



# THE UNIVERSITY OF WINNIPEG

## APPLIED COMPUTER SCIENCE

**Course Number:** ACS-3801-001  
**Course Name:** Principles in Information Systems  
**Course Webpage:** <https://nexus.uwinnipeg.ca/d21/le/content/38468/Home> (Nexus)

### Instructor Information

**Instructor:** Victor Balogun  
**E-mail:** [vi.balogun@uwinnipeg.ca](mailto:vi.balogun@uwinnipeg.ca)  
**Office Hours:** Tuesdays 1:00pm – 2:00 pm **Office:** 3D18  
**Class meeting time:** Mon/Wed 2:30pm – 3:45 pm **Room:** 3D04

### Important Dates

1. First Class: Wednesday, September 4, 2024
2. Reading Week (no classes): October 14-18, 2024
3. Midterm Exam: Monday, October 21, 2024
4. Final Withdrawal Date w/o academic penalty\*: Monday, November 13, 2024
5. Last Class: Wednesday, November 28, 2024
6. Final Exam (Comprehensive): Date **TBD**
7. University closures:
  - Truth and Reconciliation Day: Monday, September 30, 2024
  - Thanksgiving: Monday, October 14, 2024
  - Remembrance Day: November 11, 2024

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.

\*Please note that withdrawing before the VW date does not necessarily result in a fee refund.

### Course Objectives / Learning Outcomes

This course is the final course for the 3-year degree in the Information Systems and the Health Informatics streams. The course can provide integration (e.g., project management), or provide

more depth in specific areas of Information Systems to address specific thematic needs. The course incorporates the Learning Goals of the Information Systems/Health Informatics Program, in particular *Critical Thinking, Teamwork, Quantitative Skills, Ethical Awareness, Oral Communication* and *Written Communication*.

The work undertaken in class will assist in the delivery of a cumulative final project/paper that encapsulates many facets of the previous classes taken by the student. At the end of this course, you will be able to answer the following Information Systems Frameworks and Management questions:

- How should information strategy be aligned with business and organizational strategies?
- How can a business achieve competitive advantages using it IS?
- How do organizational decisions impact IS decisions?
- How is the work of the individual in an organization and society affected by decisions concerning IS?
- How are information systems integrated with business processes?
- What are the components of an IS architecture?
- How are IS kept secure?
- How is the IT organization managed and funded?
- How are IS decisions made and the IT organization governed?
- What source should provide IS services/products and how and where should they be provided?
- How are IS projects managed and risks from change management mitigated?
- How is business intelligence managed within an organization?
- What ethical and moral considerations bind the uses of information in business?

### **Format**

This course relies heavily on classroom discussions, both individually to the class, and inside small groups. This course also relies on the analysis of business cases and the creation of recommendations and actions plans.

The teaching method for this class relies heavily on discussions: thus, active participation is essential for succeeding in this class. To achieve a good mark for participation, you should read the posted class notes ahead of class, attend class, and participate in discussions to which you have something substantive to add, and make several significant contributions, i.e., insightful questions or comments.

### **Evaluation Criteria**

The following structure identifies the criteria the student will be based upon. All work will be submitted electronically either through NEXUS or if required, via email back to the lecturer.

- **On-line Quizzes: 12%**
  - There will be a series of 4 quizzes posted on NEXUS that the student must undertake, each will be worth 3%
  - The quizzes will be undertaken **in-class** at the beginning of class on due dates.
  
- **Group Discussion and Reflections (12%):**

- Students will be expected to read the textbook, lesson notes, study the Review Questions and watch posted videos/links (if any) ahead of the class.
  - During class, students will be randomly distributed into groups.
  - The instructor will provide a relevant topic or guiding questions for students to discuss relating to the lesson of the day.
  - Students will discuss the topic/question in their groups for about **10 minutes**.
  - Students will be given limited time during class to write down their reflections/thoughts based on the discussion in the group discussion forum on Nexus.
  - Each group might be required to appoint a representative to summarize/debrief each group's findings.
  - Students will receive marks each week based on their group participation and reflection activities.
- **Midterm Exam (20%)** – *Monday, October 21, 2024*
- During the regular class time
  - Missed exams will receive a mark of zero, unless a medical certificate is provided, no accommodation is made for missed exams.
- **Capstone Mini-Project (26%)**  
(Development of Information System/Apps using Agile Development Methodology – see Table 1).
- Students will be randomly organized into Project Teams with each member of a team assigned a role.
  - The instructor will provide a list of projects that the students/team will select from.
  - Students, as a team will carry out the project using the Agile methodology that will be described in the class.
- Project Deliverables:**
- **Selection of Project Topic** – 0%
  - **Submission of Project Proposal** - 3%
  - **Submission of Project Analysis, Design and Development**- 5%
  - **Presentations** and Software Product demo - 10% (Group 4%, Individual 6%)
  - **Final Project Report** with APA style referencing - 5%
  - **Peer Evaluation** – 3%
- Project Proposal Format (Maximum 8 pages):**
- The instructor will provide the format for the Project Proposal.
- Final Project Report Format (Maximum 25 pages):**
- The instructor will provide the format for the Final Project report.
- **Final Exam (30%)** - Date **TBD**
- Cumulative

