COMPLIANCE STANDARDS

UPDATED MARCH 2025



COURSE TITLE

CWE OWASP NIST* PCI ISO NERC HIPAA GDPR MITRE

COURSE TITLE	CWE	OWASI	P NIST*	PCI	ISO	NERC	HIPAA	GDPR	МІТ
SECURITY PRINCIPLES									
AWA 101. Fundamentals of Application Security	√	√		√			√	✓	
AWA 102. Secure Software Concepts	√	√	√	√	√	√		√	
AWA 106. Building Secure Software: Overcoming Challenges in Application Security	√	√							
AWA 107. Building Secure Software: Foundations and Best Practices	√	√	√	√	√	√			
AWA 108. Building Secure Software: A Guide to Software Integration, Testing, and Deployment	√		√	√	√	√			
ENG 110. Essential Account Management Security			√						
ENG 111. Essential Session Management Security			√						
ENG 112. Essential Access Controls for Mobile Devices			√						
ENG 113. Essential Secure Configuration Management			√						
ENG 114. Essential Risk Assessment			√					√	
ENG 115. Essential System and Information Integrity			√						
ENG 116. Essential Security Planning Policy and Procedures			✓						
ENG 117. Essential Information Security Program Planning			√						
ENG 118. Essential Incident Response			√						
ENG 119. Essential Security Audit and Accountability			√						
ENG 120. Essential Personnel Security Policy and Procedures			√						
ENG 121. Essential Identification and Authentication			√						
ENG 122. Essential Physical and Environmental Protection			√						
ENG 123. Essential Secure Software Engineering Principles			√						
ENG 124. Essential Application Protection			√						
ENG 125. Essential Data Protection			√					√	
ENG 126. Essential Security Maintenance Policies			√						
ENG 127. Essential Media Protection			√						
ENG 150. Meeting Confidentiality, Integrity and Availability Requirements			✓	√	√	√	√	√	
ENG 151. Fundamentals of Privacy Protection		√	1					√	

SECURE DEVELOPMENT					
API 210. Mitigating APIs Lack of Resources & Rate Limiting	✓	✓			
API 211. Mitigating APIs Broken Object Level Authorization	√	√			

SECURE DEVELOPMENT (Continued)									
API 213. Mitigating APIs Mass Assignment		✓	✓						
API 214. Mitigating APIs Improper Asset Management		√	√						
API 351. Securing Kubernetes in the Build and Release Stage		√	✓						
COD 110. Fundamentals Secure Mobile Development	√	√	✓	√	√	√		√	
COD 141. Fundamentals of Database Security				√				√	
COD 152. Fundamentals of Secure Cloud Development	√	✓	✓		√	√	√	✓	
COD 160. Fundamentals of Secure Embedded Software Development	√	✓	√	√	√	√		√	
COD 170. Identifying Threats to Mainframe COBOL Applications and Data	√	✓	√	√	√	√			
COD 201. Secure C Encrypted Network Communications	√	√	√	√					
COD 202. Secure C Run-Time Protection	✓		✓						
COD 206. Creating Secure C++ Code	√	√							
COD 207. Communication Security in C++	√	√	√	1					
COD 214. Creating Secure GO Applications	✓	√							
COD 215. Mitigating .NET Application Vulnerabilities (NEW)		√	√	√					
COD 219. Creating Secure Code SAP ABAP Foundations	✓	√		√					
COD 241. Creating Secure Oracle Database Applications	✓	√	√	1	√	√	√	✓	
COD 242. Creating Secure SQL Server and Azure SQL Database Applications								√	
COD 245. Securing NoSQL Cloud Databases	✓	√	√						✓
COD 246. PCI DSS Requirement 3: Protecting Stored Cardholder Data	✓	√							
COD 247. PCI DSS Requirement 3: Encrypting Transmission of Cardholder Data	√								
COD 248. PCI DSS Requirement 6: Develop & Maintain Secure Systems & Applications	√	√	√	√	√	√			
COD 249. PCI DSS Requirement 11: Regularly Test Security Systems and Processes			√	√	√	√			
COD 251. Defending AJAX-Enabled Web Applications	√	√	√	√	√	√		√	
COD 252. Securing Google Platforms Applications & Data	√	√	√		√	√		√	
COD 253. Creating Secure AWS Cloud Applications	√	√	√		√	√		√	
COD 254. Creating Secure Azure Applications	√	√	√	1	√	√	√	√	
COD 255. Creating Secure Code Web API Foundations	√	√	√		√	√			
COD 256. Creating Secure Code Ruby on Rails Foundations	√	√	√		1	√			
COD 257. Creating Secure Python Web Applications	✓	√	√	1	√	√			
COD 258. Creating Secure PHP Web Applications		√	✓	1	√	√			
COD 259. Node.js Threats and Vulnerabilities	✓	√	✓	1	√	√	√	√	
COD 261. Threats to Scripts	✓	√		√					

