT Security, ENISA, NIST)
- # Secure system design
- # Secure updates
- # Secure storage and cloud connectivity
- # IoT communication protocols
- # Secure development lifecycle basics
- # Vulnerability disclosure

Your Benefits

- # Acquire a solid foundation for implementing security in IoT systems.
- # Know security concepts that are applicable to a wide range of IoT devices.
- # Gain a solid, technical understanding of the typical attacks, threats and risks that IoT entails.
- # Be able to look at an IoT system from the perspective of an attacker.
- # Learn how to identify relevant assets.
- # Understand defense principles and create defense strategies.

Registration

You will find the registration for the **SEC.312 Secure Development of IoT Components Training** under the adjacent link or by scanning the QR code.

https://limessecurity.com/academy/sec-312/

SEC.321 Security Testing Foundation

2 days

1.576,- euros plus VAT

Testers

German or English

Security Testing Foundation

The Security Testing Foundation training teaches the basic concepts of security testing. A structured procedure is presented along with how security tests for an application can be organized. Subsequently, cross-site scripting and SQL injection attacks will be discussed with a focus on web applications and their anatomy will be explained and practiced using real-world examples. During the training, well-known hacking tools will be used again and again to give the participants a tangible picture of reality. Finally, tools are presented with which automated security scans can be carried out and how their results are to be dealt with.

Training Contents

Day 1

Introduction
- Evolution of Cyber-Attacks
- Attackers & Their Motivation
- Regulations and Standards

Preparation
- Basic Risk Assessment
- Identify System Architecture
- Define Scope
- Preparing the Test Environment

Security-Testing for Cryptography
- Encryption
- Hashs
- Digital Signature

Security-Testing for Web-Applications
- Cross Site Scripting
- Cross Site Request Forgery
- SQL Injections
- Session Attacks
- Brute forcing
- Path Traversal
- Replay Attacks

Day 2

Security-Testing for Authentication
- Authentication Schemas
- SQL Injection
- Cross Site Scripting
- Brute-forcing Attacks
- Pass the Hash

Security-Testing of own Proprietary Interfaces
- Fuzzing
- Interactive Testing Tools

Security-Testing for System Hardening
- System Hardening
- Discovery Tools
- Automated Vulnerability Scanning
- Configuration Testing

Result Collecting and Reporting
- Management Overview
- What Information Matters
- How to Handle Reports

Own Notebook required

Course material and certificate of completion

Experience in web technologies

In-house Public

The Training is Particularly Recommended for ...

The training offers software testers the an insight into the basics of software testing with a focus on security aspects.

After the Training the Participants Should ...

understand how attacks work and start thinking like an attacker.
know how to use automated testing tools to efficiently cover recurring test cases.
be capable to document identified vulnerabilities in a meaningful way to facilitate traceability and re-testing.

Registration

You will find the registration for the **SEC.321 Security Testing Foundation Training** under the adjacent link or by scanning the QR code.

https://limessecurity.com/academy/sec-321/

SEC.322 Wireless Security

2 days

Testers

Own Notebook required

Course material and certificate of completion

1.576,- euros plus VAT

German or English

Experience in coding

In-house Public

Wireless Security

This course introduces participants to the analysis and evaluation of the security of wireless communications and the typical problems, identification of wireless signals and best practices for testing wireless communications. RF theory, software-defined radio (SDR), the basics of radio and digital signal processing are discussed to provide a solid basis for understanding the security implications in this area. Special attention is paid to possible attack methods and test scenarios. Multiple exercises facilitate rapid progress in understanding the background and allow participants to make assessments and to test wireless communication themselves. In addition, excerpts from known vulnerabilities in real world products and standards are presented to underline the importance of the topic.

Training Contents

- # Radio-frequency (RF) introduction and theory
- # Introduction Software Defined Radio (SDR) and GNU Radio
- # Receiving and sending signals
- # Signal analysis
- # Modulation types and encodings
- # Introduction to reverse engineering
- # From signal to bits
- # Replay and injection attacks
- # Attack vectors in wireless communication

Your Benefits

- # Learn to perform a security analysis of wireless devices and identify typical problems.
- # Understand the fundamentals of RF theory, SDR and digital signal processing to build a solid foundation for understanding the security implications in this area.
- # Be able to identify possible attack vectors and test scenarios.
- # Have gained insight into known vulnerabilities in wireless device products and standards.

