

Psychology 425		Human Factors		Fall 2017
Instructor:	Dr. Jeff Caird	Lecture Location:	ST 064	
Phone:	(403) 220-8441	Lecture Days/Time:	T/Th 9:30 to 10:45 a.m.	
Email:	jkcaird@ucalgary.ca	Lab. Times:	LAB 1: T 11 – 12:50, EDC 152 LAB 2: Th 11 – 12:50 SA 123	
Office:	Admin. 222	TA:	Sarah Simmons	
Office Hours:	TBA	Office:	67 Administration	

Course Description

This course surveys the theory and data pertaining to the relationships between humans and technology. A research paper and laboratory experiences are integral parts of this course.

Course Learning Outcomes

The Department of Psychology is committed to student knowledge and skill development. The table below lists the key learning outcomes for this course, the program-learning outcomes they facilitate (see psyc.ucalgary.ca/undergraduate/program-learning-outcomes), and the expected level of achievement.

Course Learning Outcomes	Assessment Methods	PLO(s)	Level(s)
Students will apprehend and articulate the knowledge and methods within human factors.	Multiple choice and essay exams.	1,5,7	A
Students will apply knowledge and methods to a variety of contexts and problems.	Laboratory assignments, essays exams, group activities.	2,6,7	C
Students will search and synthesize knowledge on a specific topic.	Research paper, presentations.	3,5,7	C

Notes. PLOs = Program-Learning Outcomes: 1 = demonstrate knowledge of psychological sciences, 2 = think critically and solve problems, 3 = conduct research and analyze data, 4 = communicate effectively, 5 = demonstrate information literacy, 6 = understand and implement ethical principles, 7 = apply psychological knowledge and skills. Level of PLO achievement facilitated by this course: I = introductory, C = competency, A = advanced.

Prerequisites

Psychology 312 – Experimental Design and Quantitative Methods for Psychology

Required Texts (available from the Bookstore and online)

Vicente, K. (2003). *The Human Factor*. Toronto: Vintage Canada.

Lee, J.D., Wickens, C.D., Lui, Y., & Boyle, L.N. (2017). *An Introduction to Human Factors Engineering* (3rd ed.). Upper Saddle River, N.J.: Pearson Education.

Evaluation

Examinations:

- 1) The mid-term exam on **October 22nd (T)** will cover readings (C1–6, Vicente) and lectures through Oct. 19th. The midterm is closed book.
- 2) The final exam will stress the final half of the course readings (C7–10) and lectures, however, a portion of it will be cumulative (e.g., usability, attention, etc.). The final exam will be scheduled by the Registrar and will be two hours in length and is again closed book.
- 3) The format of the midterm and final exams is approximately 60% multiple choice and 40% essay. The weighting of each exam is indicated under the Distribution of Grades. A review sheet will be provided prior to each exam with example essays. The use of iPods, iPads, computers, books or notes during all tests is prohibited.

Laboratories:

Six laboratories assignments are required and comprise 30% of the final grade. Each laboratory is worth 5% of the final mark. The TA will provide a detailed laboratory handout on DTL that outlines each of the laboratories, marking expectations, methods of submission, due dates and late assignment penalties. Students must achieve a passing grade on both the class and lab components to pass this course. The following list of laboratories is tentative:

Date	Laboratory
Sept. 19/21	Design Lab.
Sept. 26/28	Usability Engineering I
Oct. 3/5	Usability Engineering II
Oct. 17/19	Pictorial Evaluation/Design
Oct. 24/26	Paper Proposals, Sign-Up
Oct. 31/Nov. 2	Workspace Layout
Nov. 14/16	Aging Lab.
Nov. 21/23	Self-driving Vehicles

Written Papers:

A major written paper is part of the course requirements. A paper proposal is due during lab. on either October 24th and 26th. The paper proposal should be structured into a one-page outline of the topics that are to be addressed in the review and summarize a minimum of three empirical papers. The Instructor and 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 (6.0) formatted papers shall not exceed 15 pages inclusive of references. Papers are due **November 30th (Th) at 4:00 p.m. No exceptions.** I will not accept emailed papers. Students will give a presentation of their paper for about 5 minutes in class (Nov. 30th, **Dec. 5th, 7th**). The presentation should cover the topic

reviewed and the important conclusions reached. Presentations constitute approximately 2% of the final grade and missed presentations will be assigned a 0.