SECURE DEVELOPMENT (Continued)									
COD 262. Fundamentals of Shell and Interpreted Language Security	√	√		√					
COD 263. Secure Bash Scripting	√	√		√					
COD 264. Secure Perl Scripting	√	✓		√					
COD 265. Secure Python Scripting	√	√		√					
COD 266. Secure Ruby Scripting	√	√		√					
COD 267. Securing Python Microservices	√	√							
COD 268. Mitigating TypeScript Application Vulnerabilities		√	√	√					
COD 270. Creating Secure COBOL and Mainframe Applications	√	√	√	√	√	√			
COD 283. Java Cryptography	✓	√	√				√	✓	✓
COD 284. Secure Java Coding	√	√	√		√	√	√	√	
COD 285. Developing Secure Angular Applications		√		1					
COD 286. Creating Secure React User Interfaces		√		√					
COD 287. Java Application Server Hardening	√	√	√	1					
COD 288. Java Public Key Cryptogrpahy		√	√						
COD 289. Securing Java Spring APIs	√	√							✓
COD 301. Secure C Buffer Overflow Mitigations	√	√							
COD 302. Secure C Memory Management	✓								✓
COD 303. Common C Vulnerabilities and Attacks	√		√						
COD 304. Principles of C++ Memory Safety		✓	√	√					
COD 305. C++ Secure Memory Management		√	√	√					
COD 306. C++ Memory Safety: Debugging Tools and Techniques		√	√	√					
COD 307. Protecting Data in C++	√	√							
COD 308. Common ASP.NET Vulnerabilities and Attacks	√								
COD 309. Securing ASP.NET MVC Applications	✓	√	√	√	√	√	√		
COD 310. Securing ASP.NET Core Applications	✓	√	√						✓
COD 315. Preventing Vulnerabilities in iOS Code in Swift	✓	√	√	√	√	√			
COD 316. Creating Secure iOS Code in Objective C	√	✓	√	√	√	√	√	√	
COD 317. Protecting Data on iOS in Swift	√	√	√	1	√	√			
COD 318. Protecting Data on Android in Java		√	√	√	√	√		√	
COD 319. Preventing Vulnerabilities in Android Code in Java		√	√	√	√	√			
COD 321. Protecting C# from Integer Overflows and Canonicalization Issues	✓	√							
COD 322. Protecting C# from SQL Injection	✓	√	✓	✓	√	✓	✓	√	

SECURE DEVELOPMENT (Continued)									
COD 323. Using Encryption with C#	√	√	√	√	✓	✓	√	✓	
COD 324. Protecting C# from XML Injection	√	√	√	√	✓	✓	√	✓	
COD 325. Protecting Data in C# for .NET	√	√	√						✓
COD 352. Creating Secure JavaScript and jQuery Code	√	√	√	√	✓	✓			
COD 361. HTML5 Security Threats	√	√	√	√	✓	✓			
COD 362. HTML5 Built-In Security Features	√	√	√	1	√	√			
COD 363. Securing HTML5 Data	√	√	√	1	√	√			
COD 364. Securing HTML5 Connectivity	✓	√	√	1	√	√			
COD 366. Creating Secure Kotlin Applications		√		1					
COD 380. Preventing SQL Injection in Java	✓	√	√						
COD 381. Preventing Path Traversal Attacks in Java	✓	√	√						
COD 382. Protecting Data in Java	✓	√							
COD 383. Protecting Java Backend Services	✓	√	√	1					
COD 384. Protecting Java from Information Disclosure	√	√	√						
COD 385. Preventing Race Conditions in Java Code	√	√	√						
COD 386. Preventing Integer Overflows in Java Code	√	√	√						
DES 207. Mitigating OWASP API Security Top 10		√	√						
DES 208. Defending Against the CSA Top 11 Threats to Cloud			√						
DES 232. Mitigating OWASP 2021 Injection	√	√	√	1					
DES 233. Mitigating OWASP 2021 Identification and Authentication Failures	√	√	√	1					
DES 234. Mitigating OWASP 2021 Cryptographic Failures	√	√	√	1				√	
DES 235. Mitigating OWASP 2021 Insecure Design	√	√	√						
DES 236. Mitigating OWASP 2021 Broken Access Control	√	√	√	1					
DES 237. Mitigating OWASP 2021 Security Misconfiguration	√	√	√	1					
DES 238. Mitigating OWASP 2021 Server-Side Request Forgery (SSRF)	√	√	√						
DES 239. Mitigating OWASP 2021 Software and Data Integrity Failures		√							
DES 240. Mitigating OWASP 2021 Vulnerable and Outdated Components		√	√	1					
DES 241. Mitigating OWASP 2021 Security Logging and Monitoring Failures		√	√	√					
DES 250. Secure Software Acceptance and Deployment			√						
DES 270. Mitigating OWASP Mobile Top 10 Risks	√	√	√						√
DES 271. OWASP M1: Mitigating Improper Platform Usage		√							
DES 272. OWASP M2: Mitigating Insecure Data Storage		√							

