COM00149M

Department of Computer Science

**Cyber Security Threats**

ASSESSMENT BRIEF

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| Assessment Author | Angus Marshall |
| Assessment | Summative - Open |
| Release | Week 3 |
| Submission | Monday following week 8 at 13:00 (UK time) \* |
| Feedback | Within 30 working days of submission |
| Weighting | 100% |

\* If this date falls on a UK public holiday or a University of York closure day, the submission date will change. Please check the submission point in the ‘Assignments’ area of the module in Canvas for the exact submission deadline.

# Module Learning Outcomes

* 1. Identify and analyse major threat types in a variety of systems.
	2. Propose an appropriate high-level security management approach for a security-sensitive system in a defined regulatory environment.
	3. Critically evaluate and apply a standard risk assessment approach/tools to identify threats to a system.
	4. Critically assess the relative merits of specific solution approaches for particular contexts.
	5. Critically discuss leading edge research in cyber security and the challenges faced.
	6. Critically evaluate the legal and ethical issues in cyber security.

This assessment will contribute to ALL learning outcomes for this module.

# Assessment Background/Scenario

You have been appointed as the Cyber Security manager for a spin-out company that will offer services based on <https://www.cbord-h2020.eu/>. These services may be offered directly to businesses, or the company may act as an agent for businesses and deal directly with the public if the service is appropriate.

In this role, you have been asked to produce a cyber security risk management plan for the service and to comment on any additional legal/regulatory issues and technical areas relating to cyber security, which may need further consideration or research activity to allow the service to succeed and develop.

In assessing the potential service offering, you pay particular attention to specifications, requirements and demo & use-case documentation of the project or product described on the reference website (site sections listing News, Publications or Dissemination may be particularly useful if there is no other clear indication of specifications etc.). You should also consult additional external sources such as the CYBOK (<https://www.cybok.org/>) and national or international standards and legislation to inform and support your work.

# Assessment Task(s)

You are to review the website identified above, giving particular consideration to cyber security and related issues, to prepare a risk management plan and briefing documents on legal/regulatory and technical areas that the new company’s management board needs to consider and authorise.

To facilitate this, you are to produce a report containing **3** main sections:

## Section A (1800 words) 60%

A structured risk assessment and management plan conforming to an appropriate recognised industry standard or methodology. You must state which standard or methodology you have applied and why, by giving three to five examples of how you have applied it at each stage. You must also clearly state any assumptions you have made about the proposed service or the outcomes from the reference project or product website.

## Section B (600 words) 20%

A description of any legal or regulatory issues related to security issues that you believe may affect the service, along with recommendations for how to resolve those issues.

## Section C (600 words) 20%

A description of any technical areas, including those from recent or current research, relating to cyber security which you recommend that the company management should consider for further work or inclusion in the service, along with an explanation of why you believe these areas merit such consideration.

Don't waste space just describing the subject system — assume we are already broadly familiar with the documents we have cited on it. (Do, however, state the fine details that are important to your arguments).

You may need to make assumptions about the business scenario or design in order to propose solutions; this is acceptable provided any such assumptions are realistic and clearly stated.

**Note: the title page, tables of contents/figures/diagrams/etc., bibliography and appendices are not included in your word count.**

# Deliverables

* + You should submit a single word-processed file or .pdf, which can be displayed by Canvas.
		- Additional separate files or images will not be considered.
	+ The word count for this assessment is **3,000 words**.
		- Word counts that exceed the overall limits will not be graded. A line will be drawn at the limit as indicated above.
		- You must state the number of words used on the front of your report, and this will be checked.

## Submission guidelines

* The main text should be written using a consistent font, font size and line spacing. You should also consider the following:
	+ A sans serif font is more accessible to those with reading difficulties. Here are some examples of sans serif fonts: Arial, Calibri, Helvetica and Microsoft Sans Serif.
	+ Central justified text is not appropriate and inhibits effective reading of paragraphs.
	+ Coloured text and highlighting should not be used for accessibility reasons and ease of reading.
	+ Bullet points should only be used where the content is a definitive list and should be used sparingly if this is an essay, not a report.
	+ Tables should only be used for tabulated data and not as a means of structuring passages of text.
* Paragraphs must not be excessively long. “Wall of text” answers which do not contain breaks at logical points are not acceptable.
* All images and diagrams must be clear and viewable on the page without the need for scaling; consider how these would look if the document were printed. They should be clearly referenced from the text (above or below) and discussed. Those that are “in isolation” will not be considered. Moreover, the tables and figures should be captioned appropriately.
* All tables, figures and equations should be labelled or numbered. Conventions for labelling or numbering tables and figures should be applied consistently.
* You are expected to research your answers and cite appropriate academic and/or other sources in an appropriate format for the type of essay you have been asked to write. **It is not sufficient to use only the module notes/content.**
* All source material that is used, whether by direct quotation or not, must be acknowledged/referenced, following the [IEEE referencing style](https://subjectguides.york.ac.uk/referencing-style-guides/ieee). See the University of York Academic Integrity site.
* You are advised to use direct quotes minimally. They should only be used to support your points and do not attract marks directly.
* Appendices. These may be used to include supporting data that may be too detailed or complex to include as a table. They are not a device to incorporate material that would otherwise cause you to exceed the word limit. These are not included in the word count.
* The bibliography and/or reference list must come **after** the appendices. These are not included in the word count.
* **Do not include your examination number, student ID or name anywhere in your essay.**

