THE UNIVERSITY OF WINNIPEG

APPLIED COMPUTER SCIENCE

Course Number: ACS-4901-001
Course Name: Senior Systems Development Project
Course Webpage: https://nexus.uwinnipeg.ca/d2l/home/64212

Instructors Information :

Victor Balogun (Project Coordinator)	**James Deng**
3D18 (Office)	3D17 (office)
Email: vi.balogun@uwinnipeg.ca	Email: j.deng@uwinnipeg.ca

Class meeting time: Orientation Class will be held on Wednesday Sep. 4 (**1:00pm – 2:15pm**) in 3D03. Weekly team meeting will hold between **1:00pm – 2:15pm** as follows:
Team 1: Room 3D03 on Monday
Team 2: Room 3D03 on Wednesday
Team 3: Room 3C13 on Monday
Team 4: Room 3C13 on Wednesday

Important Dates

1. First Class:		Wednesday, September 4, 2024
2. Reading Week (no classes):		October 14-18, 2024
3. Christmas Break		December 23, 2024 – January 1, 2025
4. Final Withdrawal Date w/o academic penalty*:		Friday, February 14, 2025
5. Winter Reading Week (no classes)		February 17-21, 2025
6. University closures:	Truth and Reconciliation Day	September 30, 2024
	Thanksgiving	Monday, October 14, 2024
	Remembrance Day	November 11, 2024
	Louis Riel Day	Monday, February 17, 2025
	Good Friday	Friday, April 18, 2025

*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.

Deadlines[1]

Students should note that the plan for this year is to have some projects executed using the Waterfall methodology, while some projects will be executed using the Agile methodology. The students should further note that whichever methodology is used as suggested by the course coordinator, the following departmental deadlines and milestones will need to be met:

Agile Activities/Milestones	**Deadlines**
• Initial Meeting with the Project Sponsor	Week of September 9, 2024
Workshops: Machine Learning & Agile Methodology **SPRINT 0 – Preambles:** • Define the project. • Identify Stakeholders • Obtain requirements from stakeholders. • Create Product backlog. • Plan the sprints	September 9 – 25, 2024 (Wednesdays) September 30, 2024
• Project Plan **SPRINT 1**	October 4, 2024 October 31, 2024
• Project Planning Review (**Milestone 1**) SPRINT 2	Week of November 11, 2024 November 30, 2024
SPRINT 3	December 20, 2024
• Mid Project Review (**Milestone 2**) SPRINT 4	Week of January 13, 2025 January 31, 2025
SPRINT 5	February 28, 2025
SPRINT 6: • Complete System testing & Deployment • Sign-off from user	March 19, 2025
• Project Completion Seminar and System Demo. (**Milestone 3**)	Friday, March 21, 2025
• Sign-off on Course Completion Checklist.	Week of April 4, 2025

[1] Please refer to the ***Senior Systems Development Course Standards Handbook and Project Handbook***, Applied Computer Science Department, University of Winnipeg, 2024 for more details.

Course Objectives / Learning Outcomes

This course applies the principles and techniques of software project management covered in ACS-3901(3) to a significant systems development project undertaken by students in teams. A project proposal, project plan, regular status reports, and a completion report are required. All work must conform to proper analysis, design, programming, and documentation standards. Each team holds status reviews at appropriate life-cycle milestones. A final presentation and a formal demonstration of the system are required at the end of the project.

