# THE UNIVERSITY OF WINNIPEG

## APPLIED COMPUTER SCIENCE

Course Number:     ACS-1803-050
Course Name:       **Introduction to information Systems**
Course Webpage:    https://nexus.uwinnipeg.ca/d2l/home/62020

### Instructor Information

**Instructor:**           Trevor Nadeau
**E-mail:**               t.nadeau@uwinnipeg.ca
**Office Hours**:         Wednesday,   5:00PM-6:00PM – by appointment   via Zoom
**Class meeting time**:   Thursday,    6:00PM-9:00 PM       Room – 1L13

### Important Dates

1. First Class:                                        Thursday, May 9, 2024
2. Midterm Break:                                      Thursday, June 20, 2024
3. Midterm Test:                                       Thursday, June 27, 2024
4. Final Withdrawal Date w/o academic penalty**:       Friday, July 12, 2024
5. Week with recorded lecture (no in-person lecture)*: Thursday, July 25, 2024
6. Last Class:                                         Thursday, August 1, 2024
7. Final Exam (Comprehensive):                         TBD
8. University closures:  Victoria Day                  Monday, May 20, 2024
                         Canada Day                    Monday, July 1, 2024
                         Terry Fox Day                 Monday, August 5, 2024

*Lectures for this week will be delivered via pre-recorded videos, not in-person.
**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. It is recommended that you talk to your lecturer before making the decision to withdraw from the course.

### Course Objectives / Learning Outcomes

The course provides students with a basic conceptual understanding of computers and the basics of database and telecommunication technology. The course also addresses the question: "how can computers help a business (or other organization)?"  Highlights of business

application systems that support the functions of accounting, finance, marketing, human resource management and manufacturing will be provided.

Enterprise Resource Planning Systems, Customer Relationship Management Systems, Executive Information Systems, Decision Support Systems and Expert Systems are also covered. Further, topics of eBusiness and eCommerce are covered. The final section of the course introduces the student to the process of developing a customized computer-based information system, presenting the system development life cycle and outlining the work of a systems analyst.

In this course students will develop information system literacy as it differs from computer literacy. They will develop a thorough overview of the different way's computers can be used in organizational management and operations.

**Evaluation Criteria**

1. **Assignments (24%)**
   - Assignment 1 due *May 30, 2024 (6%)*
   - Assignment 2 due *June 27, 2024 (6%)*
   - Assignment 3 due *July 18, 2024 (6%)*
   - Assignment 4 due Aug 1, 2024 (6%)

**Assignment Submission**:
All assignments are due 11:59pm on the due date and are to be submitted electronically via Nexus. As a rule, students **WILL NOT** be able to submit their assignments **LATE** on Nexus, unless they have received an approval to do so before the due date. Students are required to submit documented extenuating circumstances, such as a medical situation, that prevented the timely completion of their work. Students can upload their assignments as either **PDF** file or in **Microsoft Word** format. Further details and submission procedures will be posted Nexus.

2. **Midterm Exam (26%) – June 27ᵗʰ, 2024**
   - During the regular class time
   - Missed exam will receive a mark of zero, unless a medical certificate is provided, no accommodation is made for missed exams.

3. **Final Exam (50%) – TBD**

- 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 accommodation is considered.
- Students are responsible for backing up and protecting their assignments.
- Keep a backup copy of all class work in case there is an error in recording of marks by the instructor.

## 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 may contact the instructor to ask questions.
- Communication with others (except the instructor) is NOT PERMITTED.
- All work must be entirely the students' own. Collaboration or sharing of work is NOT PERMITTED.

Students with documented disabilities, temporary or chronic medical conditions, requiring academic accommodations for tests/exams (e.g., private space) or during lectures (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. For further information, please visit 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 2019-20 Undergraduate Academic Calendar online at http://uwinnipeg.ca/academics/calendar/docs/important-notes.pdf

## 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.

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|---|---|---|---|---|---|
| A+ | 90 – 100% | B+ | 75 – 79% | C | 60 – 64% |
| A | 85 – 89 % | B | 70 – 74% | D | 50 – 59% |
| A- | 80 – 84% | C+ | 65 – 69% | F | below 50% |

## Required Text Book(s)/Reading List

- Fundamentals of Information Systems (8th edition), by Stair and Reynolds; Course Technology, ISBN13: 978-1-305-08216-8 **or**
- Fundamentals of Information Systems (9th edition), by Stair and Reynolds; Course Technology, ISBN13: 978-1-337-09753-6
- Additional Readings and Class Notes will be made available through the course website

and\or Nexus.

