



THE UNIVERSITY OF WINNIPEG

APPLIED COMPUTER SCIENCE

Course Number: ACS-2821-050

Course Name: Information Security in Business

Course Web Page: <https://nexus.uwinnipeg.ca/d2l/home/50606>

Instructor Information

Instructor: Philemon Pak

E-mail: p.pak@uwinnipeg.ca

Office: 3C07 **Office Hours:** Monday: 14:00 - 15:00

Classroom: 3D04

Class Meeting Time: Monday: 18:00 – 21:00

Note: All class time and office hours will be posted on the Nexus course calendar.

Important Dates

First Class: January 9, 2023

Midterm Exam: February 13, 2023

Reading Week (No Classes): February 19 – February 25, 2023 (No Classes)

Final Withdrawal Date w/o academic penalty: March 14, 2023

(A minimum of 20% of the work on which the final grade is based will be evaluated and available to the student before the voluntary withdrawal date)

Last Class: April 3, 2023

Final Exam: **TBD**

University closures: Louis Riel Day February 20, 2023

Good Friday April 7, 2023

Course Objectives/Learning Outcomes

Information Security in Business will focus on the business aspect of information security, the why and what is information security and its importance to a business. Aside from security technologies that can be implemented to safeguard these assets, aspects of governance and management of information security will be considered as part of Information Security. The development of good corporate information technologies policies and procedures, management and operational framework and controls, and information security culture and awareness will be discussed in this course.

Evaluation Criteria For ACS-2821 Students

Assignments: 30%

- There will be 3 assignments worth 10% each.
- Due at 11:59:59 pm on due date.
- No late or handwritten assignment will be accepted. Only under special circumstances e.g. medical, death in a family, and etc. Circumstances are subject to approval before late assignment will be accepted and with a 20% penalty off for each late day.
- Assignments are to be submitted through Nexus. Written assignments should be in PDF (Portable Document Format) only.
- When submitting your assignment files, please name the file with your name, student ID and the assignment number, e.g. John Doe – 12345 – Assignment 1. So the file name should be John Doe – 12345 – Assignment 1.pdf.
- Assignments that do not meet all the requirements, including those for the submissions, may not be accepted or a portion of the marks will be deducted. Marks will be deducted for not following the file submission format, file naming format and instruction in the assignment.
- **Assignment can be long and will consume time to complete**, so please start early. Students are responsible for maintaining backups of their work. Students are responsible to review their assignments before submission to make sure the correct files are submitted. All assignments are to be completed individually.
- Multiple submissions are permitted but will only be accepting the last submission as official final and be marked. Students may submit a partially completed assignment and will receive credit for those attempted problems. Students are responsible for backing up and protecting their assignment work

Midterm Exam: 20%

- During regular class time.
- 1 hours 15 minutes duration
- No class after the Midterm Exam

Final Exam: 50%

- The final exam covers all material discussed in the course.
- 3 hours duration

Note: Students should contact the instructor as soon as possible if extenuating circumstances require missing an assignment, test, or examination. A medical certificate from a practicing physician may be required before any adjustments are considered.

Required Textbook(s)/Reading List

Information Security: Principles and Practices

Merkow & Breithaupt

2nd Edition, 2014

Pearson Education, Inc.

ISBN-13: 9780789753250

There may be additional reading materials that will be provided in class.

Class notes and notices will be posted on the Nexus course website. Students are responsible for material covered in class and announcements made in class and posted on Nexus.

Course Outline and Topic (Tentative)

Introduction to Information Security

What is information security?

Why is information security important in a business?

What are the key objectives of information security?

Who are the attackers?

Information Security Management

Governance and Risk Management

- IT Security Management
- IT Risk Assessment
- IT Security Controls, Plans, and Procedures
- IT Security Awareness Program and Initiatives

Business Continuity Planning and Disaster Recovery Planning

Law, Investigations, and Ethics

Information Security Technology

Physical Security Control

Operations Security

User Authentication and Access Control

Cryptography

Telecommunications, Network, and Internet Security

Note that all topics listed may not be covered and may be offered in a slightly different time order.

Note: A permitted or necessary change in mode of delivery may require adjustments to important aspects of course outlines, like class schedule and the number, nature, and weighting of assignments and/or exams.

Final Letter Grade Assignment

Historically, numerical percentages have been converted to letter grades using the following scale. However, instructors can deviate from these values based on pedagogical nuances of a particular class, and final grades are subject to approval by the Department Review Committee.

A+	90+ - 100%	B+	75 - 79%	C	60 - 64%
A	85 - 90%	B	70 - 74%	D	50 - 59%
A-	80 - 84%	C+	65 - 69%	F	below 50%

Test/Exam Requirements

- Photo ID is required for the final exam.
- The use of computers, calculators, phones, or other electronic devices is not permitted during exams.
- Midterm and final exams are closed book.

Students with documented disabilities, temporary or chronic medical conditions, requiring academic accommodations for tests/exams (e.g., private space) or during lectures/laboratories (e.g., note-takers) are encouraged to contact Accessibility Services (AS) at 204-786-9771 or accessibilityservices@uwinnipeg.ca to discuss appropriate options. All information about a student's disability or medical condition remains confidential.

<https://www.uwinnipeg.ca/accessibility-services>.