Evaluation Criteria

Deliverable Type	Total Score	Criteria	Score for Criteria	Team Component	Individual Component
PPR	**20%**	Project Participation	7%	3%	4%
		Documentation/Deliverables	7%	4%	3%
		PPR Presentation	6%	3%	3%
MPR	**20%**	Project Participation	7%	3%	4%
		Documentation/Deliverables	7%	4%	3%
		MPR Presentation	6%	3%	3%
PCR	**50%**	Project Participation	17%	6%	11%
		Documentation/Deliverables	17%	12%	5%
		Final Presentation	12%	4%	8%
		System Demo	4%	4%	-
PE (Overall)	**10%**	Peer Evaluation	10%	-	10%
Total			**100%**	**46%**	**54%**

Detail Description of Assessment Criteria

Project Component	Detail Description	Score
Project Participation	**Project Management (Group):** • All team members' collective contribution to ensuring that the project can be managed efficiently and effectively. This includes meeting deadlines and equitable distribution of workload. **Individual Contribution** • Quality of your own deliverables • Commitment to the project • Quality, thoroughness, and honesty of peer evaluations • Ability to communicate with end-users, instructors, team members and technical support personnel. **Individual Time Management** • Ability to meet your own task deadlines. **Participation** • Preparedness for and participation in, and quality of contribution to team meetings	31%
Project Documentation/Deliverables	**Documentations:** • All systems documentation and project documentation such as Proposal, Project Plans, Architectural Plans, PPR, MPR, Project Completion Report, Technical and User	31%

	Manuals, Correspondence, Project Repository, Program source code. **System Quality / Functionality:** • Overall design • Match with user requirements • Technical reliability • System features (e.g. input forms, screens and reports, system performance) • Flexibility for future improvements	
Presentation	**Presentation Content/Skills** • Project Plan Review • Project Completion Review • Mid Project Review/Testing	24%
Systems Demonstration	• Systems Demonstration & Evaluation	4%
Peer Evaluation	• Peer evaluations will be required by each student at the end of the course	10%

NOTE: Students may be required to upload deliverables (ex: Project Proposal, Plan, PPR Document and so on) to cloud systems such as Dropbox, Nextcloud or other as determined by individual IS Directors.

Email Communication

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 email sent to the instructor **must include your full name, your student#, and the COURSE# (like ACS-4901) in the subject line** of your email. If your email address already includes your name (like in UW's webmail) then you can skip typing your name there. A respectful manner is also expected in email communications.

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 Textbook / Reading List

- Past Project Repositories
- ***Senior Systems Development Course Standards and Project Handbook***, Applied Computer Science Department, University of Winnipeg, 2023.

Prerequisite Information

- **Prerequisites**: A grade of at least C in ACS-2814/3 (or the former ACS-2914/3), ACS-3901/3, ACS-3902/3, and ACS-3913/3, and a minimum average GPA of 2.0 in all ACS.xxxx courses previously taken.

Restrictions: Students cannot hold credit in this course and the former 92/91.3920/6

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 with 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/policies/docs/policies/academic-misconduct-policy.pdf and
  https://www.uwinnipeg.ca/policies/docs/procedures/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.

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 or projects. The instructor(s) will provide specific guidance if situation warrants the

use of any AI tool. In such instances, the students must seek for permission explicitly from their instructor before the use of such.

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/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.

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) and ACS Deadlines (Milestones) for 2024/25 Academic Year Projects

Core Processes (Agile)	Iterations (Sprints)						
	Project Preambles (Sept 2024)	**1 (Oct 2024)**	**2 (Nov 2024)**	**3 (Dec 2024)**	**4 (Jan 2025)**	**5 (Feb 2025)**	**6 (Mar 2025)**
Sprint Planning	• **Define the project.** • **Identify Stakeholders** • **Obtain requirements from stakeholders** • **Create Product backlog** • **Plan the sprints**	• **Sprint Backlog** - Team selects requirements items it commits to deliver by the end of sprint. • Do **Task Breakdown** • Maintain **Sprint burndown chart**					
Design							
Development & Testing							
Release (Deployment)							
Sprint Review							
Retrospective Meetings		Final Product? No – Next					Complete System testing & Deploy solution
ACS Milestones			Project Planning Review (**Milestone 1**) - Week of November 11, 2024		Mid Project Review (**Milestone 2**) - Week of January 13, 2025		Project Completion Seminar and System Demo. (**Milestone 3**) - Friday, March 21, 2025