



UNIVERSITY OF
CALGARY

University of Calgary

Department of Psychology

Psychology 455 – Sensory, Perceptual, and Cognitive Aspects of Aging

Winter 2011 – Course Outline

Instructor:	Dr. Gregory Wells	Lecture Location:	
Phone:	(403) 314-2480	Lecture Days/Time:	TR 9:00 – 10:20
Email:	greg.wells@rdc.ab.ca	Office Hours:	T 1:00-2:00; W 11:00-12:00; or by appointment
Office:	1225		

Course Description and Goals

This course is a broad overview of the field of cognitive aging. In exploring the effects of aging on cognitive function, topics will include: Relations between Age and Cognitive Functioning; Within Person and Across-time Comparisons; Approaches to Investigating Cognitive Aging; Normal and Pathological Cognitive Aging; and Practical Consequences and Potential Interventions. Throughout, there will be an emphasis on current original research and its everyday relevance.

Prerequisites

PSYC 312 – Experimental Design and Quantitative Methods for Psychology

PSYC 353 – Psychology of Aging

Required Text

Salthouse, T. A. (2010). Major Issues in Cognitive Aging. New York: Oxford University Press

Additional required and recommended readings for the course are listed below. All required readings are available via RDC electronic article databases. Supplemental/Recommended readings will be available on reserve at the RDC library.

Note: Course materials and grades will be available on the course Blackboard site.

Course Objectives:

This course addresses the following core competencies:

- Critical and creative thinking
- Analysis of problems
- Effective written communication
- Gathering and organizing information
- Abstract reasoning
- Insight and intuition in generating knowledge
- Interpretive and assessment skills

With the following course objectives:

- Identify and examine key issues in cognitive aging.
- Critically evaluate published research.
- Prepare and deliver a written report as well as an oral presentation summarizing a published research paper.
- Prepare and submit a research report, reviewing relevant literature, identifying a research question and proposing an original study.

Important Information: The research paper will be written in American Psychological Association (APA) format.

Evaluation

	<u>VALUE</u>	<u>DATE</u>
Midterm 1	10%	Feb. 01
Proposal Outline	5%	Feb. 15
Midterm 2	10%	Mar. 03
Term Paper (Research Proposal)	30%	Mar. 31
Final Exam	10%	Apr. 07
Presentation/article summary	25%	see below
Class Participation	10%	see below

CONTENT AND FORMAT OF EXAMS/ASSIGNMENTS

There will be two midterm examinations in addition to a non-cumulative final examination. Tests will consist of multiple choice and short-answer items and will cover the assigned textbook chapters/ readings, and accompanying lecture material.

Additionally, students will prepare and submit a written summary of an assigned research article, and present this summary to the class in a 15 minute oral presentation. Presentations will take place throughout the course, beginning in the third week of classes. As part of this process, all students not presenting will be required to prepare and submit pertinent questions. Presentation dates will coincide with dates for assigned readings (see below). Your date will be scheduled in class. Detailed discussion of the requirements for these presentations as well as the assignment of students to presentation dates will take place on the first day of class.

Students will also submit a term paper (research proposal) focusing on a particular issue or domain of cognitive aging. These will be approximately 3500 words (10-12 pages, double spaced) in length and will include a comprehensive literature review, a clearly outlined research question, and a detailed description of proposed method. A detailed discussion of the requirements for these assignments will take place during the second week of classes. Note that a penalty of 10% per day will be deducted for late assignments unless proof is provided of a serious reason for lateness. *An alternative assignment based on Community Service Learning (volunteering) is also available to interested students – details to be discussed during the second week of classes.

Class Participation will also be evaluated. Detailed discussion of expectations for class participation will take place on the first day of class.

IMPORTANT INFORMATION:

Attendance is expected at all lectures. Examinations will cover the assigned readings as well as material covered in lectures. Examinations will consist of multiple choice and short answer questions. Examination grades will be posted on the course Blackboard site within two weeks of the scheduled exam. Students who miss an examination because of verified illness, bereavement, or other emergency must contact the instructor within one week of the exam and provide documentation (e.g. a note from your physician) before a make-up exam can be arranged.

Any recordings of lectures must be approved by the instructor.

