ASSESSMENT 1

**ICT704   
Ethical Hacking and Penetration Testing**

**Semester 1, 2025**

****

# Assessment overview

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Assessments | Overview | Weight | Due date | Unit Learning Outcomes (ULO) |
| Assessment 1: Reconnaissance and Vulnerability Report | Report on Reconnaissance and Vulnerability on an Enterprise Application. | 30% | Session 5 | ULO1 and ULO2 |
| Assessment 2: Video Penetration Laboratories | Video on performing six penetration laboratories | 30% | Session 9 | ULO1, ULO2, ULO3 and ULO4 |
| Assessment 3\*: Capture the Flag Project Report and Presentation (Group)  Part A: Report  Part B: Presentation | Capture the Flag Project Report and Presentation | 40% | Part A: Session 12  Part B: Session 13  (Study Week) | ULO1, ULO2, ULO3 and ULO4 |

Note: \* denotes ‘Hurdle Assessment Item’ that students must achieve at least 40% in this item to pass the unit.

**Submission Instructions**

All submissions are to be submitted through Turnitin. Drop-boxes linked to Turnitin will be set up in Moodle. Assessments not submitted through these drop- boxes will not be considered. Submissions must be made by the end of the session indicated on this Unit Assessment Guide.

The Turnitin similarity score will be used to determine any suspected plagiarism in your submitted assessment. Turnitin will check conference websites, journal articles, online resources, your peer’s submissions, and possible work by generative artificial intelligence (AI) for similarity. You can see your Turnitin similarity score when you submit your assessments to the appropriate drop-box. If your similarity score is of concern, you can change your assessment and resubmit. However, re-submission is only allowed before the submission due date and time. You cannot make re-submissions after the due date and time have elapsed.

**Please Note:** All work is due by the date and time listed in this Unit Assessment Guide. Late submissions will be penalised at 20% of the assessment final grade per day, including weekends.

**Referencing guides**

You must reference all the sources of information you have used in your assessments. Please use the IEEE referencing style when referencing in your assessments in this unit. Refer to the library’s referencing guides for more information.

**Academic misconduct**

VIT enforces that the integrity of its students’ academic studies meets an acceptable level of excellence. VIT will adhere to its [**VIT Policies, Procedures and Forms**](https://vit.edu.au/policies-procedures-and-forms/)which explain the importance of staﬀ and student honesty in relation to academic work and outlines the kinds of behaviours that are considered "academic misconduct" including but not limited to plagiarism.

**Late submissions**

In cases where there are no accepted mitigating circumstances as determined through [**VIT Policies, Procedures and Forms**](https://vit.edu.au/policies-procedures-and-forms/), late submission of assessments will lead automatically to the imposition of a penalty. Penalties will be applied as soon as the deadline is reached.

**Short extensions and special consideration**

Special Consideration is a request for:

* + Extensions of the due date for an assessment, other than an examination (e.g. assignment extension).
  + Special Consideration (Special Consideration in relation to a completed assessment, including an end-of-unit Examination).

Students wishing to request Special Consideration in relation to an assessment task must engage in written emails to the unit lecturer to Request for Special Consideration as early as possible and prior to the start time of the assessment due date, along with any accompanying documents, such as medical certificates pertaining to your current situation.

For more information, visit [**VIT Policies, Procedures and Forms**](https://vit.edu.au/policies-procedures-and-forms/).

**Inclusive and equitable assessment**

Reasonable adjustment in assessment methods will be made to accommodate students with a documented disability or impairment. Contact the unit teaching team for more information.

**Contract Cheating**

Contract Cheating is a serious form of academic misconduct and is not tolerated by VIT under any circumstances.

Contract cheating usually involves the purchase of an assignment or piece of research from another party. This may be facilitated by a fellow student, friend, or purchased on a website. Other forms of contract cheating include paying another person to sit an exam in the student's place.

Contract cheating warning:

* + By paying someone else to complete your academic work, you don’t learn as much as you could have if you did the work yourself.
  + You are not prepared for the demands of your future employment.
  + You could be found guilty of academic misconduct.
  + Many for profit contract cheating companies recycle assignments despite guarantees of “original, plagiarism-free work” so similarity is easily detected by Turnitin.
  + Penalties for academic misconduct include suspension and exclusion.
  + Students in some disciplines are required to disclose any findings of guilt for academic misconduct before being accepted into certain professions.
  + You might disclose your personal and financial information in an unsafe way, leaving yourself open to many risks including possible identity theft.
  + You also leave yourself open to blackmail - if you pay someone to do an assignment for you, they know you have engaged in fraudulent behaviour and can always blackmail you.

