

## Cyber Security and Digital Forensics

**HANDBOOK**  
**Cyber Security and**  
**Digital Forensics**

[1]

**Level 2**  
**Certificate**  
(Ofqual Register Link)

[2]

**RQF LEVEL**  
**DESCRIPTORS**

[3]

**Please note: guidance is being added over the next few days, but is in the handbook already.**

Support also available through [Cisco](#) [4] [Introduction to Cybersecurity](#) [5] and [Cybersecurity Essentials](#) [6].

### Level 2

## Level 2, Unit 1 - Understanding Cyber Security and Online Threats (3 credits)

### 1. Understand the range and variety of cyber threats

[1.1 I can explain the basic nature of a cyber threat](#) [7]

[1.2 I can list some of the more common threats](#) [10]

[1.3 I can explain the main features of threats to individuals](#) [13]

[1.4 I can explain the main features of threats to companies](#) [16]

[1.5 I can summarise the](#)

### 2. Analyse and detail the types of threat currently in operation

[2.1 I can describe the motivations of people behind threats](#) [8]

[2.2 I can analyse the main threats in terms of the mechanisms they use](#) [11]

[2.3 I can describe how the features of threats make them operate](#) [14]

[2.4 I can describe how attacks on companies are designed to work](#) [17]

[2.5 I can describe threats](#)

### 3. Evaluate the impact of threats on various individuals and organisations

[3.1 I can describe the impact on the economy of cyber threats](#) [9]

[3.2 I can assess the level of threat to my home environment](#) [12]

[3.3 I can determine the threat to a website in a safe and controlled environment](#) [15]

[3.4 I can determine the threat to a server in a safe and controlled environment](#) [18]

[3.5 I can produce a](#)

[variety of threats for an audience](#) [19]

[in terms of their hierarchy of damage](#) [20]

[presentation or report on my findings](#) [21]

## Level 2, Unit 2 - Analysing and Evaluating Cyber Threats (3 credits)

### 1. Understand the parts of a system that are attacked

[1.1 I can understand the basics of the OSI model](#) [23]

[1.2 I can explain the main hardware features of an IT system](#) [26]

[1.3 I can explain the main software features of an IT system](#) [29]

[1.4 I can understand the different user services that run on systems, such as email](#) [32]

[1.5 I can list the main ports used for different services](#) [35]

### 2. Analyse and detail the parts of a system that are attacked

[2.1 I can analyse the commonplace threats associated with the upper layers of OSI model](#) [24]

[2.2 I can describe the hardware features that protect an IT system](#) [27]

[2.3 I can describe the software features that protect an IT system](#) [30]

[2.4 I can describe the key services offered by a server](#) [33]

[2.5 I can analyse the function of each port used on a server in relation to the key services](#) [36]

### 3. Evaluate how and why systems are attacked

[3.1 I can evaluate how the different layers of the OSI model can be attacked](#) [25]

[3.2 I can evaluate how effective the hardware protection services are for an IT system](#) [28]

[3.3 I can evaluate how effective the software protection services are for an IT system](#) [31]

[3.4 I can assess the vulnerabilities of each service offered on a server](#) [34]

[3.5 I can evaluate the vulnerabilities of each key service running on a server](#) [37]

## Level 2, Unit 3 - Applying and Deploying Security Tools and Best Practice (3 credits)

### 1. Understand the tools used for cyber security

### 2. Plan, use and practice with common cyber forensic tools

### 3. Evaluate the tools used and recommend best practices

[1.1 I can list the main tools used in cyber security](#) [39]

[2.1 I can explain the main features of valid cyber security tools](#) [40]

[3.1 I can evaluate commonly used cyber security tools for overall effectiveness](#) [41]

[1.2 I can explain the tools used to protect personal identity](#) [42]

[2.2 I can select and use tools to protect my personal identity](#) [43]

[3.2 I can evaluate the tools selected for the protection of personal identity](#) [44]

[1.3 I can list the range of tools used to protect data](#) [45]

