



## Department of Psychology

### HUMAN FACTORS (PSYC 425) Winter 2008

Lecture (LEC 01) T, Th 11:00-12:15 p.m., EDC 384  
Laboratory (LAB B01) T 1:00 p.m., A 253  
Laboratory (LAB B02) F 8:00 a.m., A 253

#### COURSE OUTLINE

<b>Instructor:</b>	Dr. Jeff Caird	<b>Hours:</b>	T, Th: 10:30 to 11:00 a.m. or by appointment
<b>Office:</b>	Admin. 222	<b>E-mail:</b>	<a href="mailto:jkcaird@ucalgary.ca">jkcaird@ucalgary.ca</a>
<b>Telephone:</b>	220-5571	<b>E-mail:</b>	<a href="mailto:smilloy@ucalgary.ca">smilloy@ucalgary.ca</a>
<b>Lab Instructor:</b>	Shaunna Milloy	<b>Hours:</b>	TBA
<b>Office:</b>	A067		
<b>Telephone:</b>	220-5910		

---

**Course Description:** This course surveys the theory and data pertaining to the relationships between human and machine behavior. A research paper is an integral part of this course. Psychology 312 is a prerequisite.

#### Topics to be covered:

1. Introduction and Historical Context
2. Research & Evaluation Methods
3. Sensory Systems
4. Cognition & Decision Making
5. Displays & Controls
6. Anthropometry & Workplace Design
7. Stress & Workload
8. Accidents and Human Error
9. Human-Computer Interaction & Automation
10. Transportation Human Factors
11. Medical Human Factors
12. Technosophy & Human Factors

**Texts:** (Available at the Bookstore and online.)

Vicente, K. (2003). *The human factor*. Toronto: Vintage Canada.

Wickens, C. D., Lee, J., Lui, Y., & Gorden-Becker, S. (2004). *An introduction to human factors engineering (2<sup>nd</sup> ed.)*. Upper Saddle River, N.J.: Pearson Education.

**Examinations:**

- 1) A quiz will be given on **February 5th** that covers Vicente (2003).
- 2) The mid-term exam on **February 28<sup>th</sup> (Th)** will cover readings and lectures through February 26th (T).
- 3) The final exam will stress the final half of the course readings and lectures, however, a portion of it will be cumulative (e.g., usability, sensation and perception, etc.). The final exam will be scheduled by the Registrar.
- 4) The format of exams is approximately 40% multiple choice and 60% essay. Exams are closed book.

**Written Papers:**

A major written paper is part of the course requirements. A paper proposal is due during lab. on Feb 26<sup>th</sup> or Feb 29<sup>th</sup>. The paper proposal should be structured into a one-page outline of the topics that are to be addressed in the review. The instructor and the T.A. will provide guidance in the selection of appropriate topics. Students are expected to select a topic, research it in depth, write a review outside of class, and edit it extensively. APA (5.0) formatted papers shall not exceed twenty pages inclusive of references. Papers are due **April 10th (Th) at 4:00 p.m. No exceptions**. Students will give a presentation of their paper for about 5 minutes in class (**April 10<sup>th</sup>, 15<sup>th</sup>, 17<sup>th</sup>**). The presentation should cover the topic reviewed and the important conclusions reached.

**Distribution of Grades:**

Laboratory Assignments	25%
Quiz	10%
Paper	25%
Mid-term Exam	15%
Final Exam	25%
Total	100%

Feedback will be liberally provided so that you will know how you are performing in the class. For example, each component will be assigned a numerical score and a letter grade (e.g., 171 out of 200 points for a B on the mid-term).

### **The Relationship of 425 to the University of Calgary Curriculum Objectives**

This course addresses all of the core competencies and redesign features through lecture content, course requirements, collaborative learning exercises and laboratories.

### **Final Grading Scale:**

Numerical scores for each component will be totaled to calculate the final grade. Final course grades will be assigned according to the scale below. "Curving-down" will not be performed on the distribution of grades.

A+	96-100%	B+	80-84%	C+	67-71%	D+	54-58%
A	90-95%	B	76-79%	C	63-66%	D	50-53%
A-	85-89%	B-	72-75%	C-	59-62%	F	0-49%

### **IMPORTANT Class Policies:**

- 1.) Your laboratory reports and research papers are due on the days listed. Late assignments will not be accepted. Exam make-ups and late assignments will be considered for "university valid" excuses and only with sufficient documentation. Make-up exams will be essay only and more difficult than the exam given to the whole class.
- 2.) When questions arise about a particular laboratory, paper, or exam score, a student must discuss their work with the instructor or T.A. within two weeks after it has been returned. Failure to pick-up assignments when they are returned is not a valid excuse. After two weeks re-evaluation will not be considered.
- 3.) Any tape recordings of lectures must be approved by the lecturer and students in this course may be asked to participate in departmentally approved studies.
- 4.) Intellectual honesty is the cornerstone of the development and acquisition of knowledge and requires that the contribution of others be acknowledged. Consequently, plagiarism or cheating on any assignment is regarded as an extremely serious academic offense. Students should examine sections of the University Calendar which present a Statement of Intellectual honesty and definitions and penalties associated with Plagiarism/Cheating/and Other Academic Misconduct.