Registration

You will find the registration for the **SEC.322 Wireless Security Training** under the adjacent link or by scanning the QR code.

https://limessecurity.com/academy/sec-322/

Conditions of Participation

1. SCOPE OF APPLICATION

These general conditions of participation apply to the implementation of training courses and further training measures by Limes Security.

2. REGISTRATION AND ORDER

At www.limessecurity.com/en/academy you will find the complete course offer with all details and can register there directly. The registration becomes binding with a registration confirmation from Limes Security or TÜV Austria Akademie. The places for participants are limited and will therefore be allocated in the order of registration.

3. PARTICIPATION FEES AND TERMS OF PAYMENT

The prices listed in the list of courses or on the website are valid plus the legal value added tax. These are due immediately after invoicing without deductions and under indication of the invoice number to the payment. Before the start of the course we will send the invoice to the e-mail address given by you in the registration form. Unless otherwise stated in the order confirmation, the participation fee is per person and event and includes training material, lunch and drinks during breaks. Travel costs for our trainers for in-house training courses are not included in the course price and are offered separately.

4. ACCOMMODATION

Hotel reservations and costs for accommodation and meals outside seminar times are at the customer's expense.

5. EXECUTION AND CANCELLATION

Limes Security reserves the right to cancel the offered courses if the minimum number of participants is not reached. Limes Security also reserves the right to change trainers and venues as well as dates and program schedules. Participants will be informed of changes in good time. If a course does not take place, payments already made in respect of participation will be refunded to the participant without deductions. Further claims of the client are excluded, this also includes if the participant misses a seminar day due to his own fault.

6. COURSE TIMES

The specified course times, in particular the course duration as well as the end times, are to be understood as indicative values which can be influenced by interactive elements or discussions with the participants. Our trainers strive to provide the best possible learning experience for course participants. There is no claim to exact fulfillment of the course time.

7. REVOCATION AND CANCELLATIONS

Cancellations must be made in writing and are free of charge up to 7 working days (Mon-Fri) before the event begins. The cancellation deadline is only deemed to have been met if the written notice of cancellation is received within the deadline at the e-mail address provided for the course registration. From within 6 working days (Mon-Fri) to 1 working day before the start of the event, 30% of the participation fee will be charged for cancellations. If a registration for a subsequent date of the same course topic is received during this period, a reduced cancellation fee of 10% will be charged. There is no entitlement to a subsequent date, the corresponding new registration must be confirmed by Lime Security. In case of no-show or cancellation from the (first) day of the event, the full attendance fee will be charged. The cancellation fee is due with the effective date of the cancellation and is payable regardless of the reasons for cancellation. The cancellation fee shall not apply if the customer names a substitute participant who meets the admission requirements and pays the participation fee.

Conditions of Participation

8. CHANGES OF BOOKING

A desired change of booking to another course or another date must be made by the customer by e-mail. Whether a rebooking is possible and under which conditions is to be judged by Limes Security on a case-by-case basis. There is no right to rebooking.

9. IN-HOUSE TRAINING

Please get in touch with us in good time so that your desired appointment can be taken into account. The reservation can be made only after presentation of the written order.

10. COPYRIGHTS AND LICENCES

All course contents and material are protected by copyright for Limes Security GmbH. The term “material” covers all printed materials as well as any digital media, virtual machines or digital assets distributed by Limes Security designated for use in a Limes Security training class. Course materials are only intended for the personal use of the course participant. For any portion of the provided material it is forbidden to copy, reproduce or distribute, to display, to create derivative works with or without modification, regardless of media format and purpose, without express prior written consent of Limes Security. Additionally, you may not commercially use the training material in any way without the express written consent of Limes Security.
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11. DATA PROTECTION

The data of the customer and/or the participants are recorded in our CRM system and only used by Limes Security for internal purposes of contract fulfilment.11. Data Protection
The data of the customer and/or the participants are recorded in our CRM system and only used by Limes Security for internal purposes of contract fulfilment.

12. LIABILITY

Limes Security is only liable for damages which can be proven to be based on an intentional or grossly negligent breach of duty within the framework of the contractual relationship or which are typical damages within the scope of the foreseeable. Should seminars lead to a delayed start or complete cancellation of a seminar due to force majeure, no liability will be assumed. Limes Security accepts no liability for damages that may be attributable to incomplete or incorrect information in the training documents. Limes Security accepts no liability for the theft or loss of items brought by the customer.

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www.limessecurity.com

Validity of the Course Book

This list of courses is valid from July 1st, 2021; previous offers lose their validity.
The stated prices are valid for registration or order until June 30th, 2022.
In the event of deviations in content, the information on the website applies.

LIMES SECURITY