# **APPLIED COMPUTER SCIENCE**

Course Number: ACS-3916-001

Course Name: Human-Computer Interaction

Course Webpage: <a href="http://courses.acs.uwinnipeg.ca/3916-001/">http://courses.acs.uwinnipeg.ca/3916-001/</a>

#### 1 Instructor Information

Instructor: Jeanette Bautista

E-mail: je.bautista@uwinnipeg.ca

Office Hours: Thursdays 11:00 am-12:00 pm Office: 3D25

Class meeting time: Mon/Wed 4:00-5:15 pm Room: 2D12

#### 2 Important Dates

First Class: Wednesday, September 4, 2019
 Midterm Test: Monday, October 21, 2019
 Reading Week (no classes): October 13-19, 2019

4. Final Withdrawal Date w/o academic penalty\*: Tuesday, November 12, 2019

5. Last Class: Tuesday, Dec 3, 2019

Final Exam (Comprehensive): Saturday, December 14, 2019
 University closures: Thanksgiving Monday, October 14, 2019

Remembrance Day Monday, November 11, 2019

### 3 Course Objectives / Learning Outcomes

This course covers the fundamentals and concepts of design, implementation, and evaluation of human-computer interfaces. Topics include human cognitive aspects; user-centred design; design goals and principles; interface and interaction types; prototyping and construction; and evaluation methods. The design concepts are demonstrated using an interface development tool. In order to make a balance between theory and practice, emphasis is placed on a course-end project involving design, implementation and evaluation of the user interface for a specific application.

<sup>\*</sup>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.

#### 4 Evaluation Criteria

- 1. Assignments (10%)
  - Individual work
  - 2 assignments worth 5% each
  - May include any or a combination of the following:
    - Theory, design, prototyping, analysis exercises
- 2. Final Project (20%)
  - Group work
  - Due Dates:
    - Project Proposal: Week of September 23
    - Milestones 1&2: TBD
    - Final submission: December 1Presentation: December 2 & 3

Assignments and project deliverables will be accepted up to 1 day late with a 20% penalty.

Students are responsible for backing up and protecting their work.

Further information and dates to be posted on the course website.

Prototyping software will be used for this course. Balsamiq and UXPin will be introduced in assignments. Students may choose to use other tools for the course project with permission from the instructor.

- 3. Midterm Exam (20%)
  - The midterm exam will be during class on October 21
- 4. Final Exam (50%)
  - Cumulative
  - 3 hours duration

Students should contact the instructor as soon as possible if extenuating circumstances require missing a lab, assignment, test or examination. A medical certificate from a practicing physician may be required before any adjustments are considered.

### 5 Test / Exam Requirements

- Photo ID is required for the final exam.
- The use of computers, calculators, phones, or other electronic devices is not permitted on exams.
- Midterm and final exams are closed book.

#### 6 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%	С	60 – 64%
Α	85 – 89 %	В	70 – 74%	D	50 – 59%
A-	80 – 84%	C+	65 – 69%	F	below 50%

#### 7 Required Text Book / Reading List

- Interaction Design: Beyond Human-Computer Interaction, Preece, Rogers and Sharp, Wiley
  5<sup>th</sup> Edition 2019
  - ISBN 978-1-119-54725-9 (print)
  - ISBN 978-1-119-54730-3 (ebook)
- Additional readings and material that are not covered by the textbook will be provided by the instructor
- Class Notes will be available at http://courses.acs.uwinnipeg.ca/3916-001/

#### 8 Prerequisite Information

- Prerequisites: A grade of at least C in ACS-2909(3) and ACS-2814(3) (or the former ACS-2914(3))
- Restrictions: Students cannot hold credit in ACS-3916(3) and ACS-3816(3)

#### 9 Services for Students

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 <a href="mailto:accessibilityservices@uwinnipeg.ca">accessibilityservices@uwinnipeg.ca</a> to discuss appropriate options. All information about a student's disability or medical condition remains confidential. <a href="https://www.uwinnipeg.ca/accessibility-services">https://www.uwinnipeg.ca/accessibility-services</a>.

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 <a href="http://wwinnipeg.ca/academics/calendar/docs/important-notes.pdf">http://wwinnipeg.ca/academics/calendar/docs/important-notes.pdf</a>

All students, faculty and staff have the right to participate, learn, and work in an environment that is free of harassment and discrimination. The UW Respectful Working and Learning Environment Policy may be found online at <a href="https://www.uwinnpeg.ca/respect">https://www.uwinnpeg.ca/respect</a>.

#### 10 Misuse of Computer Facilities, Plagiarism, and Cheating

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

Avoiding Academic Misconduct and Non-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: <a href="https://www.uwinnipeg.ca/institutional-analysis/docs/policies/academic-misconduct-policy.pdf">https://www.uwinnipeg.ca/institutional-analysis/docs/policies/academic-misconduct-procedures.pdf</a>
- Non-Academic Misconduct Policy and Procedures: <a href="https://www.uwinnipeg.ca/institutional-analysis/docs/student-non-academic-misconduct-policy.pdf">https://www.uwinnipeg.ca/institutional-analysis/docs/student-non-academic-misconduct-procedures.pdf</a>

Misuse of Filesharing Sites. 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.

Avoiding Copyright Violation. Course materials are owned by the instructor who developed them. Examples of such materials are course outlines, assignment descriptions, lecture notes, test questions, and presentation slides. 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 photographing or recording slides, presentations, lectures, and notes on the board.

#### 11 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 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.

## 12 Topics to be covered (tentative)

- 1. Introduction to HCI
- 2. Understanding and Conceptualizing Interaction
- 3. Understanding Users
- 4. The process of Interaction Design
- 5. Identifying needs and establishing requirements
- 6. Observing Users
- 7. Design, Prototyping, and Construction
- 8. Evaluation
- 9. Information Visualization
- 10. Social Interaction
- 11. Special Topics in HCI