[2.3 I can set-up a range of tools to protect data for myself or others](#) [46]

[3.3 I can assess and recommend different tools to protect personal or organisational data](#) [47]

[1.4 I can describe the way devices are compromised](#) [48]

[2.4 I can plan and execute a basic set of tasks to protect a device against attack](#) [49]

[3.4 I can assess and recommend a range of tools to protect different devices](#) [50]

[1.5 I can describe the need for policies and procedures in cyber security](#) [51]

[2.5 I can plan and design some how to documents for protecting devices, data and personal identity](#) [52]

[3.5 I can evaluate and recommend policies and procedures for efficient and effective cyber security](#) [53]

[1.6 I can list a range of laws that apply to cyber crime](#) [54]

[2.6 I can explain the purpose of laws that deal with cyber crime](#) [55]

[3.6 I can assess the effectiveness of current laws on cyber crime](#) [56]

## Level 2, Unit 4 - Extended Project: Securing and Defending Online Systems (6 credits)

**1. Research a working cyber security system**

**2. Plan to build a cyber safe web site or server**

**3. Develop a cyber safe web site or server**

**4. Test the system against common threats**

**5. Evaluate the effectiveness of the system**

[1.1 I can investigate a working system to determine the main components](#) [58]

[2.1 I can make a working skeletal plan of a system](#) [59]

[3.1 I can prepare a system in terms of specifications](#) [60]

[4.1 I can develop a basic test regime](#) [61]

[5.1 I can analyse the results in terms of the objectives](#) [62]

[1.2 I can explain the main system components](#)

[2.2 I can set clear objectives and outcomes to build a](#)

[3.2 I can explain the specification in terms of](#)

[4.2 I can explain the purpose of the main test](#)

[5.2 I can evaluate some of the features of the system](#)

[63]	<a href="#">system against</a> [64]	<a href="#">performance</a> <a href="#">needs</a> [65]	<a href="#">procedures</a> [66]	<a href="#">and their</a> <a href="#">purpose</a> [67]
<a href="#">1.3 I can</a> <a href="#">describe how</a> <a href="#">the</a> <a href="#">components fit</a> <a href="#">together</a> [68]	<a href="#">2.3 I can list</a> <a href="#">the main safety</a> <a href="#">features that</a> <a href="#">will need to be</a> <a href="#">addressed for</a> <a href="#">success</a> [69]	<a href="#">3.3 I can</a> <a href="#">describe the</a> <a href="#">way a web site</a> <a href="#">functions</a> [70]	<a href="#">4.3 I can</a> <a href="#">explain the</a> <a href="#">expected</a> <a href="#">results from</a> <a href="#">tests</a> [71]	<a href="#">5.3 I can</a> <a href="#">justify some</a> <a href="#">design</a> <a href="#">decisions in</a> <a href="#">terms of</a> <a href="#">objectives</a> [72]
<a href="#">1.4 I can</a> <a href="#">make detailed</a> <a href="#">notes of my</a> <a href="#">findings</a> [73]	<a href="#">2.4 I can</a> <a href="#">explain the</a> <a href="#">main hardware</a> <a href="#">requirements</a> <a href="#">needed</a> [74]	<a href="#">3.4 I can</a> <a href="#">describe the</a> <a href="#">main pieces of</a> <a href="#">software</a> <a href="#">required</a> [75]	<a href="#">4.4 I can</a> <a href="#">describe the</a> <a href="#">test results and</a> <a href="#">what they</a> <a href="#">mean</a> [76]	<a href="#">5.4 I can</a> <a href="#">analyse</a> <a href="#">possible</a> <a href="#">improvements</a> <a href="#">to the system</a> <a href="#">based on usage</a> <a href="#">and end user</a> <a href="#">feedback</a> [77]
<a href="#">1.5 I can</a> <a href="#">present my</a> <a href="#">notes to an</a> <a href="#">audience for</a> <a href="#">feedback</a> [78]	<a href="#">2.5 I can</a> <a href="#">explain the</a> <a href="#">main software</a> <a href="#">aspects of the</a> <a href="#">system</a> [79]	<a href="#">3.5 I can</a> <a href="#">describe the</a> <a href="#">configuration</a> <a href="#">settings for a</a> <a href="#">working system</a> [80]	<a href="#">4.5 I can</a> <a href="#">adjust the</a> <a href="#">system in light</a> <a href="#">of test results</a> [81]	<a href="#">5.5 I can</a> <a href="#">analyse the</a> <a href="#">effectiveness of</a> <a href="#">the system by</a> <a href="#">viewing the</a> <a href="#">different log</a> <a href="#">files</a> [82]
<a href="#">1.6 I can list</a> <a href="#">some key</a> <a href="#">objectives of</a> <a href="#">the system I</a> <a href="#">will design</a> [83]	<a href="#">2.6 I can</a> <a href="#">make a final</a> <a href="#">plan for a</a> <a href="#">system</a> [84]	<a href="#">3.6 I can</a> <a href="#">recommend</a> <a href="#">final</a> <a href="#">adjustments</a> <a href="#">before going</a> <a href="#">live</a> [85]	<a href="#">4.6 I can</a> <a href="#">document the</a> <a href="#">test results for</a> <a href="#">third party</a> <a href="#">support people</a> [86]	<a href="#">5.6 I can</a> <a href="#">recommend</a> <a href="#">improvements</a> <a href="#">to the system</a> <a href="#">for future-</a> <a href="#">proofing</a> [87]