Distribution of Grades:

Laboratory Assignments	30%
Paper	20%
Mid-term Exam	20%
Final Exam	30%
Total	100%

Department of Psychology Criteria for Letter Grades

Psychology professors use the following criteria when assigning letter grades:

A+ grade: *Exceptional Performance.* An A+ grade indicates near perfect performance on multiple choice and short answer exams. For research papers/essays/course projects/presentations, an A+ grade is awarded for exceptional work deserving of special recognition and is therefore not a common grade.

A, A- Range: *Excellent Performance.* Superior understanding of course material. Written work is very strong in terms of critical and original thinking, content, organization, and the expression of ideas, and demonstrates student’s thorough knowledge of subject matter.

B Range: *Good Performance.* Above average understanding of course material. Written work shows evidence of critical thinking and attention to organization and editing but could be improved in form and/or content.

C Range: *Satisfactory Performance.* Adequate understanding of course material. Knowledge of basic concepts and terminology is demonstrated. Written work is satisfactory and meets essential requirements but could be improved significantly in form and content. Note: All prerequisites for courses offered by the Faculty of Arts must be met with a minimum grade of C-.

D range: *Marginally meets standards.* Minimal understanding of subject matter. Written work is marginally acceptable and meets basic requirements but requires substantial improvements in form and content. Student has not mastered course material at a level sufficient for advancement into more senior courses in the same or related subjects.

F grade: *Course standards not met.* Inadequate understanding of subject matter. Written work does not meet basic requirements. Student has not demonstrated knowledge of course material at a level sufficient for course credit.

Grading Scale

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%

As stated in the University Calendar, it is at the instructor's discretion to round off either upward or downward to determine a final grade when the average of term work and final examinations is between two letter grades. In this course there will be no rounding up of final grades, especially in light of the opportunities students have to increase their final grade via research participation.

Tentative Lecture Schedule

Date	Topic/Activity/Readings/Due Date (revise and add columns & rows as necessary)
T Sep 12	Lecture begins.
T, Th Sept. 12, 14	No Labs. (First week)
F Sep 22	Last day to drop full courses (Multi-term) and Fall Term half courses. No refunds for full courses (Multi-term) or Fall Term half courses after this date.
M Sep 25	Last day to add or swap full courses (Multi-term) and Fall Term half courses. Last day for change of registration from audit to credit or credit to audit.
F Sep 29	Fee payment deadline for Fall Term full and half courses.
M Oct 9	Thanksgiving Day, University closed (except Taylor Family Digital Library, Law, Medical, Gallagher and Business Libraries). No lectures.
R Oct 24	Midterm Exam: Chapters 1 to 6, Vicente
R Nov 9-12	Reading Days. No lectures.
M Nov 13	Remembrance Day (Observed). University Closed (except Taylor Family Digital Library, Law, Medical, Gallagher and Business Libraries). No lectures.
R Nov 30	Review paper due by 4:00 p.m.
R Nov 30	Paper Presentations
T Dec 5	Paper Presentations
R Dec 7	Paper Presentations
F Dec 8	Fall Term Lectures End. Last day to withdraw with permission from Fall Term half courses.
TBA	Final Exam to be scheduled by Registrar's office.
Dec 11-21	Fall Term Exam Period.

Approximate Lecture Schedule

	Dates	Topic(s)	Readings
1.	Sept. 12, 14	Introduction and Historical Context	Lee et al., C1
2.	Sept. 19, 21	Research & Evaluation Methods	Lee et al., C2, C3
3.	Sept. 26, 28, 3, 5	Visual & Auditory Systems	Lee et al., C4, C5
4.	October 10, 12	<i>The Human Factor</i>	Vicente (2003)
5.	Oct. 17, 19	Cognition	Lee et al., C6
6.	Oct. 26	Decision Making	Lee et al., C7
7.	Nov. 1, 3	Displays & Controls	Lee et al., C8, C9

8.	Nov. 7	Anthropometry & Workspace Design	Notes
8.	Nov. 14	Aging Human Factors	Notes
9.	Nov. 16, 21	Transportation Human Factors Automation	Notes C11
10.	Nov. 23, 28	Healthcare Human Factors	Notes
11.	Nov. 30, Dec. 5, 7	Paper Presentations	

Reappraisal of Grades

A student who feels that a piece of graded term work (e.g., term paper, essay, test) has been unfairly graded, may have the work re-graded as follows. The student shall discuss the work with the instructor within 15 days of being notified about the mark or of the item's return to the class; no reappraisal of term work is permitted after the 15 days. 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 15 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 15 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 Accommodations

The student accommodation policy can be found at: ucalgary.ca/access/accommodations/policy. Students needing an Accommodation because of a Disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities ucalgary.ca/policies/files/policies/student-accommodation-policy. Students needing an Accommodation based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the instructor.

