

**Psychology 591 Advanced Topics in Cognitive Psychology-Embodied Cognition Fall 2016**

<b>Instructor:</b>	Dr. Michele Wellsby	<b>Lecture Location:</b>	ST 027A
<b>Phone:</b>	403-220-5658	<b>Lecture Days/Time:</b>	T/R 11AM-12:15PM
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<b>Office Hours:</b>	Tuesdays 1-2PM, or by appointment		

**Course Description**

This course will provide an overview of Embodied Cognition. Embodied Cognition is a term given to theories and research that investigate how our sensorimotor experiences with our bodies and the environment influence our cognitive processing. We'll discuss different theories and examine a range of studies examining embodied effects in cognitive processing.

**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](http://psyc.ucalgary.ca/undergraduate/program-learning-outcomes)), and the expected level of achievement.

<b>Course Learning Outcomes</b>	<b>PLO(s)</b>	<b>Level(s)</b>
• Understand the components of various theories of Embodied Cognition	1, 2	A, A
• Interpret and evaluate research findings reported in journal articles that describe Embodied Cognition studies	2, 4, 5	A, A, A
• Facilitate and contribute to group discussions on theories and research in Embodied Cognition	2, 4, 5	A, A, A
• Design a future study to examine some aspect of Embodied Cognition and write a research proposal on this study	3, 4, 7	A, A, C
• Deliver an oral presentation of a research proposal on some aspect of Embodied Cognition	4, 7	A, 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**

Psyc 312 – Experimental Design and Quantitative Methods for Psychology  
 Psyc 365 – Cognitive Psychology  
 Admission to the Psychology major or Honours program

## Required Text

The course materials will be comprised of a series of articles that will be linked from the course website.

## Evaluation

**Article Leading (25% total).** In the first month of the course, you will lead the discussion of an article assigned as reading for the class. Your goal is to not simply summarize the article, but to create interest and discussion. You can also integrate people's thought questions with your own ideas and questions. Guide us through key issues and some examples of relevant research, without rushing or cutting off useful discussion (10%). In the second half of the course, you will lead discussion of an article of your choosing related to Embodied Cognition. You need to provide the article to the class at least one week in advance. Again, you are to integrate thought questions, and create interest and discussion (15%).

**Research Proposal Presentation (15%).** You will present the research idea that you have derived for a future study. This could be based on the research you summarized in one of your article leading presentations. Provide a brief overview of the theoretical basis for your proposed study, and outline the details of the study. The goal is for your proposal to foster discussion that is helpful to you as you finalize the proposed study for your Research Proposal Paper. If you are absent for your scheduled presentation date, you will receive 0%.

**Research Proposal Paper (30%).** You will write a 15 page APA-formatted research proposal (references are extra to the 15-page limit) based on a topic related to one of the articles in the course. Your goal is to come up with a series of experiments that you would like to carry out and that would make an important and original contribution to the literature on that topic. The proposal should include the following labeled sections: literature review, proposal, method, analyses, predictions, implications, and references. **Papers should be submitted as a hard copy to Dr. Wellsby by 4 pm on December 15th.** Papers can be submitted via the green assignment box outside of the Psychology Office (A255). Late assignments will be penalized 10% per day, including weekends, to a maximum of 30%. Assignments submitted more than 3 days past their due date will not be accepted, and will be assigned a grade of 0%.

**Thought Questions (20%).** You will post a thought question prior to each class on D2L. Your goal is to post an issue, criticism, or stimulating thought related to that class' readings. Try to keep these to a paragraph. You must post it no later than 5 pm the night before each class (Monday and Wednesday). Be sure to read everyone's thought questions before coming to class.

**Seminar Participation (10%).** You are expected to contribute to discussions during each class. This means coming to class having done the readings and having given yourself a chance to think about and synthesize the readings, so that your contributions can be as insightful as possible.

Assignment	Weight	Due Date
Article Leading 1	10%	various
Article Leading 2	15%	various
Research Proposal Presentation	15%	various
Research Proposal Paper	30%	Thursday December 15
Thought Questions	20%	weekly to November 22
Seminar Participation	10%	weekly

### Department of Psychology Grade Distribution Policy

The distribution of grades in Psychology courses (the percentage of A grades, B grades, etc.) will be similar to the distribution of grades in other courses in the Faculty of Arts. The Department monitors the grade distributions of 200-, 300-, and 400-level courses in the Faculty to ensure that the grade distributions in Psychology courses are comparable. Based on these reviews, students can expect that 1) up to 30% of grades in 200- and 300-level psychology courses will be “A” grades (A+, A, and A-), and 2) up to 40% of grades 400-level psychology courses will be “A” grades.

### 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.

To determine final letter grades, final percentage grades will be rounded up or down to the nearest whole percentage (e.g., 89.5% will be rounded up to 90% = A but 89.4% will be rounded down to 89% = A-).