**Source URL:** <https://theingots.org/community/csdf>

## Links

- [1] [https://theingots.org/community/sites/default/files/uploads/user4107/TLM%20L2%20Cyber%20Handbook%201.3\\_1.pdf](https://theingots.org/community/sites/default/files/uploads/user4107/TLM%20L2%20Cyber%20Handbook%201.3_1.pdf)
- [2] <https://register.ofqual.gov.uk/Detail/Index/39715?category=qualifications&query=603%2F1452%2F7>
- [3] [https://theingots.org/community/RQF\\_Levels](https://theingots.org/community/RQF_Levels)
- [4] <https://www.netacad.com>
- [5] <https://www.netacad.com/courses/intro-cybersecurity/>
- [6] <https://www.netacad.com/courses/cybersecurity-ess/>
- [7] <https://theingots.org/community/csdf12u1x#1.1>
- [8] <https://theingots.org/community/csdf12u1x#2.1>
- [9] <https://theingots.org/community/csdf12u1x#3.1>
- [10] <https://theingots.org/community/csdf12u1x#1.2>
- [11] <https://theingots.org/community/csdf12u1x#2.2>
- [12] <https://theingots.org/community/csdf12u1x#3.2>

[13] <https://theingots.org/community/csdf12u1x#1.3>  
[14] <https://theingots.org/community/csdf12u1x#2.3>  
[15] <https://theingots.org/community/csdf12u1x#3.3>  
[16] <https://theingots.org/community/csdf12u1x#1.4>  
[17] <https://theingots.org/community/csdf12u1x#2.4>  
[18] <https://theingots.org/community/csdf12u1x#3.4>  
[19] <https://theingots.org/community/csdf12u1x#1.5>  
[20] <https://theingots.org/community/csdf12u1x#2.5>  
[21] <https://theingots.org/community/csdf12u1x#3.5>  
[22] <https://theingots.org/community/csdf12u1i>  
[23] <https://theingots.org/community/csdf12u2x#1.1>  
[24] <https://theingots.org/community/csdf12u2x#2.1>  
[25] <https://theingots.org/community/csdf12u2x#3.1>  
[26] <https://theingots.org/community/csdf12u2x#1.2>  
[27] <https://theingots.org/community/csdf12u2x#2.2>  
[28] <https://theingots.org/community/csdf12u2x#3.2>  
[29] <https://theingots.org/community/csdf12u2x#1.3>  
[30] <https://theingots.org/community/csdf12u2x#2.3>  
[31] <https://theingots.org/community/csdf12u2x#3.3>  
[32] <https://theingots.org/community/csdf12u2x#1.4>  
[33] <https://theingots.org/community/csdf12u2x#2.4>  
[34] <https://theingots.org/community/csdf12u2x#3.4>  
[35] <https://theingots.org/community/csdf12u2x#1.5>  
[36] <https://theingots.org/community/csdf12u2x#2.5>  
[37] <https://theingots.org/community/csdf12u2x#3.5>  
[38] <https://theingots.org/community/csdf12u2i>  
[39] <https://theingots.org/community/csdf12u3x#1.1>  
[40] <https://theingots.org/community/csdf12u3x#2.1>  
[41] <https://theingots.org/community/csdf12u3x#3.1>  