It is the student’s responsibility to be familiar with the information contained in the Course Outline and to clarify any areas of concern with the instructor.

Students should refer to the Student Dispute, Appeal and Misconduct Processes Policy and Standard Practice should questions or concerns about the Course Outline not be resolved with the instructor.

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%

To determine final letter grades, final percentages will be rounded up or down to the nearest whole percentage (i.e., 89.5% will be rounded up to 90%; 89.4% will be rounded down to 89%, etc.).

Your Winter 2011 Psychological Semester at a Glance

January 6	Introductions & Course Outline
January 11, 13	Relations between Age and Cognitive Function <ul style="list-style-type: none"> • Salthouse, Chapter 1
January 20	Student Presentations begin (see schedule below)
January 18, 20	Relations between Age and Cognitive Function <ul style="list-style-type: none"> • Salthouse, Chapter 1, 2 • Readings 1- 3
January 25, 27	Within-Person and Across-Time Comparisons <ul style="list-style-type: none"> • Salthouse, Chapter 2 • Readings 4 - 6
February 1	MIDTERM 1 EXAM (Chapters 1,2; readings 1-6)
February 3	Approaches to Investigating Cognitive Aging <ul style="list-style-type: none"> • Salthouse, Chapter 3 • Readings 7- 9
February 8, 10	Approaches to Investigating Cognitive Aging

	<ul style="list-style-type: none"> • Salthouse, Chapter 3 • Readings 10-12
February 15-17	Mediators/Moderators of Cognitive Aging <ul style="list-style-type: none"> • Salthouse, Chapter 4 • Readings 13-16
February 23, 25	FAMILY DAY/MIDTERM BREAK – NO CLASSES
March 1	Mediators/Moderators of Cognitive Aging <ul style="list-style-type: none"> • Salthouse, Chapter 4
March 3	MIDTERM 2 EXAM (Chapters 3,4; readings 7-16)
March 8, 10	Normal and Pathological Cognitive Aging <ul style="list-style-type: none"> • Salthouse, Chapter 5 • Readings 17-19
March 15, 17	Normal and Pathological Cognitive Aging <ul style="list-style-type: none"> • Salthouse, Chapter 5 • Readings 20-22
March 22, 24	Practical Consequences and Potential Interventions <ul style="list-style-type: none"> • Salthouse, Chapter 6 • Readings 23-25
March 29, 31	Practical Consequences and Potential Interventions <ul style="list-style-type: none"> • Salthouse, Chapter 6 • Readings 26-28
April 5	Review
April 7	IN-CLASS FINAL EXAM (Chapters 5,6; readings 17-28)

THURSDAY, JAN 20 -	Readings 1-3
THURSDAY, JAN 27 -	Readings 4-6
THURSDAY, FEB 03 -	Readings 7-9
THURSDAY, FEB 10 -	Readings 10-12
THURSDAY, FEB 17 -	Readings 13-16
THURSDAY, MAR 10 -	Readings 17-19
THURSDAY, MAR 17 -	Readings 20-22
THURSDAY, MAR 24 -	Readings 23-25
THURSDAY, MAR 31 -	Readings 26-28

Required Reading:

1. Bowles, R. P., & Salthouse, T. A. (2008). Vocabulary test format and differential relations to age. *Psychology and Aging, 23*, 366-376.

2. Gerstorf, D., Herlitz, A., & Smith, J. (2006). Stability of sex differences in cognition in advanced old age: The role of education and attrition. *Journals of Gerontology: Series B: Psychological Sciences and Social Sciences, 61*, P245-P249.

3. Proust-Lima, C., Amieva, H., Letenneur, L., Orgogozo, J. M., Jacqmin-Gadda, H., & Dartigues, J. F. (2008). Gender and education impact on aging : A general cognitive factor approach. *Psychology and Aging, 23*, 608-620.