## Schedule of Lecture Topics and Assigned Readings:

Topic	Reading
History/Intro	Chapter 1
Research Methods	Chapter 2
Design and Evaluation Methods	Chapter 3
Usability Engineering	
Visual Sensory Systems	Chapter 4
Audition, Tactile, Vestibular	Chapter 5
Cognition/Attention	Chapter 6
<b>Midterm</b>	<b>February 28th (Th)</b>
Decision Making	Chapter 7
Displays	Chapter 8
Controls	Chapter 9
Anthropometry/Workspace Design	Chapter 10
Stress & Workload	Chapter 13
Human Error	Chapter 13
Medical HF	
Aging HF	
Transportation HF	Chapter 17
Papers Due: <b>April 10th (Th) @ 4:00 p.m.</b>	Final Examination: <b>TBA</b>

## Important Dates:

No Labs	January 15 <sup>th</sup> and 18 <sup>th</sup> (T, F)
Last day to get a refund	January 18 <sup>th</sup> , 2008 (F)
<b>Quiz</b>	Feb. 5 <sup>th</sup> , 2008 (T)
<b>Midterm Exam:</b>	February 28th (Th)
<b>Paper Proposals Due:</b>	February 26 <sup>th</sup> and 29th (Scheduled In Lab.)
Reading Days (No lecture)	February 19 <sup>th</sup> and 21st (No Lectures)
<b>Papers Due:</b>	April 10th (Th) @ 4:00 p.m.
<b>Paper Presentations:</b>	April 10 <sup>th</sup> , 15 <sup>th</sup> , 17 <sup>th</sup> (Scheduled)
Last Day of Lectures	April 18th (F)
Last Day to Withdraw	April 18th (F)
<b>Final Exam</b>	To be scheduled by Registrar's office

## Written Assignments

Laboratories are to be handed to the instructor or placed in the green box outside 275 prior to the due date and time. The written paper must be submitted as hardcopy and by email forms. No late assignments will be accepted (i.e., a 0 will be assigned).

### **Reappraisal of Grades**

A student who feels that a piece of graded term work (term paper, essay, test, etc.) has been unfairly graded, may have the work re-graded as follows. The student shall discuss the work with the instructor within fifteen days of being notified about the mark or of the item's return to the class. If not satisfied, the student shall immediately take the matter to the Head of the department offering the course, who will arrange for a reassessment of the work within the next fifteen days. The reappraisal of term work may cause the grade to be raised, lowered, or to remain the same.

If the student is not satisfied with the decision and wishes to appeal, the student shall address a letter of appeal to the Dean of the faculty offering the course within fifteen days of the unfavourable decision. In the letter, the student must clearly and fully state the decision being appealed, the grounds for appeal, and the remedies being sought, along with any special circumstances that warrant an appeal of the reappraisal. The student should include as much written documentation as possible.

### **Plagiarism and Other Academic Misconduct**

Intellectual honesty is the cornerstone of the development and acquisition of knowledge and requires that the contribution of others be acknowledged. Consequently, plagiarism or cheating on any assignment is regarded as an extremely serious academic offense. Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Students should examine sections of the University Calendar that present a Statement of Intellectual honesty and definitions and penalties associated with Plagiarism/Cheating/Other Academic Misconduct.

### **Academic Accommodation**

*It is the student's responsibility to request academic accommodations.* If you are a student with a documented disability who may require academic accommodation and **have not** registered with the Disability Resource Centre, please contact their office at 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.

### **Absence From A Test**

Make-up exams are NOT an option without an official University medical excuse (see the University Calendar). You must contact the instructor before the scheduled examination or you will have forfeited any right to make up the exam. At the instructor's discretion, a make-up exam may differ significantly (in form and/or content) from a regularly scheduled exam. Except in extenuating circumstances (documented by an official University medical excuse), a makeup exam is written within two (2) weeks of the missed exam.

A completed Physician/Counselor Statement will be required to confirm absence from a test for health reasons. The student will be required to pay any cost associated with the Physician Counselor Statement.

### **Student Organizations**

Psychology students may wish to join the Psychology Undergraduate Students' Association (PSYCHS). They are located in the Administration building, room 170 or may be contacted at 220-5567.

**Student Union VP Academic:** Phone: 220-3911 [suypaca@ucalgary.ca](mailto:suypaca@ucalgary.ca)  
**Student Union Faculty Rep.:** Phone: 220-3913 [socialscirep@su.ucalgary.ca](mailto:socialscirep@su.ucalgary.ca)