SECURE DEVELOPMENT (Continued)					
DES 273. OWASP M3: Mitigating Insecure Communication	✓				
DES 274. OWASP M4: Mitigating Insecure Authentication	✓				
DES 275. OWASP M5: Mitigating Insufficient Cryptography	✓				
DES 276. OWASP M6: Mitigating Insecure Authorization	✓				
DES 277. OWASP M7: Mitigating Client Code Quality	✓				
DES 278. OWASP M8: Mitigating Code Tampering	✓				
DES 279. OWASP M9: Mitigating Reverse Engineering	✓				
DES 280. OWASP M10: Mitigating Extraneous Functionailty	✓				
DES 281. OWASP IoT1: Mitigating Weak, Guessable or Hardcoded Passwords	✓				
DES 282. OWASP IoT2: Mitigating Insecure Network Services	✓				
DES 283. OWASP IoT3: Mitigating Insecure Ecosystem Interfaces	✓				
DES 284. OWASP IoT4: Mitigating Lack of Secure Update Mechanism	✓				
DES 285. OWASP IoT5: Mitigating Use of Insecure or Outdated Components	✓				
DES 286. OWASP IoT6: Mitigating Insufficient Privacy Protection	✓				
DES 287. OWASP IoT7: Mitigating Insecure Data Transfer and Storage	✓			√	
DES 288. OWASP IoT8: Mitigating Lack of Device Management	✓				
DES 289. OWASP IoT9: Mitigating Insecure Default Settings	✓				
DES 290. OWASP IoT10: Mitigating Lack of Physical Hardening	✓				
DES 361. Mitigating LCNC (Low-Code/No-Code) Account Impersonation	✓	✓			
DES 362. Mitigating LCNC (Low-Code/No-Code)) Authorization Misuse	✓	√			
DES 364. Mitigating LCNC Authentication and Secure Communication Failures	✓	√			

SECURE DESIGN									
CYB 210. Cybersecurity Incident Response			√						
CYB 211. Identifying and Protecting Assets Against Ransonmware			√						
CYB 212. Fundamentals of Security Information & Event Management (SIEM)			√						
DES 101. Fundamentals of Secure Architecture			√	√	√			√	
DES 151. Fundamentals of the PCI Secure SLC Standard	√		√	√					
DES 202. Cryptographic Suite Services: Encoding, Encrypting and Hashing	√	✓	√	√	√	√	√	✓	
DES 203. Cryptographic Components: Randomness, Algorithms, & Key Management	√								
DES 204. The Role of Cryptography in Application Development	√	✓	√	√	√	✓	√	✓	
DES 205. Message Integrity Crytographic Functions	√								

SECURE DESIGN (Continued)									
DES 206. Meeting Cloud Governance and Compliance Requirements			√						
DES 209. Authentication and Lifecycle Management			√						
DES 255. Securing the IoT Update Process		√	√						
DES 262. Securing Enterprise Low-Code Application Platforms			√						
DES 305. Blockchain Security - Protecting Existing Blockchain Assets	√	√	√	√				✓	
DES 311. Creating Secure Application Architecture			√	√	√	✓		✓	
DES 312. Protecting Cardholder Data				√					
DES 313. Hardening a Kubernetes Cluster			√						
ENG 191. Introduction to the Microsoft SDL			√	√	√	√			
ENG 192. Implementing the MS SDL Optimization Model			√	√	√	√		√	
ENG 193. Implementing the Agile MS SDL			√	√	√	√		√	
ENG 194. Implementing MS SDL Line of Business			√	√	√	√		√	
ENG 195. Implementing the MS SDL Threat Modeling Tool			√	√	√	√		√	
ENG 205. Fundamentals of Threat Modeling								√	
ENG 211. How to Create Application Security Design Requirements		√							
ENG 212. Implementing Secure Software Operatiions	√	√	√	√					
ENG 251. Risk Management Foundations			√						
ENG 311. Attack Surface Analysis and Reduction		√		√				√	
ENG 312. How to Perform a Security Code Review	√	√	√	√	√	√		✓	
ENG 320. Using Software Composition Analysis to Secure Open-Source Components	√	√	√	√					
ENG 351. Preparing the Risk Management Framework			✓						
ENG 352. Categorizing Systems and Information within the RMF			✓	√				✓	
ENG 353. Selecting, Implementing, and Assessing Controls within the RMF		√	√	√				✓	
ENG 354. Authorizing and Monitoring System Controls within the RMF		√	√	√				√	

