CS 432 – Spring 2016
Business Systems Analysis

Instructor:	**Gustavo Fortes Tondello**
E-mail:	gfortestondello@uwaterloo.ca
Phone:	(226) 339-3155 (for urgent contact only, please)
Office hours:	By appointment at EC1 143 (The Games Institute)
Lectures:	Mon. / Wed. 8:30 – 9:50 am at MC 2038
TAs:	Luyu Wang (l366wang@uwaterloo.ca)
	Peng Zhao (p29zhao@uwaterloo.ca)

Syllabus

Course Description

The course emphasizes systems analysis as a discipline and attempts to identify the role of the systems analyst and end user in the analysis and synthesis of computer based business information systems. The course covers the concepts, skills, methodologies, techniques, and tools essential for the systems analyst to successfully develop information systems. The student is introduced to various business system application areas and different techniques of object-oriented analysis as well as structured and agile analysis.

Course Requirements

Prerequisites: CS 330 and third-year standing. Not open to Computer Science students.
Antirequisites: AFM 341/ACC 442, CS 445/ECE 451, MSCI 444, SE 463.

Course Notes

There is no formal textbook for this course. Posted lecture notes are the main resource for study. This course syllabus, the schedule, all lecture notes, and any additional information will be posted on the Waterloo Learn system (https://learn.uwaterloo.ca). Students are not required to bring the notes to each class as they will be projected during the lecture, but can do so if they prefer.

The following books are available at the DC library and can be used as additional readings for interested students, but reading these books is not required to pass this course.

- *Analysis and Design of Information Systems*, 3rd ed., Arthur M. Langer. Springer-Verlag, 2008.
- *Systems, Analysis and Design in a Changing World*, 6th ed., Satzinger, Jackson, and Burd. Boston, 2012.

Attendance
You are strongly encouraged to attend all the lectures. We are not using a formal text book in this course, so it is extremely important to attend the lectures. The lecture slides should be used to complement the in-class lectures and not to replace them.

Evaluation

Assessment	Due Date	Weight
Exams		**70%**
Mid-term exam	June/14 7:00 – 8:50 pm at MC 2035/2038	30%
Final exam	TBD	40%
Group Project		**20%**
Report 1: Preliminary investigation	June/8th	7%
Report 2: Conceptual analysis	July/6th	8%
Report 3: Data model	July/25th	5%
Experience		**10%**
Experience points (up to 1,000)	August/3rd	10%
Bonus		**5%**
Bonus report: Gamification OR Project Management	August/3rd	5%

To pass CS 432, a weighted average of 50% and a passing mark for the combination of mid-term and final exams are required. Minimum exams requirement: ½ (30% + 40%) = 35%.

Reports are to be uploaded to the group's Waterloo Learn Dropbox folder by the end of the scheduled day. There will be no extensions for the reports' due dates unless under extreme circumstances that are pre-approved. Late reports will be penalized 5% per day.

Experience points (XP) can be accumulated by completing designated tasks throughout all the term, at your convenience, until the scheduled final date (August/3rd).

Marked mid-term exams will be returned to the students in class and before lecture. Marked progress reports with comments will be returned to the students in Waterloo Learn. The bonus report can only increase the final grade up to and not over 100%.

Mid-term exam "no makeup" policy
There will be no deferred/makeup mid-term exam. Under extenuating circumstances that are pre-approved, where a student is unable to write the mid-term, the instructor will assign a higher weight to the student's final exam.

List of topics covered in this course

- Information Systems (IS) development (3 hours)
- Requirements analysis (3 hours)
- Object-oriented system analysis (9 hours)
- Structured system analysis (1.5 hour)
- Agile system analysis (1.5 hour)
- Data modeling and normalization (4.5 hours)
- Gamification of IS (3 hours)
- Project management (traditional) (3 hours)
- Project management (agile) (3 hours)

University Policies on Academic Integrity

Academic Integrity

In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. All members of the UW community are expected to hold to the highest standard of academic integrity in their studies, teaching, and research. The Office of Academic Integrity's website (www.uwaterloo.ca/academicintegrity) contains detailed information on UW policy for students and faculty. This site explains why academic integrity is important and how students can avoid academic misconduct. It also identifies resources available on campus for students and faculty to help achieve academic integrity in — and out — of the classroom.

Grievance

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 – Student Petitions and Grievances, Section 4,
http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm

Discipline

A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about 'rules' for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offences and types of penalties, students should refer to Policy 71 - Student Discipline,
http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm

Avoiding Academic Offences

Most students are unaware of the line between acceptable and unacceptable academic behaviour, especially when discussing assignments with classmates and using the work of other students. For information on commonly misunderstood academic offences and how to avoid them, students should refer to the Faculty of Mathematics Cheating and Student Academic Discipline Policy,
http://www.math.uwaterloo.ca/navigation/Current/cheating_policy.shtml

Appeals

A student may appeal the finding and/or penalty in a decision made under Policy 70 – Student Petitions and Grievances (other than regarding a petition) or Policy 71 – Student Discipline if a ground for an appeal can be established. Read Policy 72 – Student Appeals, http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm

Note for Students with Disabilities

AccessAbility Services (formerly the Office for Persons with Disabilities), located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities, without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term.