DARK WEB

FOUNDATION

Exam Syllabus

SECO INSTITUTE

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Context

The SECO-Institute's Dark Web Foundation course gives students a thorough grounding in the subjects they need to understand to safely access and navigate the Dark Web. Following an overview of the history of the Dark Web, the course introduces students to Tor, Dark Markets, Dark Web investigations, Bitcoin, blockchain technologies, and Bitcoin money-laundering. The course material was developed in cooperation with the Netherlands Institute for Scientific Research (TNO).

Target audience

The training is intended for all those who are interested in any aspect of IT or national security, and aspire to counter cyberthreats and criminal activities that evolve on the hidden part of the web.

Exam information

The SECO-Institute offers its official Dark Web Foundation courseware through accredited training centres where candidates are trained by accredited instructors. Candidates can take their exams at an accredited exam centre or book an exam directly with the SECO-Institute.

Attending a course is not a prerequisite for taking an exam.

Examination details

- Computer-based
- 40 multiple-choice questions
- Time allotted: 60 minutes
- Pass mark: 60% (60 points out of 100 points)
- Open book/notes: not permitted
- Electronic equipment: not permitted

Rules to be observed by candidates: The SECO-Institute's Examination Rules and Regulations

(https://www.seco-institute.org/html/filesystem/storeFolder/10/General-Terms-and-Conditions-for-participation-in-SECO-Institute-exams-2017-11.pdf)

Exam requirements

The following tables list the exam requirements and exam specifications.

Dark Web Foundation								
Requirements	1. Introduction to the history of the Dark Web 2. Technical aspects of the Dark Web and Dark Web investigations 3. Bitcoin and blockchains							
Required prior Knowledge/experience	No prior experience or knowledge is required.							
Learning levels	Know	x	Understand	x	Apply		Analyse, Synthesise		Create	

Exam specifications

Bloom level
1. Know
2. Understand

	Requirements, specifications, testing levels			level
1.	**Introduction to the history of the Dark Web**			
	1.1	The candidate understands the background and origins of the Dark Web		2
		The candidate is able to:		
		1.1.1	Explain how the Dark Web came into existence	1
		1.1.2	Explain who financed the underlying projects and why	2
		1.1.3	List the privacy tools that constitute the foundation of the Dark Web and explain how they work	2
		1.1.4	Explain why there was a need for real privacy and how this resulted in the Tor-project	2
		1.1.5	Explain what makes the Dark Web interesting for legal and illegal use	2
	1.2	The candidate understands the history of the Dark Web		2
		The candidate is able to:		
		1.2.1	Explain the difference between the Clear Web, the Deep Web and the Dark Web	1
		1.2.2	Name important events in the history of the Dark Web	1
		1.2.3	Define basic terms relating to the Dark Web	1
	1.3	The candidate can describe various types of hidden services and markets that can be found on the Dark Web		2
		The candidate is able to:		
		1.3.1	Recall important markets that have been found on the Dark Web	1

		1.3.2	Explain what a hidden service is	2
		1.3.3	Summarise how a hidden service or market can be found	2
		1.3.4	Explain for what purposes hidden markets can be used	2
		1.3.5	Explain how to install and use the Tor browser	2
		1.3.6	Describe Dark Market business models	2