INFRASTRUCTURE SECURITY									
API 250. Controlling Access to the Kubernetes API		1	√						
API 251. Implementing Web Application and API Protection (WAAP)		1	√						
API 351. Securing Kubernetes in the Build and Release Stage		✓	√						
DES 210. Hardening Linux/Unix Systems	√	1	√	1				√	
DES 212. Architecture Risk Analysis and Remediation		✓	√	1	√	√	√	√	
DES 214. Securing Infrastructure Architecture			√	1	√	√	√	√	

INFRASTRUCTURE SECURITY (Continued)									
DES 215. Defending Infrastructure			√	√	√	√	√	√	
DES 216. Protecting Cloud Infrastructure			√	√	√	√	√	√	
DES 217. Securing Terraform Infrastructure and Resources			√						
DES 218. Protecting Microservices, Containers, and Orchestration			√	1	√	√	√	√	
DES 219. Securing Google's Firebase Platform			√		√				
DES 260. Fundamentals of IoT Architecture and Design	1	√	√	1	√	√	√	1	
DES 261. Securing Serverless Environments		√	√						
DES 306. Creating a Secure Blockchain Network	1	√	√	1				√	
DES 314. Hardening the Docker Engine			√						
ICS 210. ICS/SCADA Security Essentials			√						
ICS 310. Protecting Information and System Integrity in Industrial Control System Environments			1						

DevSecOps					
CYB 213. Generative AI Privacy & Cybersecurity Risk			✓		✓
CYB 310. Using Cyber Supply Chain Risk Management to Mitigate Threats to IT/OT			✓		
CYB 311. Threat Analysis with Artificial Intelligence			✓		
DSO 201. Fundamentals of Secure DevOps			√	✓	
DSO 205. Securing the COTS Supply Chain	√	√	✓		
DSO 206. Securing the Open Source Software Supply Chain		√	✓		
DSO 211. Identifying Threats to Containers and Data in a DevSecOps Framework	√	√	✓	✓	
DSO 212. Fundamentals of Zero Trust Security			✓		
DSO 253. DevSecOps in the AWS Cloud		✓	✓		✓
DSO 254. DevSecOps in the Azure Cloud		√	✓		✓
DSO 256. DevSecOps in the Google Cloud Platform		√	✓		✓
DSO 301. Orchestrating Secure System and Service Configuration		√	✓	✓	
DSO 302. Automated Security Testing			✓	✓	
DSO 303. Automating Security Updates	√		✓	✓	
DSO 304. Securing API Gateways in a DevSecOps Framework	✓	√	✓		
DSO 305. Automating CI/CD Pipeline Compliance		√	✓		✓
DSO 306. Implementing Infrastructure as Code			✓		
DSO 307. Secure Secrets Management			✓	✓	

SECURITY TESTING									
ATK 201. Fundamentals of Security Testing			✓	✓					✓
CYB 250. Cyber Threat Hunting: Tactics, Techniques, and Procedures (TTP)			✓						✓
CYB 301. Fundamentals of Ethical Hacking			✓	✓					✓
SDT 301. Testing for Injection	✓	✓	✓	✓	✓	✓	✓	✓	
SDT 302. Testing for Identification and Authentication Failures	✓	✓	✓	✓	✓	✓	✓	✓	
SDT 303. Testing for Cryptographic Failures	✓	✓	✓	✓	✓	✓	✓	✓	
SDT 304. Testing for Insecure Design	✓	✓	✓	✓	✓	✓	✓	✓	
SDT 305. Testing for Broken Access Control	✓	✓	✓	✓	✓	✓	✓	✓	
SDT 306. Testing for Security Miscconfiguration	✓	✓	✓	✓	✓	✓	✓	✓	
SDT 307. Testing for Server-Side Request Forgery	✓	✓	✓	✓	✓	✓	✓	√	
SDT 308. Testing for Software and Data Integrity Failures	✓	✓	✓	1	✓	✓	✓	✓	
SDT 309. Testing for Vulnerable and Outdate Components	✓	✓	✓	1	✓	✓	✓	✓	
SDT 310. Testing for Security Logging and Monitoring Failures		✓	✓	1	✓	✓	✓	✓	
SDT 311. Testing for Integer Overflow or Wraparound	✓	√	✓	1					
SDT 312. Testing for Path Traversal	✓								
SDT 313. Testing for Cross Site Request Forgery	✓								
SDT 314. Testing for Unrestricted Upload of File with Dangerous Type	✓	✓							
SDT 315. Testing for Incorrect Permission Assignment for Critical Resource	✓	✓							
SDT 316. Testing for Use of Hard-Coded Credentials	✓								
SDT 317. Testing for Improper Control of Generation of Code ("Code Injection")	✓	√		1					
SDT 318. Testing for Insufficiently Protected Credentials	1	√		✓					
SDT 319. Testing for Out-of-bound Read	✓	√		✓					
SDT 320. Testing for Out-of-bounds Write	✓	√		✓					
SDT 321. Testing for Uncontrolled Resource Consumption	✓	√		1					
SDT 322. Testing for Improper Privilege Management	✓	√		✓					
SDT 323. Testing for Improper Input Validation	✓	√		✓					
SDT 324. Testing for Improper Restriction of Operations within the Bounds of a Memory Buffer	✓	✓		✓					
SDT 325. Testing for NULL Pointer Dereference	✓	✓		✓					
SDT 326. Testing for Use After Free	✓	✓		✓					
TST 101. Fundamentals of Security Testing	✓	✓	✓	√	✓	✓			
TST 202. Penetration Testing Fundamentals	✓	✓	✓						
TST 205. Performing Vulnerability Scans	✓		✓						

