



linalab

Grille de compétences

2017

SECURITY AND RISK MANAGEMENT	
Corner Information Security Concepts	AAA Defense-in-Depth Due Care and Due Diligence Confidentiality, Integrity, Availability Least Privilege and Need to Know Non-Repudiation
Legal and Regulation Issues	Compliance with Laws and Regulations Criminal, Civil, and Administrative Law GDPR Intellectual Property International Cooperation Legal Aspects of Investigations Liability Major Legal Systems Privacy
Third-Party Security	Acquisitions Divestitures Procurement Service Provider Contractual Security Vendor Gouvernance
Ethics	Computer Ethics Institute The ISC Code of Ethics
Information Security Gouvernance	Personnel Security Security Policy an Related Documents
Access Control Defensive Categories	Comparing Access Controls Compensating Corrective Detective Deterrent Preventive Recovery
Risk Analysis	Assets Budget and Metrics Calculating Annualized Loss Expectancy Impact Quantitative and Qualitative Risk Analysis Return on Investment Risk Analysis Matrix Risk Choices The Risk Management Process Threats and Vulnerabilities Total Cost of Owership
Types of Attackers	Black Hats and White Hats Bots and Botnets Hacktivist Insiders Outsiders Phishers and Spear Phishers Script Kiddies
ASSET SECURITY	
Classifying Data	Clearance Formal Access Approval Labels Need to Know Security Compartments Sensitive Information / Media Security
Owership	Business or Mission Owners Custodian Data Collection Limitation Data Controllers and Data Processors Data Owners System Owner Users
Memory and Remanence	Data Remanence Memory
Data Destruction	Degaussing Destruction Overwriting Shredding
Determining Data Security Controls	Certification and Accreditation Protecting Data in Motion and Data at Rest Scoping and Tailoring Standards and Controls Frameworks
SECURITY ENGINEERING	
Security Models	Access Control Matrix Bell-LaPadula Model Chinese Wall Model Graham-Denning Model Harrison-Ruzzo-Ullman Model Information Flow model Integrity Models Lattice-Based Access Controls Modes of Operation Noninterference Reading Down and Writing Up State Machine Model Take-Grant Zachman Framework
Methods, Certification, Accreditation	The international Common Criteria
Secure system Design Concepts	Abstraction Layering Open and Closed Systems The Ring Model
Secure Hardware Architecture	Data Execution Prevention and Adress Space Layout Randomization Memory Protection The Computer Bus The CPU The system Unit and Motherboard Trusted Platform Module
Secure Operating System and Software Architecture	The Kernel Users and Files Permissions
Virtualization and Distributed Computing	Cloud Computing Grid Computing Large-Scale Parallel Data Systems Peer to Peer Virtualization
System Vulnerabilities, Threats and Coutermeasures	Client-Side Attacks Malicious Code Mobile Device Attacks Server-Side Attacks Web Architecture and Attacks
Corner Cryptographic Concepts	Confusion, Diffusion, Substitution, Permutation
Types of Cryptography	Asymmetric Encryption Hash Functions Symmetric Encryption
Cryptographic Attacks	Brute Force Chosen Plaintext and Adaptive Chosen Plaintext Know key Know Plaintext Meet-in-the-middle Attack Rainbow Tables Social Engineering
Implementing Cryptography	Digital Signatures Ipsec Message Authenticate Code PGP S/MIME SSL and TLS