### Tentative Lecture Schedule

Date	Topic	Readings
T Sep 13	Course Overview <i>Fall term lectures begin.</i>	
R Sep 15	Theories of Embodied Cognition	Barsalou, L. W. (2008) Grounded Cognition. <i>Annual Review of Psychology, 59</i> , 617-645.
T Sep 20	Theories of Embodied Cognition	Special Section: The Embodied Cognition Debate in <i>Canadian Journal of Experimental Psychology (2015)</i>
R Sep 22	The role of Context and Task	Korner, A., et al. (2015). Routes to embodiment. <i>Frontiers in Psychology</i> . Schuil et al. (2013). Sentential context modulates the involvement of the motor cortex in action language processing: an fMRI study. <i>Frontiers in Human Neuroscience</i> .
F Sep 23	<i>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.</i>	
M Sep 26	<i>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.</i>	
T Sep 27	Embodiment and Affect	Kiverstein, J., & Miller, M. (2015). The embodied brain: towards a radical embodied cognitive neuroscience. <i>Frontiers in Human Neuroscience</i> . Davis, J. D. et al. (2015). Facial action and emotional language: ERP evidence that blocking facial feedback selectively impairs sentence comprehension. <i>Journal of Cognitive Neuroscience, 27</i> , 2269-2280.
R Sep 29	Embodiment and Memory	Shebani, Z., & Pulvermuller, F. (2013). Moving the hands and feet specifically impairs working memory for arm- and leg-related action words. <i>Cortex, 49</i> , 222-231. Quak, M., et al. (2014). Effects of

		motor congruence on visual working memory. <i>Attention, Perception, and Psychophysics</i> , 76, 2063-2070.
F Sep 30	Fee payment deadline for Fall Term full and half courses.	
T Oct 4	Embodiment and Abstract Concepts	Dove, G. (2011). On the need for embodied and dis-embodied cognition. <i>Frontiers in Psychology</i> . Santana, E., & De Vega, M. (2011). Metaphors are embodied, and so are their literal counterparts. <i>Frontiers in Psychology</i> .
R Oct 6	Embodiment in Development	Kontra, C., et al. (2012). Embodied learning across the lifespan. <i>Topics in Cognitive Science</i> , 4, 731-739. deNooijer, J. A., et al. (2014). Words in action: Using gestures to improve verb learning in primary school children. <i>Gesture</i> , 14, 46-69.
M Oct 10	Thanksgiving Day, University closed (except Taylor Family Digital Library, Law, Medical, Gallagher and Business Libraries). No lectures.	
T Oct 11	Social Embodiment	Lakens, D. (2014). Grounding social embodiment. <i>Social Cognition</i> , 32, 168-183. Forest, A. L. et al. (2015). Turbulent times, rocky relationships: Relational consequences of experiencing physical instability. <i>Psychological Science</i> , 26, 1261-1271.
R Oct 13	Embodiment in Action and Perception	Yee, E., et al. (2013). Manual experience shapes object representations. <i>Psychological Science</i> , 24, 909-919. Cardona, J. F., et al. (2014). How embodied is action language? Neurological evidence from motor diseases. <i>Cognition</i> , 131, 311-322.
T Oct 18	Student's Choice	Student's Choice
R Oct 20	Student's Choice	Student's Choice
T Oct 25	Student's Choice	Student's Choice
R Oct 27	Student's Choice	Student's Choice
T Nov 1	Student's Choice	Student's Choice

R Nov 3	Student's Choice	Student's Choice
T Nov 8	Student's Choice	Student's Choice
R Nov 10-13	<i>Reading Days. No lectures.</i>	
F Nov 11	<i>Remembrance Day (Observed). University Closed (except Taylor Family Digital Library, Law, Medical, Gallagher and Business Libraries). No lectures.</i>	
T Nov 15	Student's Choice	Student's Choice
R Nov 17	Student's Choice	Student's Choice
T Nov 22	Student's Choice	Student's Choice
R Nov 24	Research Proposal Presentations	
T Nov 29	Research Proposal Presentations	
R Dec 1	Research Proposal Presentations	
T Dec 6	Research Proposal Presentations	
R Dec 8	Research Proposal Presentations	
F Dec 9	<i>Fall Term Lectures End. Last day to withdraw with permission from Fall Term half courses.</i>	

### **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 Accommodation**

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit [www.ucalgary.ca/access/](http://www.ucalgary.ca/access/).

Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor.

The full policy on Student Accommodations is available

at [http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy\\_0.pdf](http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy_0.pdf).

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 14 days after the start of this course.

### **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](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](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.

### **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 9, 2016**.

### **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](mailto:suvpaca@ucalgary.ca)

**Student Union Faculty Rep.:** [arts1@su.ucalgary.ca](mailto: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](mailto: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 23, 2016**. Last day for registration/change of registration is **September 26, 2016**. The last day to withdraw from this course is **December 9, 2016**.