SECURITY TESTING (Continued)						
TST 206. ASVS Requirements for Developers		✓		✓		
TST 301. Infrastructure Penetration Testing	✓		✓	✓		✓
TST 302. Application Penetration Testing	✓		✓	✓		✓
TST 303. Penetration Testing for Google Cloud Platform			✓			
TST 304. Penetration Testing for AWS Cloud			✓			
TST 305. Penetration Testing for Azure Cloud			✓			
TST 351. Penetration Testing for TLS Vulnerabilities	✓	√	✓			
TST 352. Penetration Testing for Injection Vulnerabilities	✓	√	✓			
TST 353. Penetration Testing for SQL Injection		√				
TST 354. Penetration Testing for Memory Corruption Vulnerabilities	✓		✓			
TST 355. Penetration Testing for Authorization Vulnerabilities	✓	✓	✓			
TST 356. Penetration Testing for XSS	✓	✓				
TST 357. Penetration Testing for Hardcoded Secrets	✓		✓			
TST 358. Penetration Testing Wireless Networks	✓		✓			
TST 359. Penetration Testing Network Infrastructure	✓		✓			
TST 360. Penetration Testing for Authentication Vulnerabilities	✓		✓			

LEARN LABS					
LAB 111. Identifying Server-Side Request Forgery	✓	✓	✓		✓
LAB 113. Identifying Cryptographic Failures	✓	✓	✓		✓
LAB 114. Identifying Cookie Tampering	✓	✓	✓		✓
LAB 115. Identifying Reflective Cross-Site Scripting (XSS)	✓	✓	✓		✓
LAB 116. Identifying Forceful Browsing	✓	✓	✓		✓
LAB 117. Identifying Hidden Form Field	✓	✓	✓		✓
LAB 118. Identifying Weak File Upload Validation	✓	✓	✓		✓
LAB 119. Identifying Persistent Cross-Site Scripting (XSS)	✓	✓	✓		✓
LAB 120. Identifying XML Injection	✓	✓	✓		✓
LAB 121. Identifying Vulnerable and Outdated Components		✓	✓		✓
LAB 122. Identifying Insecure APIs		✓	✓		✓
LAB 123. Identifying Vertical Privilege Escalation		✓	1		✓
LAB 124. Identifying Horizontal Privilege Escalation	✓	✓	✓		✓
LAB 125. Identifying Buffer Overflow	✓	✓	√		✓

LEARN LABS (Continued)						
LAB 126. Identifying Information Leakage	✓	✓	✓			✓
LAB 127. Identifying Security Logging and Monitoring Failures	✓	✓				
LAB 128. Identifying Unverified Password Change	✓	✓				
LAB 129. Identifying Error Message Containing Sensitive Information	✓	✓				
LAB 130. Identifying Generation of Predictable Numbers or Identifiers	✓	✓				
LAB 131. Identifying Improper Restriction of XML External Entity Reference	✓	✓				✓
LAB 132. Identifying Exposed Services						✓
LAB 133. Identifying Exposure of Sensitive Information Through Environmental Variables	✓	✓	✓			✓
LAB 134. Identifying Plaintext Storage of a Password	✓	✓	✓			✓
LAB 135. Identifying URL Redirection to Untrusted Site	✓	✓	✓			✓
LAB 136. Identifying Improper Neutralization of Script in Attributes in a Web Page	✓	✓	✓			✓
LAB 137. Identifying Improper Authorization	✓	✓	✓			✓
LAB 138. Identifying Authorization Bypass Through User-Controlled Key	✓	✓	✓			
LAB 139. Identifying Use of a Key Past its Expiration Date	✓	✓	✓			✓

