



## PHILIPPINE COLLEGE OF SCIENCE AND TECHNOLOGY

Old Nalsian Road, Nalsian Calasiao, Pangasinan, Philippines 2418

Tel. No. (075) 522-8032/ Fax No. (075) 523-0894/ Website [www.philcst.edu.ph](http://www.philcst.edu.ph)

ISO 9001- 2015 CERTIFIED, Member: Philippine Association of Colleges and Universities (PACU)

Philippine Association of Maritime Institution (PAMI)



Mark Ian E. Ballesca

Information Management

BSIT3 BLK1

### ASSIGNMENT 2

#### **Securing Information Systems**

Information systems face several common threats, including malware, phishing attacks, insider threats, and data breaches. Malware, such as viruses and ransomware, can disrupt operations and compromise data. Phishing attacks trick users into revealing sensitive information, while insider threats arise from trusted individuals misusing access. Data breaches, often involving the unauthorized access to data, can lead to severe financial and reputational damage. To secure information systems, several methods are widely used. Encryption protects data by converting it into a coded format that can only be read by authorized users. Access control limits access to sensitive information based on user roles. Firewalls act as a barrier, filtering out malicious traffic from entering the system. Intrusion detection systems (IDS) monitor networks for suspicious activities, alerting administrators to potential threats. Multi-factor authentication (MFA) adds an extra layer of security by requiring users to verify their identity in multiple ways. Industry standards like ISO/IEC 27001 and frameworks such as the NIST Cybersecurity Framework offer comprehensive guidelines for managing and securing information systems. These standards help organizations implement best practices and maintain robust security controls to minimize risks effectively.