# Human-Computer Interaction

Computer Science 4163 (CRN 30919) \*

#### Summer 2002

Lecture Time: Mon., Wed., & Fri. 1:35pm - 2:25 Lecture Room: Room 4106, Killam Library Bldg.

Professor: James Blustein

Office Hours: Tues. 2:30pm - 3:55, Wed. 11:00am - 11:55, or by appointment

Office: Computer Science 223 E-mail: \(\sqrt{jamie@cs.dal.ca}\)

Telephone: 494-6104

Course website: (URL:http://www.cs.dal.ca/~jamie/CS4163/)

Required Human-Computer Interaction by Jenny Preece, Yvonne Rogers, Helen Sharp,
Textbook: David Benyon, Simon Holland, and Tom Carey. © 1994 by The Open University,

published by Addison-Wesley, 1999. (ISBN 0-201-62769-8).

Assessment Project 30% Components: Test #1 (12 June) 10%

Test #1 (12 June) 10%
Test #2 (12 July) 15%
Final exam 30%

Assignments, \

Homework, 15%

Quizzes

#### 1 Course Content and Goals

The purpose of human computer interaction (HCI) research and practice is to maximize the usefulness, productivity, safety and 'healthiness' of computer work.

A priority is consideration of users' physical, behavioural and information processing characteristics and requirements. Experience has shown that failure to deal with such characteristics can lead to wasted functionality, user frustration, inefficient practices, discomfort and error-prone activity.

We will stress the importance of suitable computer interfaces and study some basic aspects of human-computer interaction.

Students will gain practical experience and insight through the partial development and testing of the interface to an information system.

<sup>\*3</sup> credit hours, undergraduate course, syllabus version 24 June 2002 (1e).

## 1.1 Expectations

My rôle of your professor is not to teach as such but to *help you to learn*. You are responsible for your own learning. I will explain and motivate the material. I will give you assignments that will help you to practice and improve your skills. I will try to make the assignments interesting and challenging.

Our time in the classroom will be used for lectures, discussions, quizzes, and work in groups. I expect you to participate meaningfully in all of those activities.

I expected you to attend each class and to be on-time. If you miss a class, for any reason, you are responsible for the material covered, any assignments that were given, and any announcements that were made. I will try to make copies of lecture notes, etc. available at the Killam library, on my website, or both.

A tentative list of topics for us to study is at the end of this syllabus. The list and order may change depending on what the class as a whole has as background knowledge and what I feel is necessary for you to get the most out of the project. Before I lecture about most topics I will assign readings from the textbook or elsewhere for you. You will get the most benefit from the class if you have completed the assigned reading and made notes before the class. If you cannot complete the reading before the lecture and in-class discussion then you should do the reading carefully after class.

## 1.2 Help

You will find that there are many resources to help you in this class: your professor, the materials provided by your professor, the textbook, the lab, certain websites, and the other students. In the end however the responsibility for learning is yours. Details of the various assignments will be discussed in class. All students are expected to do their own work!

The office hours listed on the front of this syllabus are times when I will be in or near my office. You may drop-in to discuss anything related to the course during those times. If you want to meet with me at some other times then it is best for you to make appointment, but you can also come to my office in case I have time available right then. You can make appointments in person (e.g. after class or during my office hour), by e-mail or by telephone.

## 2 Policies and Rules

Students are subject to all applicable University and Faculty policies. By your enrollment in this course beyond the first day you are deemed to be fully aware of all such obligations and responsibilities so most of them will not be repeated here. I do want to draw your particular attention to some of them however.

Any student wishing to discuss an accommodation on the basis of permanent or temporary disability is asked to register with the office for Services for Students With Disabilities (in room 120 of the Student Union Building, or by telephone at 494-2836). Your grade should reflect how much you can demonstrate you know and can apply about the topics of this course. If you have registered with that Office then I will be guided by their advice in deciding how you are asked to demonstrate that knowledge.

Plagiarism will not be tolerated. You must do your own work and provide proper credit when quoting or paraphrasing the work of others. This policy applies equally to text, images, and program code. You may use any standard style guide you wish so long as you use it consistently. The reference desk at the Killam library or your professor can offer suggestions for style guides. When citing webpages you must include the following: (1) the address of the webpage, (2) the author of the webpage or a note that it is anonymous, (3) the date that the page was last updated or, if that is not available, the date that you read the page and a note to that effect.

#### 2.1 Assignments and Homework

Multi-page homeworks must be neatly stapled and your name and row number must appear on the top sheet. Homeworks that are not stapled and documented will not receive full marks.

## 2.2 Quizzes, Tests, and Exams

All tests, and quizzes will be held in the classroom. Exams will be scheduled by the Faculty and University. There will be no make-ups for quizzes. The quizzes are intended mostly to give you and me and indication of how well you understand material recently covered. Your lowest quiz score will not be used in the computation of your grade.

No make-up tests will be given without my permission. You will not get my permission without either prior notice of absence, a detailed letter from your physician, or evidence of a serious family crisis that required your attention. Make-up exams and tests may be administered in an essay form.

### 2.3 Grading Scale

The definitions of grade levels are in the Dalhousie University 2000/2001 Undergraduate Calendar (Feb. 2002, Section 17.1, p. 35). I will use the following chart to convert from the numeric grades you earn to the letter grade that will be recorded at the end of the course.

This scale may be lowered but will not be raised.

#### 2.4 Late Policy

Since my comments on your work should influence the next stage of your project it is especially important that I receive your assignments on time. Late work will be penalized 5% per day (or part thereof) for the first day, and 10% per day after that. Saturday and Sunday will count as one day for this policy. You may not receive credit for work that is more than 4 days late.

# 3 Tentative Outline

# 3.1 Topics

1. Introduction to HCI

what is HCI, why we need it how it fits into software design

- 2. introduction to usability engineering and project
- 3. Models of usability
- 4. Basics properties of users

sensation, perception, cognition, & motor skills

- 5. Evaluation of user interfaces
- 6. Design methods
- 7. Interaction styles

menus, GUIs, direct manipulation, form fill-in, command lines

## 3.2 Project and Test Dates

27 May user analysis and feature list due

03 Jun task analysis due

12 Jun test #1

17 Jun design document due

26 Jun testing strategy due

**12 Jul** test #2

17 Jul demonstration of first prototype

24 Jul final version due

#### 3.3 Calendar

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Su		12	19	26	2	9	16	23	30	7	14	21	28	4	Su
${f M}$	6	13	<del>20</del>	27	3	10	17	24	1	8	15	22	29	5	$\mathbf{M}$
Tu	7	14	21	28	4	11	18	25	2	9	16	23	30	6	Tu
$\mathbf{W}$	8	15	22	29	5	12	19	26	3	10	17	24	31	7	$\mathbf{W}$
${ m Th}$	9	16	23	30	6	13	20	27	4	11	18	25	1	8	${ m Th}$
$\mathbf{F}$	10	17	24	31	7	14	21	28	5	12	19	26	2	9	$\mathbf{F}$
Sa	11	18	25	1	8	15	22	29	6	13	20	27	3	10	Sa
		May			Jun					Jul				Aug	
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#### Note

I will be out-of-town for the week of 9 June (week #6 above). There will be a guest lecturer that week.