Perimeter Defenses	Contraband Checks Doors and Windows Gates Guards Locks Mantraps and Turnstiles Motion Detectors and Other Perimeter Alarms Restricted Work Areas and Escorts Smart Cards and Magnetic Stripe Cards Tailgating / Piggybacking Walls, Floors, and Ceilings
Site Selection, Design and Configuration	Site Design and Configuration issues Site Selection issues
System Defenses	Asset Tracking Port Controls
Environmental Controls	Electricity Heat, Flame, and Smoke Detectors HVAC Personnel Safety, Training and Awareness
COMMUNICATION AND NETWORK SECURITY	
Network Architecture and Design	Fundamental Network Concepts LAN Physical Network Topologies Network Defense-in-Depth The OSI Model The TCP/IP Model WAN Technologies and Protocols Wireless Local Area Networks
Secure Network Devices and Protocols	Bridges Firewalls Repeaters and Hubs Routers Switches
Secure Communications	Remote access VPN
IDENTITY AND ACCESS MANAGEMENT	
Authentication Methods	Something You Know / Something You Have / Something You Are
Access Control Technologies	Access Provisioning Lifecycle Centralized Access Control Credential Management Systems Decentralized Access Control Federated Identity Management Identity as a Service (IDaaS) Integrating Third-party Identity Services Single Sign-On
Access Control Models	Mandatory Access Controls (MAC) Non-Discretionary Access Control Rule-Based Access Controls
SECURITY ASSESSMENT AND TESTING	
Assessing Access Control	Internal and Third Party Audits Log Reviews Penetration Testing Security Assessments Security Audits Vulnerability Testing
Software Testing Methods	Analyse and Report Test Outputs Combinatorial Software Testing Fuzzing Misuse Case Testing Static and Dynamic Testing Traceability Matrix
SECURITY OPERATIONS	
Administrative Security	Administrative Personnel Controls Privilege Monitoring
Forensics	Forensic Software Analysis Network Forensics
Incident Response Management	Incident Response Methodology Root-Cause Analysis
Operational Preventive and Detective Controls	Continuous Monitoring Data Loss Prevention Endpoint Security Honeypots Intrusion Detection Systems and Intrusion Prevention Systems Security Information and Event Management
Asset Management	Change Management Configuration Management
Continuity of Operations	Fault Tolerance Service Level Agreements
BCP and DRP Overview and Process	Business Continuity Planning Disaster Recovery Planning Disasters or Disruptive Events Relationship between BCP and DRP The Disaster Recovery Process
Developing a BCP/DRP	Assessing the Critical State Conduct Business Impact Analysis Identify Preventive Controls Plan Approval Project Initiation Recovery Strategy Related Plans Scoping the Project
Backups and Availability	Electronic Backups Hardcopy Data Software Escrow
DRP Testing, Training and Awareness	DRP Testing, Training and Awareness
Continued BCP / DRP Maintenance	Continued BCP / DRP Maintenance
Specific BCP / DRP Frameworks	NIST SP800-34
Assessing the Effectiveness of Software Security	Assessing the Security Impact of Acquired Software Disclosure Software Vulnerabilities

PROGRAMMING	
General-Purpose	ASM C C# C++ COBOL Delphi Java OCaml Swift TPascal VBA Visual Basic WPF
Web	Ajax Bootstrap CSS HTML Javascript JQuery PHP Prototype SASS / SCSS Script.aculo.us Twig
XML	XPath XQuery XSD Schema XSL XSLT
Frameworks & Platforms	.NET Android SDK / NDK LibGDX OpenGL ES Symfony WinDev
GUI & Web	Java FX JSF JSP Servlets Struts Swing / AWT Vaadin
Web Services	Jax-RS Jax-WS Jersey RESTEasy
Application Servers	Apache TomEE Glassfish JBoss
Web servers	Apache Tomcat Jetty
IDE	Eclipse IntelliJ NetBeans Visual Studio
IoC	CDI JBoss Seam Spring
ORM & Persistence	Doctrine EJB3 Hibernate JDBC JPA
BRMS & Indexing	JBoss Drools Lucene
Unit Testing	JUnit Mockito Selenium
Logging	Log4J SLF4J
Build & Integration	Ant CVS Git Gradle Jenkins JRebel Maven Nexus SVN
CMS	Joomla SharePoint Wordpress
DATABASES	
RDBMS	Access DB2 Informix MySQL Realm SQL Server
Queries	Relational Algebra Relational Calculus SQL SQLite Transact-SQL
SOFTWARE ENGINEERING	
Concepts	Algorithmics Big-O / Complexity Data Structures Datamining Optimization
Tools	BPMN Design Patterns Metamodeling Requirements Analysis UML Yakindu Statechart Tools
Ecosystem	Code Quality Continuous Integration Version Control
Concurrency	CSP Thread & Monitor
MATHEMATICS	
Concepts	Induction Proof Probability Statistics
Tools	S-PLUS Weka XLSTAT
SYSTEM	
OS	Android iOS MacOS RedHat Ubuntu Windows
Scripting	Bash Perl
Networks	Link-State Routing Protocols OSI Model Packet Analysis
MANAGEMENT & OPERATIONS	
Standards	COBIT GAMP4/21 CFR part 11 ISO9001 ITIL PMI/PMBOK
Models	Agile / Scrum Lean Waterfall
Tools	Microsoft Project Mindmapping ProjectLibre Skills Grid WBS Wrike
Processes	Communications Governance HR & Stakeholders Maturity Outsourcing Planning Procurement Quality Risks Training
MISC	
Office	Excel OneNote Outlook PowerPoint Visio Word
Scientific Writing	LaTeX MiKTeX Overleaf
Artificial Life	Cellular Automaton
Artificial Intelligence	Multi-Agent Systems
Bioinformatics	Data Analysis Image Processing Microarrays Simulation String Matching
Electronics & Physics	Raspberry Pi
Graphics	After Effects Experience Design Illustrator InDesign Lightroom Photoshop
Computer Music	Audition Cubase SX Dr Rex Massive Reaper Reason