SKILL LABS					
LAB 201. Defending Java Applications Against Canonicalization	√		1		
LAB 202. Defending Python Applications Against Canonicalization	√		1		
LAB 203. Defending C# Applications Against Canonicalization	√		√		
LAB 204. Defending Node.js Applications Against Canonicalization	√		1		
LAB 205. Defending Java Applications Against XPath Injection		√	1		
LAB 206. Defending Python Applications Against XPath Injection		√	✓		
LAB 207. Defending Node.js Applications Against XPath Injection		√	✓		
LAB 208. Defending C# Applications Against XPath Injection		√	1		
LAB 211. Defending Java Applications Against Credentials in Code Medium	√	√	1		√
LAB 212. Defending Python Applications Against Credentials in Code Medium	√	√	√		1
LAB 213. Defending Node.js Applications Against Credentials in Code Medium	√	√	√		✓
LAB 214. Defending C# Applications Against Credentials in Code Medium	√	√	√		✓
LAB 215. Defending Java Applications Against Business Logic Error for Input Validation	√	√	√		√
LAB 216. Defending Python Applications Against Business Logic Error for Input Validation	√	√	✓		√
LAB 217. Defending Node.js Applications Against Business Logic Error for Input Validation	✓	√	1		√

SKILL LABS (Continued)						
LAB 218. Defending C# Applications Against Business Logic Error for Input Validation	✓	√	√			✓
LAB 220. Defending Against Hard-Coded Secrets (HTML5)	✓	√				
LAB 221. Defending C# Against SQL Injection	✓	√	✓			
LAB 222. Defending Python Against SQL Injection	✓	√	✓			
LAB 223. Defending Node.js Against SQL Injection	✓	√	✓			
LAB 224. Defending Java Applications Against Forceful Browsing	✓	√	✓			✓
LAB 225. Defending Python Applications Against Forceful Browsing	✓	√	✓			✓
LAB 226. Defending Node.js Applications Against Forceful Browsing	✓	√	√			✓
LAB 227. Defending C# Applications Against Forceful Browsing	✓	√	√			✓
LAB 228. Defending Java Applications Against Weak AES ECB Mode Encryption	✓	√				
LAB 229. Defending Java Applications Against Weak PRNG	✓	√				
LAB 230. Defending Java Against Cross-Site Scripting (XSS)	✓	√				
LAB 231. Defending Python Against Cross-Site Scripting (XSS)	✓	√				
LAB 232. Defending C# Against Cross-Site Scripting (XSS)	✓	√				
LAB 233. Defending Node.js Against Cross-Site Scripting (XSS)	✓	√				
LAB 234. Defending Java Applications Against Parameter Tampering	✓	√	√			
LAB 235. Defending Java Applications Against Plaintext Password Storage	✓	√	√			
LAB 236. Defending Java Applications Against Sensitive Information in Error Messages	✓	√				
LAB 237. Defending Java Against SQL Injection	✓	√				
LAB 238. Defending C# Applications Against Weak AES ECB Mode Encryption	✓	√	√			
LAB 239. Defending C# Applications Against Weak PRNG	✓	√	√			
LAB 240. Defending Java Against ExternalXML Entity Vulnerabilities	✓	√	√			
LAB 241. Defending C# Against ExternalXML Entity Vulnerabilities	✓	√	√			
LAB 242. Defending Node.js Against ExternalXML Entity Vulnerabilities	✓	√	√			
LAB 243. Defending Python Against ExternalXML Entity Vulnerabilities	✓	√	√			
LAB 244. Defending Java Against Security Misconfiguration	✓	√	√			
LAB 245. Defending Node.js Applications Against Plaintext Password Storage	✓	√	√			
LAB 246. Defending Node.js Applications Against Weak AES ECB Mode Encryption	✓	√	√			
LAB 247. Defending Node.js Applications Against Weak PRNG	√	√	√			
LAB 248. Defending Node.js Applications Against Parameter Tampering	√	√	√			
LAB 249. Defending Python Applications Against Plaintext Password Storage	✓	√	√			
LAB 250. Defending C# Applications Against Parameter Tampering	✓	√	√			

