

## Module specification

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Module code	COM466
Module title	Fundamentals of Information Security
Level	4
Credit value	20
Faculty	FAST
Module Leader	Dr Nigel Houlden / Leanne Davies
HECoS Code	100376
Cost Code	GACP

## Programmes in which module to be offered

Programme title	Is the module core or option for this programme
BSc (Hons) Applied Cyber Security	Core

## Pre-requisites

None

## Breakdown of module hours

Learning and teaching hours	48 hrs
Placement tutor support	0 hrs
Supervised learning e.g. practical classes, workshops	0 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
<b>Total active learning and teaching hours</b>	<b>48 hrs</b>
Placement / work based learning	0 hrs
Guided independent study	152 hrs
<b>Module duration (total hours)</b>	<b>200 hrs</b>

<b>For office use only</b>	
Initial approval date	10 Nov 2021
With effect from date	Jan 2022

<b>For office use only</b>	
Date and details of revision	
Version number	1

## Module aims

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This module provides an overview of security challenges and strategies of countermeasure in the information systems environment. Topics include definition of terms, concepts, elements, and goals incorporating industry standards and practices with a focus on confidentiality, availability, and integrity aspects of information systems.

## Module Learning Outcomes - at the end of this module, students will be able to:

1	Explain information systems security and its effect on people and businesses
2	Describe how malicious attacks, threats, and vulnerabilities impact an IT infrastructure
3	Explain the role of IT operations, administration, and security policies.
4	Explain the importance of security audits, testing, and monitoring in an IT infrastructure
5	Explain the role of access controls in an IT infrastructure

## Assessment

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Indicative Assessment Tasks:

Assessment 1 is a portfolio, the portfolio will be reflect how the topics presented on the course are implemented / or could be in their working environment.

Assessment 2 is an In-class test, testing the students' knowledge and understanding of key principles.

Where practical assessment 1 will be related / carried out in the workplace.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	2,3,4	Portfolio	70%
2	1	In-class test	30%

## Derogations

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None

## **Learning and Teaching Strategies**

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The module is taught using a structured programme of lectures, online learning, mini-seminars, tutorials, practical exercises and student-centred learning specifically:

- Self-directed learning using on-line material and lectures to supplement on-line material
- On-line multiple choice tests to give formative feedback
- Web based research

## **Indicative Syllabus Outline**

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- Information systems security (ISS) fundamentals
- ISS within the seven domains of a typical information technology infrastructure
- Risks, threats, and vulnerabilities found in a typical IT infrastructure
- Security countermeasures for combating risks, threats, and vulnerabilities commonly found in an IT infrastructure

## **Indicative Bibliography:**

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Please note the essential reads and other indicative reading are subject to annual review and update.

### **Essential Reads**

Wills, M. (ISC)2 SSCP Systems Security Certified Practitioner Official Study Guide, Sybex; 2nd edition (7 Jun. 2019)

### **Other indicative reading**

Gibson, D. CompTIA Security+: Get Certified Get Ahead: SY0-401 Study Guide, 2014, ISBN 978-193913602

Smith, R E. Elementary Information Security, 2nd Edition, 2015, ISBN 978-1284055931

Goodman, M. Future Crimes: Inside the Digital Underground and the Battle for Our Connected World Reprint Edition, 2016, ISBN 978-0804171458

Andress, J. The Basics of Information Security, Second Edition: Understanding the Fundamentals of InfoSec in Theory and Practice, 2nd Edition, 2014, ISBN 978-0128007440

## **Employability skills – the Glyndŵr Graduate**

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Each module and programme is designed to cover core Glyndŵr Graduate Attributes with the aim that each Graduate will leave Glyndŵr having achieved key employability skills as part of their study. The following attributes will be covered within this module either through the content or as part of the assessment. The programme is designed to cover all attributes and each module may cover different areas.

### **Core Attributes**

Engaged  
Enterprising  
Ethical

### **Key Attitudes**

Commitment

Curiosity  
Resilience  
Confidence  
Adaptability

**Practical Skillsets**

Digital Fluency  
Organisation  
Leadership and Team working  
Critical Thinking  
Emotional Intelligence  
Communication