		Requirements, specifications, testing levels	level
2.		**Technical aspects of the Dark Web and Dark Web investigations**	
	2.1	The candidate understands basic networking concepts that are relevant to the use of the internet and the Dark Web, such as TCP/IP protocols, PKI, proxies and PGP	2
		The candidate is able to:	
		2.1.1	Summarise the main functions of TCP/IP and the proxies that are relevant to privacy on the internet and therefore relevant to the Dark Web design	2
		2.1.2	Briefly describe what PKI and PGP are and how they are used by Dark Web users	2
		2.1.3	Explain in what ways these technologies are used to create trust in an anonymous environment	2
	2.2	The candidate has a basic understanding of how the dark web is used for illegal activities, such as illegal marketplaces / Dark Markets	2
		The candidate is able to:	
		2.2.1	Explain how to connect to, and navigate through, the Dark Web	2
		2.2.2	Summarise what information can be found on Dark Markets and how the information can be used	2
	2.3	The candidate has a basic understanding of The Onion Router (Tor) and how it is used to create and access the Dark Web	2
		The candidate is able to:	
		2.3.1	Summarise how the Tor browser is used to browse the Dark Web	2
		2.3.2	Explain information on Tor routing and privacy-hiding aspects found in the Tor browser (e.g. routing information, rendezvous points, exit node)	2
		2.3.3	Explain perfect secrecy forwarding (the layers of the onion)	2
	2.4	The candidate has a basic understanding of the business dynamics of Dark Markets	2
		The candidate is able to:	
		2.4.1	Summarise how to buy and sell goods and services on Dark Markets	2
		2.4.2	Explain the dynamics of Dark Web communities and reputation building	2
		2.4.3	Summarise the importance of customer care on Dark Markets	2
		2.4.4	Explain Dark Market marketing strategies	2

		Requirements, specifications, testing levels		level
3.		**Bitcoin and Blockchain**		
	3.1	The candidate has a basic understanding of how blockchain technologies work		2
		The candidate is able to:		
		3.1.1	Summarise what makes up a block	2
		3.1.2	Summarise how the blocks are chained	2
		3.1.3	Summarise the role of miners	2
	3.2	The candidate has a basic understanding of how Bitcoin works		2
		The candidate is able to:		
		3.2.1	Summarise what Bitcoin is	2
		3.2.2	Explain what a wallet is	2
		3.2.3	Recall the different types of wallets and their properties	2
		3.2.4	Explain what Alt coins and Privacy coins are	2
	3.3	The candidate has a basic understanding of how Bitcoin is used in money laundering and payments		2
		The candidate is able to:		
		3.3.1	Recall the stages of money laundering	1
		3.3.2	Describe different Bitcoin laundering schemes	2
		3.3.3	Recall what a mixing service does	1

Literature

Required	Course material
Optional	Publications listed in the Goody Bag (see last section of course material)

How to book your exam

All our exams are delivered through an online examination system called ProctorU. To enrol for an exam, go to: https://go.proctoru.com/

Make sure you are well-prepared. Use the ProctorU Preparation checklist to assess whether you are ready to take the exam.

If you are a new user, select Test Taker. Select "SECO-Institute" as the institution and fill in all the necessary information. See the instructions for more information. Once you have scheduled your exam, you will be asked to pay the exam fee. If you have an exam voucher, please fill in the access code.

Our online examination system allows you to book and take exams at your convenience. Do you prefer your kitchen table, your home desk or your office? Would you rather take a test in the day or at night? It is all up to you!

System requirements

To ensure the quality and security of the examination, you will have to meet specific requirements regarding your computer configuration, your exam environment and your behaviour during the exam. Click here to see the requirements.

The exam will be taken with special proctor software. To enable webcam and audio recording during the exam, you have to install software that monitors your activities.

Your exam will be recorded through your webcam and microphone. The recordings will be reviewed by multiple proctors after you have completed the exam. The proctors will check if you comply with all the requirements for the examination.

Results

If no non-conformities are detected by the proctors, you will receive the final result by email one month after completing the test. The email will contain information on how to claim your certificate and digital badge, and how to use your title.

Digital badges

SECO-Institute and digital badge provider Acclaim have partnered to provide certification holders with a digital badge of their SECO-Institute certification. Digital badges can be used in email signatures as well as on personal websites, social media sites such as LinkedIn and Twitter, and electronic copies of resumes. Digital badges enable certification holders to convey to employers, potential employers and other interested parties the skills they have acquired to earn and maintain a specialised certification.

Claim your title at: https://www.seco-institute.org/claim-your-title

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