SKILL LABS (Continued)						
LAB 251. Defending C# Applications Against Plaintext Password Storage	√	√	√			
LAB 252. Defending Python Applications Against Weak AES ECB Mode Encryption	√	√	✓			
LAB 253. Defending Python Applications Against Weak PRNG	√	√	√			
LAB 254. Defending Python Applications Against Parameter Tampering	✓	√	✓			
LAB 260. Defending C# Applications Against Sensitive Information in Error Messages	√	√				
LAB 261. Defending Python Applications Against Sensitive Information in Error Messages	✓	√				
LAB 262. Defending Node.js Applications Against Sensitive Information in Error Messages	√	√				
LAB 263. Defending Java Applications Against Sensitive Information in Log Files	√	√				
LAB 264. Defending Python Applications Against Sensitive Information in Log Files	√	√				
LAB 265. Defending Node.js Applications Against Sensitive Information in Log Files	√	√				
LAB 266. Defending C# Applications Against Sensitive Information in Log Files	√	√				
LAB 267. Defending Java Applications Against Deserialization of Untrusted Data	√	√				
LAB 268. Defending Python Applications Against Deserialization of Untrusted Data	√	√				
LAB 269. Defending Node.js Applications Against Deserialization of Untrusted Data	√	√				
LAB 270. Defending C# Applications Against Deserialization of Untrusted Data	√	√				
LAB 271. Defending Java Applications Against SSRF	√	√				
LAB 272. Defending Python Applications Against SSRF	√	√				
LAB 273. Defending Node.js Applications Against SSRF	√	√				
LAB 274. Defending C# Applications Against SSRF	√	√				
LAB 275. Defending Java Applications Against Command Injection	✓	√	√			
LAB 276. Defending Python Applications Against Command Injection	√	√	√			
LAB 277. Defending Node.js Applications Against Command Injection	√	√	√			
LAB 278. Defending C# Applications Against Command Injection	✓	√	√			
LAB 279. Defending Java Applications Against Dangerous File Upload	√	√	√			
LAB 280. Defending Python Applications Against Dangerous File Upload	√	√	√			
LAB 281. Defending Node.js Against Dangerous File Upload	√	√	√			
LAB 282. Defending C# Applications Against Dangerous File Upload	√	√	√			
LAB 283. Defending Java Applications Against RegEx DoS	√	√	√			
LAB 284. Defending Python Applications Against RegEx DoS	√	√	√			
LAB 285. Defending Node.js Applications Against RegEx DoS	√	√	√			
LAB 286. Defending C# Applications Against RegEx DoS	√	✓	√			

SKILL LABS (Continued)					
LAB 287. Defending Java Applications Against Null Pointer Dereference	√	√	√		
LAB 288. Defending C# Applications Against Null Pointer Dereference	1	√	√		
LAB 289. Defending Java Applications Against Path Traversal	1	√	√		
LAB 290. Defending Python Applications Against Path Traversal	1	√	√		
LAB 291. Defending Node.js Applications Against Path Traversal	✓	√	✓		
LAB 292. Defending C# Applications Against Path Traversal	✓	√	✓		
LAB 293. Defending Java Applications Against Integer Overflow	1	√	✓		
LAB 294. Defending C# Applications Against Integer Overflow	1	√	✓		
LAB 301. Defending Java Applications Against Open Redirect	✓	√			✓
LAB 302. Defending Python Applications Against Open Redirect	✓	√			✓
LAB 303. Defending C# Applications Against Open Redirect	✓	√			✓
LAB 304. Defending Node.js Applications Against Open Redirect	✓	√			✓
LAB 305. Defending Java Applications Against Weak Password Reset	✓	√			✓
LAB 306. Defending Python Applications Against Weak Password Reset	✓	√			✓
LAB 307. Defending C# Applications Against Weak Password Reset	✓	√			✓
LAB 308. Defending Node.js Applications Against Weak Password Reset	✓	✓			✓
LAB 309. Defending TypeScript Applications Against Unrestricted Upload of File with Dangerous Type	✓	√			✓
LAB 314. Defending TypeScript Applications Against SSRF	✓	√			✓
LAB 316. Defending TypeScript Applications Against Hard-coded Credentials	✓	√			✓
LAB 320. Defending TypeScript Applications Against Code Injection	✓	√			✓
LAB 325. Defending TypeScript Applications Against CSRF	✓	√			✓
LAB 326. Defending TypeScript Applications Against Path Traversal	✓	✓			✓
LAB 327. Defending C Applications Against Path Traversal	✓	✓			✓
LAB 328. Defending C++ Applications Against Path Traversal	✓	✓			✓
LAB 329. Defending Go Applications Against SSRF	✓	√	✓		
LAB 333. Defending Go Applications Against Hard-coded credentials	✓	✓	✓		
LAB 338. Defending Go Applications Against CSRF	✓	✓	✓		
LAB 339. Defending Go Applications Against Path Traversal	✓	✓	✓		
LAB 340. Defending C Applications Against Use After Free	√	✓	✓		
LAB 341. Defending C ++ Applications Against Use After Free	✓	✓	✓		
LAB 342. Defending TypeScript Applications Against Command Injection	✓	✓	✓		
LAB 343. Defending GO Applications Against Command Injection	✓	✓	✓		

