**COMP6015 Coursework**

**03/03/2023 17:00**

Due date and time**:**

**Coursework**

Assessment title :

|  |  |  |  |
| --- | --- | --- | --- |
| Module No: | **COMP6015** | Module title: | **Principals of Secure Operating Systems** |

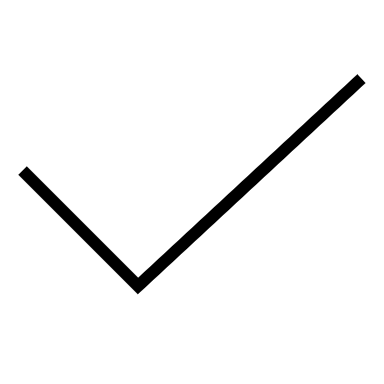
35 hours per student

Estimated total time to be spent on assignment:

**LEARNING OUTCOMES**

|  |
| --- |
| **On successful completion of this module, students will be able to achieve the module following learning outcomes (LOs):** *LO numbers and text copied and pasted from the module descriptor* |
| LO 1: Demonstrate a thorough understanding of the fundamentals of OS design, including process/thread, file, IO, and memory management. |
| LO 3: Critically evaluate the security, reliability, and protection in a given OS configuration. Use the results of the  evaluation to produce recommendations for hardening the system. |

|  |  |
| --- | --- |
| **Engineering Council AHEP4 LOs assessed (from S1 2022-23)**  *LOs copied and pasted from the AHEP4 matrix* | |
|  |  |
|  |  |
|  |  |
|  |  |

I declare that the work submitted is my own and that the work I submit is fully in accordance with the University regulations regarding assessments *(*[*www.brookes.ac.uk/uniregulations/current*](http://www.brookes.ac.uk/uniregulations/current)*)*

**COMP6015 – Principals of Secure Operating Systems - Coursework**

**Security of the Windows OS- File System Security**

1. ***A high-level description of the security features of an OS file system***

OS security is majorly important in keeping the rigidity and anonymity of the operating system’s data and user files. The security features of an established OS are in place to protect the system’s resources such as the CPU, Memory, Storage, and any important user data stored software/hardware-side.

If these systems are not in place or poorly developed , then the severity of an attack could be dire. Any user’s data is vulnerable if any unauthorized or malicious access is granted.

In the case of Windows, the windows OS currently has many features providing top-level security for users across all systems. Windows provides extensive measures to improve the encryption and protection of data, the robustness of its system/network security and the overall intelligence of its procedures, allowing the OS to evolve and learn to counter and battle ever-developing threats.

***Bibliography***

[1] JasonGerend (n.d.). *NTFS overview*. [online] learn.microsoft.com. Available at: https://learn.microsoft.com/en-us/windows-server/storage/file-server/ntfs-overview#increased-security [Accessed 2 Mar. 2023].

‌