- 4. Rabbit, P.,** Chetwynd, A., & McInnes, L. (2003). Do clever brains age more slowly? Further exploration of a nun result. *British Journal of Psychology, 94*, 63-71.
- 5. Lynn, R.,** & Harvey, J. (2008). The decline of the world's IQ. *Intelligence, 36*, 112-120.
- 6. Magnusson, K. R.,** Scruggs, B., Aniya, J., Wright, K. C., Ontl, T., Xing, Y., & Bai, L. (2003). Age-related deficits in mice performing working memory tasks in a water maze. *Behavioral Neuroscience, 117*, 485-495.
- 7. Milgram, N. W.,** Head, E., Zicker, S. C., Ikeda-Douglas, C. J., Murphey, H., Muggenburg, B., Siwak, C., Tapp, D., & Cotman, C. W. (2005). Learning ability in aged beagle dogs is preserved by behavioural enrichment and dietary fortification: A two-year longitudinal study. *Neurobiology of Aging, 26*, 77-90.
- 8. Tapp, P. D.,** Siwak, C. T., Estrada, J., Head, E., Muggenburg, B. A., Cotman, C. W., & Milgram, N. W. (2003). Size and reversal learning in the beagle dog as a measure of executive function and inhibitory control in aging. *Learning and Memory, 10*, 64-73.
- 9. Tucker-Drob, E. M.,** Johnson, K. E., & Jones, R. N. (2009). The cognitive reserve hypothesis: A longitudinal examination of age-associated declines in reasoning and processing speed. *Developmental Psychology, 45*, 431-446.
- 10. Lindenberger, U.,** & Ghisletta, P. (2009). Cognitive and sensory declines in old age: Gauging the evidence for a common cause. *Psychology and Aging, 24*, 1-16.
- 11. Bahrlick, H. P.,** Hall, L. K., & Da Costa, L. A. (2008). Fifty years of memory of college grades: Accuracy and distortions. *Emotion, 8*, 13-22.
- 12. Hancock, H. E.,** Fisk, A. D., & Rogers, W. A. (2005). Comprehending product warning information: Age-related effects and the roles of memory, inferencing, and knowledge. *Human Factors, 47*, 219-34.
- 13. Siedlecki, K. L.,** Salthouse, T. A., & Berish, D. E. (2005). Is there anything special about the aging of source memory? *Psychology and Aging, 20*, 19-32.
- 14. Kensinger, E. A.** (2008). Age differences in memory for arousing and non-arousing emotional words. *Journals of Gerontology: Series B: Psychological Sciences and Social Sciences, 63B*, P13-P18.
- 15. Andreoletti, C.,** Veratti, B. W., & Lachman, M. E. (2006). Age differences in the relationship between anxiety and recall. *Aging and Mental Health, 10*, 265-271.
- 16. Valentijn, S. A. M.,** van Boxtel, M. P. J., van Hooren, S. A. H., Bosma, H., Beckers, H. J. M., Ponds, R. W. H. M., & Jolles, J. (2005). Change in sensory functioning predicts change in cognitive functioning: Results from a 6-year follow-up in the Maastricht Aging Study. *Journal of American Geriatrics Society, 53*, 374-380.

17. Salthouse, T. A. (2006). Mental exercise and mental aging: Evaluating the validity of the use it or lose it hypothesis. *Perspectives on Psychological Science, 1*, 68-87.

17b. Schooler, C. (2007). Use it – and keep it, longer, probably: A reply to Salthouse (2006). *Perspectives on Psychological Science, 2*, 24-29.

17c. Salthouse, T. A. (2007). Reply to Schooler: Consistent is not conclusive. *Perspectives on Psychological Science, 2*, 30-32.

18. Brickman, A. M., Zimmerman, M. E., Paul, R. H., Grieve, S. M., Tate, D. F., Cohen, R. A., Williams, L. M., Clark, C. R., & Gordon, E. (2006). Regional white matter and neuropsychological functioning across the adult lifespan. *Biological Psychiatry, 60*, 444-453.

19. Larsen, E. B., Wang, L., Bowen, J. D., McCormick, W. C., Teri, L., Crane, P., & Kukull, W. (2006). Exercise is associated with reduced risk for incident dementia among persons 65 years of age and older. *Annals of Internal Medicine, 144*, 73-81.

20. Wilson, R. S., Scherr, P. A., Schneider, J. A., Tang, Y., & Bennett, D. A. (2007). Relation of cognitive activity to risk of developing Alzheimer Disease. *Neurology, 69*, 1911-1920.