# Marking Criteria

There should be three individual sections in the report. Provide each required section, and clearly indicate the section name/number, taking special care of the word count limit of each section. Parts of your submission that go beyond the limit will not be marked. Any references or other sources used must be listed at the end of the document and do not count towards the word count.

**These are expected in your submission and constitute what you are marked on.**

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| **Learning****Outcome** | **Section****/Task** | **Criteria** | **Available****Marks** |
|  | **Section A** |
| 1, 2, 3, 4 | Appropriate & competent application of methodology or standard. | 10 |
| Identification of business assets & associated risks. | 20 |
| Risk management plan. | 20 |
| Justification of risk treatments based on appropriate criteria and consideration of alternatives. | 10 |
|  | **Section B** |
| 6 | Identification of relevant legal and/or regulatory issues, with justifications. | 10 |
| Appropriateness/feasibility of proposed methods to tackle issues identified. | 10 |
|  | **Section C** |  |
| 5 | Identification of relevant technical areas or issues, with justifications. | 10 |
|  | Appropriateness/feasibility of proposed technical work. | 10 |
|  | **TOTAL:**  | **100** |

# Grading

The pass mark for postgraduate modules is 50. For more information about grades and assessment criteria, please review the ‘Assessment and award’ section of the *York Online Programmes Handbook*, which is available to view or download from your **Orientation Module**.

# Assessment submission

You will submit your assessment in the ‘Assignments’ area of the module in Canvas.

Please check your Canvas module for the specific submission date for this assignment.

For general assessment guidelines consult your Canvas Module, and the Orientation Modules, and for Academic Regulations refer to the University of York's [Guide to](https://www.york.ac.uk/students/studying/assessment-and-examination/guide-to-assessment/) [Assessment, Standards, Marking and Feedback](https://www.york.ac.uk/students/studying/assessment-and-examination/guide-to-assessment/).

Your attention is drawn to the section about Academic Misconduct in your Departmental Handbook.

Any queries regarding the details of your assessment should be directed to your module tutor and/or module coordinator

Any other queries regarding assessment procedures should be directed to: studentsuccess@online.york.ac.uk.

# Submission deadline

The deadline for submitting the summative assessment is the Monday following week 8, at 13:00 (UK time).

If this date falls on a UK public holiday or a University of York closure day, the submission date will change. Please check the Submission point in the ‘Assignments’ area of the module in Canvas for the exact submission deadline.

# Submission of student work to Turnitin®

Turnitin® is a third-party text-matching software programme that compares written assessments with an online database of articles, books, websites, and pieces submitted by other users. To ensure the highest levels of academic integrity and in line with University Regulation 5.7b, any work submitted for this summative assessment will be submitted to Turnitin®. In accepting the University Regulations on admission, students have agreed to the University’s use of this software package.

You can also use Turnitin® as part of your writing process, to help you check your use of source information and improve your understanding of academic integrity. To access the Turnitin® submission points, or for more information on this software tool, see the **Turnitin Training** module in Canvas.

# Exceptional Circumstances Affecting Assessment

If unforeseeable and exceptional circumstances take place that prevent you from submitting a summative assessment by the deadline, or that negatively affect your performance in an assessment, then you can submit an Exceptional Circumstances (EC) claim. If approved, you may be granted a deadline extension, a late penalty waiver or the opportunity to sit a new version of the assessment 'as if for the first time' (a SAIFFT).

If unforeseeable and exceptional circumstances do occur, you must seek support **as soon as possible**, ideally before the affected assessment deadline. You must submit your Exceptional Circumstances claim form within **7 days of the assessment deadline**. If you do not submit by the deadline indicated without good reason, your claim will not be considered.

Full details of the Exceptional Circumstances Policy and the online application form are available on the [Exceptional Circumstances affecting Assessment webpage](https://www.york.ac.uk/students/studying/progress/exceptional-circumstances/).

**Please take proper precautions to safeguard your work and remember to make backup copies of your data. The University provides all its students with storage space on the University server and you should save and back up any work in progress on this server on a regular basis. Computer failure and theft of your equipment or storage media are not considered mitigating circumstances and extensions cannot be granted for work lost for these reasons.**