# THE UNIVERSITY OF WINNIPEG

## APPLIED COMPUTER SCIENCE

Course Number:     ACS-3801-050
Course Name:       **Principles Information Systems**
Course Webpage:    http://courses.acs.uwinnipeg.ca/3801-050/ (Nexus)

## Instructor Information

**Instructor:**         Kevin Robertson
**E-mail:**             ke.robertson@uwinnipeg.ca
**Office Hours**:       Mondays      5:00-6:00 pm      **Office:**   online
**Class meeting time**: Mondays      6:00-9:00 pm      **Room:**     online

## Important Dates

1.  First Class:                                      Monday, September 14th, 2020
2.  Reading Week (no classes):                        October 11th-17th, 2020
3.  Final Withdrawal Date w/o academic penalty*:      Tuesday November 17th, 2020
4.  Last Class:                                        Monday December 7th, 2020
5.  Final Exam (Term Paper submission):               Monday December 14th, 2020
6.  University closures:

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| Thanksgiving | Monday October 12th, 2020 |
| Remembrance Day | Wednesday November 11th, 2020 |
| Louis Riel Day | Monday, February 15th, 2021 |
| Good Friday | Friday April 2nd, 2021 |

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 in order to address specific thematic needs.

The work undertaken in class will assist in the delivery of a cumulative final paper that encapsulates many facets of the previous classes taken by the student - but will entail a direct relationship to Health Information Systems.

Rather than take a project management approach to the delivery of information systems this class will focus on Service Delivery at operational, tactical and strategic levels. Thus the student will understand a framework for managing electronic systems in a services based approach.

## Remote Learning

All course materials including lecture notes, slides, assignments, and term paper details will be available on-line through the course website.  Class times are reserved for further discussion and Q&A, with the remaining time for office hours.

Nexus will be used for delivery of on-line quizzes and as an alternative repository for course materials should students be unable to access web site.

Students must be available via Zoom during the lectures and taking the on-line quizzes.
- Students must display their real/full name
- Use of video is optional – except during quizzes
- Participants must be muted when not speaking
- Students may interact via chat, voice or gestures or through email

Students can find answers to frequently asked questions related to remote learning here: https://www.uwinnipeg.ca/covid-19/remote-learning-faq.html.

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.

## Evaluation Criteria

Due to the changes the university are making delivery of this course available, the following structure identifies the criteria the student will be based upon.  All work will be submitted electronically either through NEXUS or via email back to the lecturer.

- **On-line Quizzes: 25%**
    - o There will be 5 quizzes posted to NEXUS that the student must undertake, each will be worth 5%
    - o Due at the beginning of class on due dates – completion of the quiz will require student to be on a Zoom call with video active (sound can be muted).

- o No late quiz responses will be accepted, or under special circumstances accepted with 20% off for each late day (can only be requested by contacting your lecturer as quizzes will be time constrained).
- o Multiple submissions are not permitted. Students may submit a partially completed assignment, and will receive credit for those attempted problems.

- – **Assignments: 25%**
  - o There will be 2 assignments posted on-line in the course website that the student must undertake, each will be worth 12.5% of the overall course mark
  - o Due at the beginning of class on due dates.
  - o All assignments will be handed in electronically via email to the course lecturer
  - o No late assignment responses will be accepted, or under special circumstances accepted with 20% off for each late day (can only be requested by contacting your lecturer as quizzes will be time constrained).
  - o Multiple submissions are not permitted. Students may submit a partially completed assignment, and will receive credit for those attempted problems.

- – **Term paper: Written (40%) + Presentation (10%)**
  - o You will be required to study a current article related to the course and submit a 30 page (or more) document based on the article you select. A short 5 minute on-line presentation by the student will be required to support their final paper. The presentation and the final paper will be worth a total of 50% of the course marks.

*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 or additional actions are considered.

## Test / Exam Requirements

- • Photo ID is required for midterm tests and the final exam.
- • Midterm and final exams will be delivered via Nexus and proctored via Zoom. Students must have video capability, and video must be turned on for the duration of the exam for proctoring.
- • Midterm and final exams are open book.
  - o Students are permitted to view only the following authorized course material:
    - ▪ Class notes, slides, recordings, sample code, assignment descriptions and solutions posted by the instructor
    - ▪ Course textbook
    - ▪ Student's own course notes and assignment submissions
  - o Students may use an external tool such as a text editor or IDE to write answers to questions before entering them into the exam
  - o Students may contact the instructor to ask questions
  - o External resources (or any material not listed above) are NOT PERMITTED
  - o 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/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 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

Healthcare Information Systems
Wagner, KA; Lee, FW; Glaser, JP;
4$^{th}$ Edition 2017
ISBN 978-1-119-33718-8 (Paperback)
ISBN 978-1-119-33712-6 (eBook)

## Optional Complementary Text Book(s)

Biomedical Informatics, Computer Applications in Health Care and Biomedicine
Shortliffe, Edward H.; Cimino, James J. (Eds)
Springer 4th Edition 2014
ISBN 978-1-4471-4473-1 (Hardcover)
ISBN 978-1-4471-4474-8 (eBook)

Lecture notes will be posted on the course website 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)
A grade of at least C in each of ACS-2814(3), ACS-2909(3), ACS-2913(3) and ACS-2916(3).


## 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.

## 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).

1. A Services Delivery Based Approach to Health Information Systems
   - Overview
   - Shared Services - Building a Services Model
   - Health Care Data
   - Service Description
   - IT Value

- IT Strategy

2. Services – Selection, Evaluation and Implementation
   - System Selection
   - System Implementation
   - Assessing Value
   - Organising Information Technology Services

3. Laws Regulations and Standards
   - Privacy and Security
   - Performance Standards and Measures
   - Standards

4. Senior Level (Strategic) Management issues
   - IT Alignment and Strategic Planning
   - IT Governance and Management