SKILL LABS (Continued)					
LAB 344. Defending TypeScript Applications Against Incorrect Authorization	✓	√	√		
LAB 345. Defending GO Applications Against Incorrect Authorization	✓	√	✓		
LAB 346. Defending TypeScript Applications Against Deserialization of Untrusted Data	✓	√	✓		
LAB 347. Defending C Applications Against Null Pointer Dereference.	✓				
LAB 348 - Defending C++ Applications Against Null Pointer Dereference	✓				✓
LAB 349- Defending TypeScript Applications Against SQL Injection	✓	√			✓
LAB 350. Defending Go Applications Against SQL Injection	✓	√			✓
LAB 351. Defending TypeScript Applications Against Cross-Site Scripting	✓	√			✓
LAB 352. Defending Go Applications Against Cross-Site Scripting	√	√			✓
LAB 353. Defending TypeScript Applications Against Improper Authentication	√	√			✓
LAB 354. Defending Go Applications Against Improper Authentication	1	√			✓
LAB 355. Defending C Applications Against Stack-based Buffer Overflow	✓				✓
LAB 356. Defending Python APIs from Broken Object Level Authorization		√			
LAB 357. Defending Python APIs from Broken Authentication		√			
LAB 358. Defending Python APIs from Broken Object Property Level Authorization		√			
LAB 359. Defending Python APIs from Unrestricted Resource Consumption		√			
LAB 360. Defending Python APIs from Broken Function Level Authorization		√			
LAB 361. Defending Python APIs from Unrestricted Access to Sensitive Business Flows		√			
LAB 362. Defending Python APIs from Server Side Request Forgery		√			
LAB 363. Defending Python APIs from Security Misconfiguration		√			
LAB 364. Defending Python APIs from Improper Inventory Management		√			
LAB 365. Defending Python APIs from Unsafe Consumption of APIs		√			
LAB 610. ATT&CK: File and Directory Permissions Modification	✓	√	√		✓
LAB 611. ATT&CK: File and Directory Discovery	1	√	√		✓
LAB 612. ATT&CK: Testing for Network Services Identification			√		✓
LAB 613. ATT&CK: Testing for Vulnerability Identification Using Vulnerability Databases			√		✓
LAB 615. ATT&CK: Updating Vulnerable Java Web Application Server Software	1	√	√		✓
LAB 616. ATT&CK: Host Vulnerability Scanning			√		✓
LAB 617. ATT&CK: Testing for Plaintext Secrets in Files			√		✓
LAB 618. ATT&CK: Log Analysis			√		✓
LAB 619. ATT&CK: Exfiltration Over C2 Channel			√		✓
LAB 620. ATT&CK: Exploitation of Remote Services (Advanced)			√		√

SKILL LABS (Continued)					
LAB 621. ATT&CK: Password Cracking	✓	√			✓
LAB 622. ATT&CK: Exploiting Windows File Sharing Server with External Remote Services		✓			✓
LAB 623. ATT&CK: Exploiting Vulnerable Java Web Application Server Software	✓	✓	✓		✓
LAB 624. ATT&CK: Exploiting Java Web Application Server Misconfiguration	✓	✓	✓		✓
LAB 625. ATT&CK: Exploit Public-Facing Application (Advanced)			✓		✓
LAB 626. Using an Exploit Framework for SQL Injection	✓	✓	✓		✓
LAB 627. Using an Exploit Framework for Port Scanning			✓		✓
LAB 628. Using an Exploit Framework for SMB Version Scanning			✓		✓
LAB 629. Using an Exploit Framework for SNMP Scanning			✓		✓
LAB 630. ATT&CK: Exploiting Java SQL Injection to Extract Password Hashes	✓	√			✓
LAB 631. ATT&CK: Network Service Discovery	✓	√			✓
LAB 632. ATT&CK: Network Share Discovery	✓	✓			✓
LAB 633. Using an Exploit Framework for Web Application Scanning			✓		✓
LAB 634. ATT&CK: Create Account	✓	✓			✓
LAB 635. ATT&CK: Unsecured Credentials	✓	✓			✓
LAB 636. ATT&CK: Data from Local System					✓
LAB 637. ATT&CK: Valid Accounts					✓
LAB 638. Using Mimikatz			✓		✓
LAB 639. Using an Exploit Framework via Command Line Interface			✓		✓
LAB 640. ATT&CK: Search Victim-Owned Websites					✓
LAB 641. ATT&CK: Password Policy Discovery					√
LAB 642. ATT&CK: Permission Groups Discovery					✓

^{*}Our NIST courses that map to 800-53 and 800-171 publications. To understand how courses map to specific requirements, please contact us.