- 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 mid-term exam and the final exam. Students must be prepared to present their student ID.
- Midterm might be delivered via Nexus and proctored via Respondus. Students must have video capability and video must be turned on for the duration of the exam for proctoring.
- The final exam will be delivered in-person at an examination venue to be determined.
- 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 (e.g., note-takers) are encouraged to contact Accessibility Services (AS) at 204-786-9771 or [accessibilityservices@uwinnipeg.ca](mailto: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 2024-25 Undergraduate Academic Calendar online at <http://uwinnipeg.ca/academics/calendar/docs/important-notes.pdf>
- Since Respondus Proctoring tool products might be used to Proctor Nexus mid-term, please visit the following links for more information on Respondus:  
<https://web.respondus.com/he/lockdownbrowser/>  
<https://web.respondus.com/he/monitor/>

### **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 – 89 %	B	70 – 74%	D	50 – 59%
A-	80 – 84%	C+	65 – 69%	F	below 50%

### **Required Text Book(s)/Reading List**

**Managing and Using Information Systems: A Strategic Approach,**  
8th Edition by Keri E. Pearlson, Carol S. Saunders, Dennis F. Galletta  
ISBN: 9781394215492 (eBook)  
ISBN: 978-1-119-68889-1 (Paperback)

### **Prerequisite Information\***

(This information can be found in the UW Undergraduate Academic calendar)  
A grade of at least C in each of ACS-2814(3), ACS-2909(3), ACS-2913(3) and ACS-2916(3).

### **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](mailto: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**

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). Use of AI Tools is prohibited in this course: students may face an allegation of academic misconduct if using them to do assignments.

**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/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>

## **Respondus Privacy and Security**

The University of Winnipeg Information and Privacy Office has reviewed Respondus' privacy and security information. The Respondus Privacy Notice is posted on the University's website and can be viewed at: <https://www.uwinnipeg.ca/privacy/respondus-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/or using the preferred form of communication, as designated in this outline), as well as the Departmental Assistant and Chair/Dean so that class cancellation forms can be posted outside classrooms.

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.

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

- The Information Systems Strategy Triangle
- Strategic Use of Information Resources
- Organizational Strategy and IT
- Digital Systems and the Design of Work
- Information Systems and Digital Transformation
- Architecture and Infrastructure
- Security
- The Business of IT
- Governance of the Information Systems Organization
- Information Systems Sourcing
- Project Management
- Business Intelligence, Knowledge Management, and Analytics
- Privacy and Ethical Considerations in Managing Information

**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.

**Table 1: Proposed Sprints (Iterations) for Mini-Capstone Projects**

Core Processes (Agile)	Iterations (Sprints)						
	Project Preambles (Sept 5 – 16)	1 (Sept 18 - 30)	2 (Oct 6 - 14)	3 (Oct 16 - 28)	4 (Oct 30 – Nov 11)	5 (Nov 13 - 25)	6 (Nov 29 )
<b>Sprint Planning</b>	<ul style="list-style-type: none"> <li>Define the project.</li> <li>Identify Stakeholders</li> <li>Obtain requirements from stakeholders</li> <li>Create <b>Product backlog</b></li> <li>Plan the sprints</li> </ul>	<ul style="list-style-type: none"> <li><b>Sprint Backlog</b> - Team selects requirements items it commits to deliver by the end of sprint.</li> <li>Do Task Breakdown</li> <li>Maintain <b>Sprint burndown chart</b></li> </ul>					
<b>Design</b>							
<b>Development &amp; Testing</b>							
<b>Release (Deployment)</b>							
<b>Sprint Review</b>							
<b>Retrospective Meetings</b>		Final Product? No – Next					Complete System testing & Deploy solution
<b>Milestones (Deliverables)</b>	<ul style="list-style-type: none"> <li>Selection of proposed Topic and team member roles -</li> <li>Initial Meeting with stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Project Proposal (Project Plan/work breakdown)</li> </ul>			<ul style="list-style-type: none"> <li>Submission of Research Design, and Development</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>Final Project Completion Report</li> <li>Presentation</li> <li>System Demo</li> </ul>