**Grades**

We determine your grades to the following Grading Scheme:

|  |  |
| --- | --- |
| **Grade** | **Percentage** |
| A | 80% – 100% |
| B | 70% – 79% |
| C | 60% – 69% |
| D | 50% – 59% |
| F | 0% – 49% |

**Assessment details**

**Assessment 1: Reconnaissance and Vulnerability Report**

# Overview

|  |  |  |  |
| --- | --- | --- | --- |
| **Weight** | **Length** | **Due date** | **ULO** |
| 30% | 1000 words | Week 5 | ULO1 and ULO2 |

**Introduction**

In this individual assignment, students perform network discovery techniques using NMAP with Kali, BackBox or Parrot to target at least one enterprise applications per student (e.g. Zabbix, Greylog, or any other open source/evaluation software) to determine which ports are open and what types of traffic are expected on those ports. Describe and implement how to harden the system. Students should use a two or three-factor method (e.g. Wireshark and Netcat to determine if a port is open) to interpret their results and determine attack vectors for the enterprise software. Students should record the hash of files generated by the software and observe events triggered by the software and think of possible attack vectors that might exist. You can use any tool(s), such as NMAP, Port Scanners, Wireshark, Netminer, windows event viewer, logs, etc. It is beneficial to learn new tools such as Sandboxes.

**Report (30%)**

Cover Page: Name, Student ID, Subject Code.

Executive Summary (2%)

Introductions (3%)

Methods and Evidence (10%)

Interpretation and Recommendations (10%)

Conclusions (3%)

Appendix (2%)

Always submit your own work.

# Marking Guide: 30 Marks

|  |  |  |
| --- | --- | --- |
| **Task** | **Description** | **Marks** |
| Executive Summary | Summarize the entire document with key findings. | 2 |
| Introductions | Introduce the report – how come this report was created? | 3 |
| Methods and Evidence | Describe with appropriate screenshots the methods used to collect any evidence showing ports are open, password visible in RAM, system calls, etc. | 10 |
| Interpretation and Recommendations | Interpret your evidence – is this program a security risk? What do you recommend (to whom) and why? Based on the evidence you collected. | 10 |
| Conclusions | Conclude your report with key methods, evidence and recommendations. | 3 |
| Appendix | Include screenshots of activities such as logs, trace files, sniffers, windows registry, etc. | 2 |

**Marking criteria/Rubric**

You will be assessed on the following marking criteria/Rubric:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assessment criteria** | **Exceptional >=80%** | **Admirable 70% – 79%** | **Creditable 60% - 69%** | **Acceptable 50% - 59%** | **Unsatisfactory <=49** |
| **C1. Executive Summary**  **2 points** | Logic is clear and a summary including key points of the whole report (2) | The summary is mostly consistent with some key points (1.5) | Adequately summary with limited key points (1.25) | A brief relevant summary (1) | The summary is general and does not detail the findings. (0.5)  Not Submitted or Academic Misconduct. (0) |
| **C2. Introduction**  **3 points** | Logic is clear in the Introduction with a comprehensive explanation of why this report exists. (3) | The introduction is mostly comprehensive including an explanation of why this report exists. (2.5) | A consistent introduction and convincing justification of the report existent (2) | Satisfactory introduction and some justification for the report (1.5) | The summary is general. (1)  Not Submitted or Academic Misconduct. (0) |
| **C3. Methods and Evidence**  **10 points** | Comprehensively describe all the methods and preserve the evidence. (10) | Explain clearly most of the methods and preserve the evidence. (7.5) | Adequately explain some of the methods and preserve some evidence. (6) | Adequately explain some of the methods and preserve some evidence. (5) | Some evidence preserved some methods shown. However, some methods may not be relevant (2)  Not Submitted or Academic Misconduct. (0) |
| **C4. Interpretation and Recommendations**  **10 points** | Accurate interpretation of all the evidence. Deterministic recommendations based on all the evidence (10) | Accurate interpretation of all the evidence. Summarize recommendations based on all the evidence (7.5) | Basic interpretation of some of the evidence. Summarize recommendations based on all the evidence (6) | Limited interpretation of few of the evidence. Summarize recommendations based on limited amount of evidence (5) | Missing interpretation of few of the evidence. Does not show how evidence is linked to the recommendations (2)  Not Submitted or Academic Misconduct. (0) |
| **C5. Conclusion**  **3 points** | Accurately and well-deduced conclusions from the evidence collected (3) | Mostly accurate and appropriately deduced conclusions from the evidence. (2.5) | Correct conclusion with some reference to the evidence (2) | Limited conclusion with little reference to the evidence (1.5) | Not Submitted or Academic Misconduct. (0) |
| **C6. Appendix**  **2 points** | Demonstrated efficient use of Appendix and the appendix supports the evidence collected. (2) | Demonstrated a comprehensive use of Appendices and the appendices support the evidence collected. (1.75) | Demonstrated adequate use of the Appendix and the appendix supports the evidence collected. (1.25) | Limited use of appendix. Evidence may not be relevant. (1) | Not Submitted or Academic Misconduct. (0) |