

# **COM7005**

## Information Security Strategy Development

### **Assignment: Part 2**

**Date for Submission:** Please refer to the timetable on ilearn

(The submission portal on ilearn will close at 14.00 UK time on the date of submission)

## Assignment Brief

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As part of the formal assessment for the programme you are required to submit an **Information Security Strategy Development** assignment. Please refer to your Student Handbook for full details of the programme assessment scheme and general information on preparing and submitting assignments.

### Learning Outcomes:

After completing the module, you should be able to:

- 1) Evaluate the basic external and internal threats to electronic assets and countermeasures to thwart such threats by utilising relevant standards and best practice guidelines.
- 2) Analyse the legalities of computer forensics phases and the impact of the legal requirements on the overall information security policy.
- 3) Critically assess the boundaries between the different service models (SaaS, PaaS, IaaS) and operational translations (i.e. cloud computing) and to identify the associated risks.
- 4) Critically investigate a company information security strategy to provide consultation and coaching through reporting and communication.
- 5) Assess, compare and judge computer media for evidentiary purposes and/or root cause analysis.
- 6) Apply relevant standards, best practices and legal requirements for information security to develop information security policies.
- 7) Lifelong Learning: Manage employability, utilising the skills of personal development and planning in different contexts to contribute to society and the workplace.

Your assignment should include: a title page containing your student number, the module name, the word count; the appendices if relevant; and a reference list in Arden University (AU) Harvard format. You should address all the elements of the assignment task listed below. Please note that tutors will use the assessment criteria set out below in assessing your work.

**Maximum word count:** 2,500 words

*Please note that exceeding the word count by over 10% will result in a reduction in grade by the same percentage that the word count is exceeded.*

**You must not include your name** in your submission because Arden University operates anonymous marking, which means that markers should not be aware of the identity of the student. However, please do not forget to include your STU number.

## Assignment Task: Part 2

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**This assignment is worth 50% of the total marks for the module.**

- 1) A Denial of Service attack (DoS) represents one of the most widespread types of cyber-threats to businesses of all sizes. DoS prevents users of an online IT system from accessing vital services for an extended period of time, creating both financial and reputational losses for the affected company. Many DoS attacks have blocked websites of private, public and government organisations from serving their clients, customers and partners for hours or even days. Addressing corporate vulnerability to DoS attacks is now becoming more and more critical due to the growing adoption of cloud-based architectures and information sharing platforms. As such, a consideration of DoS related risks should be placed at the core of any information security strategy.

Critically analyse the most typical scenarios leading to the increased exposure to DoS attacks. Suggest specific counter-measures which could be incorporated to the corporate information security strategy. These should include:

- a) infrastructures to minimise the likelihood of the occurrence of such an event (preventive approach)
- b) mechanisms to mitigate the issues created by the occurrence of such an event (the reactive approach)
- c) policies which recognise this threat as an overall business risk rather than merely technical risk.

**(70 marks)**  
**(LOs 1, 4, 5, 6 & 7)**

- 2) Using WinHex or a similar tool, try to load your operating system swap file for digital forensics investigation. Report your findings about:

- a) Recovered deleted files
- b) Extracting used passwords

**(30 marks)**  
**(LO2)**

## Formative Feedback

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You have the opportunity to submit your answer draft to receive formative feedback. The feedback is designed to help you develop areas of your work and it helps you develop your skills as an independent learner.

Your work must be submitted to your tutor at least *two weeks prior to the assessment submission date*. This is to allow time for you to reflect on the feedback and draft your final submission.

Formative feedback will not be given to work submitted after the above date.

## Guidelines:

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You **MUST** underpin your analysis and evaluation of the key issues with appropriate and wide ranging academic research and ensure this is referenced using the AU Harvard system.

The My Study Skills Area on iLearn contains useful resources relating to referencing.

**You must use the AU Harvard Referencing method in your assignment.**

## Additional notes:

*Students are required to indicate the exact word count on the title page of the assessment.*

*The word count excludes the **title page, tables, figures, diagrams, footnotes, reference list and appendices**. Where assessment questions have been reprinted from the assessment brief these will also be excluded from the word count. **ALL other printed words ARE included in the word count** See 'Word Count Policy' on the homepage of this module for more information.*

## Submission Guidance

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**Assignments submitted late will not be accepted and will be marked as a 0% fail.**

Your assessment should be submitted as a single *Word (MS Word) or PDF* file. For more information please see the "Guide to Submitting an Assignment" document available on the module page on iLearn.

You must ensure that the submitted assignment is all your own work and that all sources used are correctly attributed. Penalties apply to assignments which show evidence of academic unfair practice. (See the Student Handbook which is on the homepage of your module and also in the Induction Area).

### Assessment Criteria (Learning objectives covered - all)

<p><b>Level 7</b> is characterised by an expectation of students' expertise in their specialism. Students are semi-autonomous, demonstrating independence in the negotiation of assessment tasks (including the major project) and the ability to evaluate, challenge, modify and develop theory and practice. Students are expected to demonstrate an ability to isolate and focus on the significant features of problems and to offer synthetic and coherent solutions, with some students producing original or innovative work in their specialism that is potentially worthy of publication by Arden University. A clear appreciation of ethical considerations (as appropriate) is also a prerequisite.</p>		
Grade	Mark Bands	Generic Assessment Criteria
<b>Distinction</b>	70%+	Excellent analysis of key issues and concepts/. Excellent development of conceptual structures and argument, making consistent use of scholarly conventions. <i>Excellent research skills, independence of thought, an extremely high level of intellectual rigour and consistency, exceptional expressive / professional skills, and substantial creativity and originality. Excellent academic/intellectual skills. Work pushes the boundaries of the discipline and demonstrates an awareness of relevant ethical considerations. Work may be considered for publication by Arden university</i>
<b>Merit</b>	60-69%	Very good level of competence demonstrated. High level of theory application. Very good analysis of key issues and concepts. Development of conceptual structures and argument making consistent use of scholarly conventions. Some evidence of original thought and a general awareness of relevant ethical considerations
<b>Pass</b>	50-59%	A satisfactory to good performance. Basic knowledge of key issues and concepts. Generally descriptive, with restricted analysis of existing scholarly material and little argument development. Use of scholarly conventions inconsistent. The work lacks original thought. Some awareness of relevant ethical considerations. Satisfactory professional skills (where appropriate).
<b>Marginal Fail</b>	40-49%	<i>Limited research skills impede use of learning resources and problem solving. Significant problems with structure/accuracy in expression. Very weak academic / intellectual / professional skills. Limited use of scholarly conventions. Errors in expression and the work may lack structure overall.</i>
<b>Fail</b>	39% and below	A poor performance in which there are substantial gaps in knowledge and understanding, underpinning theory and ethical considerations. <i>Little evidence of research skills, use of learning resources and problem solving. Major problems with structure/ accuracy in expression. Professional skills not present. Very weak academic / intellectual / professional skills. No evidence of use of scholarly conventions</i>