Absence From A Test/Exam

Makeup tests/exams are **NOT** an option without an official University medical excuse (see the University Calendar). A completed Physician/Counselor Statement will be required to confirm absence from a test/exam for health reasons; the student will be required to pay any cost associated with this Statement. Students who miss a test/exam have up to 48 hours to contact the instructor and to schedule a makeup test/exam. Students who do not schedule a makeup test/exam with the instructor within this 48-hour period forfeit the right to a makeup test/exam. At the instructor's discretion, a makeup test/exam may differ significantly (in form and/or content) from a regularly scheduled test/exam. Except in extenuating circumstances (documented by an official University medical excuse), a makeup test/exam must be written within 2 weeks of the missed test/exam during exam make-up hours provided by the department <http://psychology.ucalgary.ca/undergraduate/exam-and-course-information#mues>. If a student cannot write their final exam on the date assigned by the Registrar's Office, they need to apply for a deferred exam http://www.ucalgary.ca/registrar/exams/deferred_final. Under no circumstances will this be accommodated by the department.

Travel During Exams

Consistent with University regulations, students are expected to be available to write scheduled exams at any time during the official December and April examination periods. Requests to write a make-up exam because of conflicting travel plans (e.g., flight bookings) will NOT be considered by the department. Students are advised to wait until the final examination schedule is posted before making any travel arrangements. If a student cannot write their final exam on the date assigned by the Registrar's Office, they need to apply for a deferred exam http://www.ucalgary.ca/registrar/exams/deferred_final. Under no circumstances will this be accommodated by the department.

Freedom of Information and Protection of Privacy (FOIP) Act

The FOIP legislation disallows the practice of having student's retrieve tests and assignments from a public place. Therefore, tests and assignments may be returned to students during class/lab, or during office hours, or will be made available only for viewing during exam review sessions scheduled by the Department. Tests and assignments will be shredded after one year. Instructors should take care to not link students' names with their grades, UCIDs, or other FOIP-sensitive information.

Acknowledgments and Respect for Diversity

Our classrooms view diversity of identity as a strength and resource. Your experiences and different perspectives are encouraged and add to a rich learning environment that fosters critical thought through respectful discussion and inclusion. The Department of Psychology would also like to acknowledge the traditional territories of the people of the Treaty 7 region in southern Alberta. The City of Calgary is also home to Métis Nation of Alberta, Region III.

Campus Mental Health Strategy

The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the excellent mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, <https://www.ucalgary.ca/wellnesscentre/services/mental-health-services>) and the Campus Mental Health Strategy website (<http://www.ucalgary.ca/mentalhealth/>).

Course Credits for Research Participation (Max 2% of final grade)

Students in most psychology courses are eligible to participate in Departmentally approved research and earn credits toward their final grades. **A maximum of two credits (2%) per course, including this course, may be applied to the student's final grade. Students earn 0.5% (0.5 credits) for each full 30 minutes of participation.** The demand for timeslots may exceed the supply in a given term. Thus, students are not guaranteed that there will be enough studies available to them to meet their credit requirements. Students should seek studies early in the term and should frequently check for open timeslots. Students can create an account and participate in Departmentally approved research studies at <http://ucalgary.sona-systems.com>. The last day to participate in studies and to assign or reassign earned credits to courses is **Dec 8, 2017**.

Evacuation Assembly Point

In case of an emergency evacuation during class, students must gather at the designated assembly point nearest to the classroom. The list of assembly points is found at

<http://www.ucalgary.ca/emergencyplan/assemblypoints>

Please check this website and note the nearest assembly point for this course.

Student Organizations

Psychology students may wish to join the Psychology Undergraduate Students' Association (PSYCHS). They are located in Administration 130 and may be contacted at 403-220-5567.

Student Union VP Academic: Phone: 403-220-3911 suvpaca@ucalgary.ca

Student Union Faculty Rep.: arts1@su.ucalgary.ca

Student Ombudsman's Office

The Office of the Student Ombudsmen provides independent, impartial and confidential support for students who require assistance and advice in addressing issues and concerns related to their academic careers. The office can be reached at 403-220-6420 or ombuds@ucalgary.ca (<http://www.ucalgary.ca/provost/students/ombuds>)

Safewalk

The safewalk program provides volunteers to walk students safely to their destination anywhere on campus. This service is free and available 24 hrs/day, 365 days a year.

Call 403-220-5333.

Important Dates

The last day to drop this course with no “W” notation and **still receive a tuition fee refund** is **September 22, 2017**. Last day for registration/change of registration is **September 25, 2017**. The last day to withdraw from this course is **December 8, 2017**.