Lecture notes will be posted on NEXUS on the day of class. Recommended readings from the books should be completed before the next class and questions may be posted via email on at the start of the next class.

**Prerequisite Information\*** (This information can be found in the UW Undergraduate Academic calendar)

There are no formal pre-requisites listed in the calendar. However, it is assumed that students have a basic computer orientation.

## Regulations, Policies, and Academic Integrity

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).

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

Detailed information can be found at the following:

- Academic Misconduct Policy and Procedures:
  https://www.uwinnipeg.ca/policies/docs/policies/academic-misconduct-policy.pdf and
  https://www.uwinnipeg.ca/policies/docs/procedures/academic-misconduct-procedures.pdf
- About Academic Integrity and Misconduct, Resources and FAQs:
  https://library.uwinnipeg.ca/use-the-library/help-with-research/academic-integrity.html

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.

***Academic Integrity and AI Text-generating Tools:*** Students must follow principles of academic integrity (e.g., honesty, respect, fairness, and responsibility) in their use of material obtained through AI text-generating tools (e.g., ChatGPT, Bing, Notion AI). If an instructor prohibits the use of AI tools in a course, students may face an allegation of academic misconduct if using them to do assignments. If AI tools are permitted, students must cite them. According to the MLA (https://style.mla.org/citing-generative-ai/), writers should

- cite a generative AI tool whenever you paraphrase, quote, or incorporate into your own work any content (whether text, image, data, or other) that was created by it
- acknowledge all functional uses of the tool (like editing your prose or translating words) in a note, your text, or another suitable location
- take care to vet the secondary sources it cites

If students are not sure whether or not they can use AI tools, they should ask their professors.

***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. Behavior, 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/policies/docs/policies/acceptable-use-of-information-technology-policy.pdf
- Non-Academic Misconduct Policy and Procedures:
  https://www.uwinnipeg.ca/policies/docs/policies/student-non-academic-misconduct-policy.pdf and https://www.uwinnipeg.ca/policies/docs/procedures/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/basics/copyright-policy.html

## Privacy

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

**Class Cancellation, Correspondence with Students and Withdrawing from Course**

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 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.

**Topics to be covered (tentative list).**

The topics listed below relate to the overall course, where relevance in todays IMS environment is becoming of little value some subjects may not be covered.

1. Definition of Data, information, and Information Systems

2. Database concepts; database modeling, data warehousing and mining. Data integrity, privacy, security principles. Database Management Systems.

3. Information needs at different levels in the organization. Operational, Tactical and Executive information Systems. Information Processing modes 9Batch, Online, etc.)

4. Basic transaction processing and management reporting systems in: accounting, finance, marketing, human resources, manufacturing and supply chain management. Electronic Data Interchange, Enterprise Resource Planning systems.

5. Other types of business systems: Customer Relationship Management (CRM) Systems, Decision Support Systems, Geographic Information Systems, Expert Systems, Knowledge Management Systems, Global Information Systems, Vertical Area Systems, Office Automation Systems; Web-based information systems.

6. Using information systems for competitive advantage. The Web and electronic commerce; mobile commerce; Internet business models. Internet security related to monetary transactions.

7. Basic orientation to computer technology: hardware, programming languages and non-procedural software. System and application software. Operating systems.

8. Telecommunication / networking basics. Internet fundamentals; intranets, extranets.

9. Security, ethics and internal control in organizational information systems. System security components. Access controls, application controls, system controls. Information system auditing. Trust Services (e.g., WebTrust) and seals.

10. Developing a customized information system: strategic considerations in systems development; the system development life cycle: investigation, analysis, design, development, implementation, post implementation review.

11. Assessment and acquisition of information systems; proprietary, open source software; end-user development; in-house applications, cloud computing.

12. The work of a systems analyst; the Information Systems Department and its interaction with business departments.

*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.*