Students may choose not to attend classes or write examinations on holy days of their religion, but they must notify their instructors at least two weeks in advance. Instructors will then provide opportunity for students to make up work examinations without penalty. A list of religious holidays can be found in the 2020-21 Undergraduate Academic Calendar online at <http://uwinnipeg.ca/academics/calendar/docs/important-notes.pdf>

Prerequisite and Restriction Information*

(This information can be found in the UW General calendar)

- A grade of at least C in ACS-1803(3), or permission of the Department Chair.

*Make sure that you have the necessary prerequisites to take this course. If you have not successfully completed the above listed course(s), it is in your interest to go to student registration office and officially drop the course.

Student Wellness

The University of Winnipeg affirms the importance of student mental health and our commitment to providing accessible, culturally appropriate, and effective services for students. Students who are seeking mental health supports are encouraged to reach out to the Wellness Centre at studentwellness@uwinnipeg.ca or 204.988.7611. For community-based mental health resources and supports, students are encouraged to dial 2-1-1. This program of United Way is available 24/7 in 150 languages.

Regulations, Policies, and Academic Integrity

Academic dishonesty is a very serious offense and will be dealt in accordance with the University's policies.

Avoiding Academic Misconduct: Students are encouraged to familiarize themselves with the Academic Regulations and Policies found in the University Academic Calendar at: <https://uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf> Particular attention should be given to subsections 8 (Student Discipline), 9 (Senate Appeals) and 10 (Grade Appeals). Please note, in particular, the subsection of Student Discipline pertaining to plagiarism and other forms of cheating.

Detailed information can be found at the following:

- Academic Misconduct Policy and Procedures: <https://www.uwinnipeg.ca/institutional-analysis/docs/policies/academic-misconduct-policy.pdf> and <https://www.uwinnipeg.ca/institutional-analysis/docs/policies/academic-misconduct-procedures.pdf>
- UW Library video tutorial "Avoiding Plagiarism" <https://www.youtube.com/watch?v=UvFdxRU9a8g>

Uploading essays and other assignments to essay vendor or trader sites (filesharing sites that are known providers of essays for use by others who submit them to instructors as their own work) involves "aiding and abetting" plagiarism. Students who do this can be charged with Academic Misconduct.

Non-academic misconduct. Students are expected to conduct themselves in a respectful manner on campus and in the learning environment irrespective of platform being used. Behaviour, communication, or acts that are inconsistent with a number of UW policies could be considered "non-academic" misconduct. More detailed information can be found here:

- Respectful Working and Learning Environment Policy <https://www.uwinnipeg.ca/respect/respect-policy.html>,
- Acceptable Use of Information Technology Policy

<https://www.uwinnipeg.ca/institutional-analysis/docs/policies/acceptable-use-of-information-technology-policy.pdf>

- Non-Academic Misconduct Policy and Procedures: <https://www.uwinnipeg.ca/institutional-analysis/docs/student-non-academic-misconduct-policy.pdf> and <https://www.uwinnipeg.ca/institutional-analysis/docs/student-non-academic-misconduct-procedures.pdf>.

Copyright and Intellectual Property. Course materials are the property of the instructor who developed them. Examples of such materials are course outlines, assignment descriptions, lecture notes, test questions, and presentation slides—irrespective of format. Students who upload these materials to filesharing sites, or in any other way share these materials with others outside the class without prior permission of the instructor/presenter, are in violation of copyright law and University policy. Students must also seek prior permission of the instructor/presenter before, for example, photographing, recording, or taking screenshots of slides, presentations, lectures, and notes on the board. Students found to be in violation of an instructor’s intellectual property rights could face serious consequences pursuant to the Academic Misconduct or Non-Academic Misconduct Policy; such consequences could possibly involve legal sanction under the Copyright Policy https://copyright.uwinnipeg.ca/docs/copyright_policy_2017.pdf

Privacy

Students have rights in relation of the collecting of personal data the University of Winnipeg: <https://www.uwinnipeg.ca/privacy/admissions-privacy-notice.html>.

More information:

- Zoom and Privacy: <https://www.uwinnipeg.ca/privacy/zoom-privacy-notice.html>
- Testing/Proctoring: <https://www.uwinnipeg.ca/privacy/zoom-test-and-exam-proctoring.html>.

Email Communication Requirements, Class Cancellation, Correspondence from and with Students and Withdrawing from Course

Emails from accounts at uwinnipeg.ca are usually not filtered by the UofW email filter. Thereby it is recommended electronic communication used for the course utilize a UofW email account to minimize the risk of filtering. The use of an external email address may be blocked and filtered by the anti-spam system, e.g., Gmail.

When emailing the instructor, you are to use the **UofW Webmail system**, i.e., webmail.uwinnipeg.ca to communicate with the instructor. **Do not** use the Nexus email system, i.e., mail.nexus.uwinnipeg.ca, Nexus mailbox are not monitored on a regular basis.

The email sent to the instructor must include your full name, your student #, and the COURSE # and SECTION # (like ACS-2821-050) in the subject line of your email. A respectful manner is also expected in the email communications.

When it is necessary to cancel a class due to exceptional circumstances, the course instructor will make every effort to inform students via uwinnipeg email and Nexus.

Students are reminded that they have a responsibility to regularly check their uwinnipeg e-mail addresses to ensure timely receipt of correspondence from the University and/or the course instructor.

Please let the course instructor know if you plan on withdrawing from the course. Note that withdrawing before the VW date does not necessarily result in a fee refund.