[42] <https://theingots.org/community/csdf12u3x#1.2>  
[43] <https://theingots.org/community/csdf12u3x#2.2>  
[44] <https://theingots.org/community/csdf12u3x#3.2>  
[45] <https://theingots.org/community/csdf12u3x#1.3>  
[46] <https://theingots.org/community/csdf12u3x#2.3>  
[47] <https://theingots.org/community/csdf12u3x#3.3>  
[48] <https://theingots.org/community/csdf12u3x#1.4>  
[49] <https://theingots.org/community/csdf12u3x#2.4>  
[50] <https://theingots.org/community/csdf12u3x#3.4>  
[51] <https://theingots.org/community/csdf12u3x#1.5>  
[52] <https://theingots.org/community/csdf12u3x#2.5>  
[53] <https://theingots.org/community/csdf12u3x#3.5>  
[54] <https://theingots.org/community/csdf12u3x#1.6>  
[55] <https://theingots.org/community/csdf12u3x#2.6>  
[56] <https://theingots.org/community/csdf12u3x#3.6>  
[57] <https://theingots.org/community/csdf12u3i>  
[58] <https://theingots.org/community/csdf12u4x#1.1>  
[59] <https://theingots.org/community/csdf12u4x#2.1>  
[60] <https://theingots.org/community/csdf12u4x#3.1>  
[61] <https://theingots.org/community/csdf12u4x#4.1>  
[62] <https://theingots.org/community/csdf12u4x#5.1>  
[63] <https://theingots.org/community/csdf12u4x#1.2>  
[64] <https://theingots.org/community/csdf12u4x#2.2>  
[65] <https://theingots.org/community/csdf12u4x#3.2>  
[66] <https://theingots.org/community/csdf12u4x#4.2>  
[67] <https://theingots.org/community/csdf12u4x#5.2>  
[68] <https://theingots.org/community/csdf12u4x#1.3>  
[69] <https://theingots.org/community/csdf12u4x#2.3>  
[70] <https://theingots.org/community/csdf12u4x#3.3>  
[71] <https://theingots.org/community/csdf12u4x#4.3>

[72] <https://theingots.org/community/csdf12u4x#5.3>  
[73] <https://theingots.org/community/csdf12u4x#1.4>  
[74] <https://theingots.org/community/csdf12u4x#2.4>  
[75] <https://theingots.org/community/csdf12u4x#3.4>  
[76] <https://theingots.org/community/csdf12u4x#4.4>  
[77] <https://theingots.org/community/csdf12u4x#5.4>  
[78] <https://theingots.org/community/csdf12u4x#1.5>  
[79] <https://theingots.org/community/csdf12u4x#2.5>  
[80] <https://theingots.org/community/csdf12u4x#3.5>  
[81] <https://theingots.org/community/csdf12u4x#4.5>  
[82] <https://theingots.org/community/csdf12u4x#5.5>  
[83] <https://theingots.org/community/csdf12u4x#1.6>  
[84] <https://theingots.org/community/csdf12u4x#2.6>  
[85] <https://theingots.org/community/csdf12u4x#3.6>  
[86] <https://theingots.org/community/csdf12u4x#4.6>  
[87] <https://theingots.org/community/csdf12u4x#5.6>  
[88] <https://theingots.org/community/csdf12u4i>