21. Bennett, D. A., Schneider, J. A., Tang, Y., Arnold, S. E., Wilson, R. S. (2006). The effect of social networks on the relation between Alzheimer's disease pathology and level of cognitive function in old people: A longitudinal cohort study. *Lancet Neurology, 5*, 406-412.

22. DeKosky, S., Williamson, J. D., Fitzpatrick, A.I., Kronmal, R. A., Ives, D. G., Saxton, J. A., Lopez, O. L., Burke, G., Carlson, M. C., Fried, L. P., Kuller, L. H., Robbins, J. A., Tracy, R. P., Woolard, N. F., Dunn, L., Snitz, B. E., Nahin, R. L., & Furberg, C. D. (2008). Ginkgo Bolboa for prevention of dementia: A randomized controlled trial. *Journal of the American Medical Association, 300*, 2253-2262.

23. Fritsch, T., McClendon, M. J., Smyth, K. A., Lerner, A. J., Friedland, R. P., & Larsen, J. D. (2007). Cognitive functioning in healthy aging: The role of reserve and lifestyle factors early in life. *The Gerontologist, 47*, 307-322.

24. Brehmer, Y., Li, S-C., von Oertzen, T., & Lindenberger, U. (2007). Memory plasticity across the life span: Uncovering children's latent potential. *Developmental Psychology, 43*, 465-478.

25. Cassilhas, R. C., Vuiana, V. A. R., Grassmann, V., Santos, R. T., Santos, R. F., Tufik, S., & Mello, M. T. (2007). The impact of resistance exercise on the cognitive function of the elderly. *Medicine & Science in Sports & Exercise, 39*, 1401-1407.

26. Dahlin, E., Nyberg, L., Backman, L., Neely, A. S. (2008). Plasticity of executive functioning in young and older adults: Immediate training gains, transfer, and long-term maintenance. *Psychology and Aging, 23*, 720-730.

27. Carlson, M. C., Saczynski, J. S., Rebok, G. W., Seeman, T., Glass, T. A., McGill, S., Tielsch, J., Frick, K. D., Hill, J., & Fried, L. P. (2008). Exploring the effects of an "everyday" activity program on executive function and memory in older adults: EXPERIENCE CORPS; *Gerontologist*, 2008, 793-801.

28. Willis, S. L., Tennstedt, S. L., Marsiske, M., Ball, K., Elias, J. Koepke, K. M., Morris, J. N., Rebok, G. W., Unverzagt, F. W., Stoddard, A. M., & Wright, E. (2006). Long-term effects of cognitive training on everyday functional outcomes in older adults. *Journal of the American Medical Association*, 296, 2805-2814.

SUPPLEMENTAL READING: (not required) Lecture material will also be drawn from the following sources, available on reserve in the library:

Birren, J. E., & Schaie, K. W. (2006, 2001). *The Handbook of the Psychology of Aging*. San Diego: Academic Press.

Cavanaugh, J. C. and Blanchard-Field, F. (2011). *Adult Development and Aging*. (Sixth edition). Wadsworth Group, Thomson Learning, Inc.

Craik, F. I. M, & Salthouse, T. A. (Eds.) (2008, 2000). *The Handbook of Aging and Cognition*. Mahwah, N. J.: Lawrence Erlbaum Associates.

Park, D. C., & Schwarz, N. (Eds.) (2000). *Cognitive Aging: A Primer*. Philadelphia, PA: Taylor & Francis.

You may also find these materials to be a useful starting point for the research proposal paper.

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 unfavorable 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.

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
Student Union Faculty Rep.: Phone: 220-3913 socialsciirep@su.ucalgary.ca

Academic Resources on Campus - Visit www.rdc.ab.ca for information on the following services.

Learning Support (Cenovus Learning Common)

- Writing Skills Centre (403-342-3264)
- Math Skills Centre
- Learning Strategies (note-taking, studying and exam-writing strategies; 403-343-4099)
- Peer Tutoring (one-on-one tutoring by students)
- Peer-Assisted Study Sessions (PASS) (student-led study groups)
- Prescreening and referral for learning disabilities

Disability Services (Library Information Common; 403-357-3629)

- Coordination of services (tutoring, alternate format text, note-taking etc.)
- Academic accommodations, including exam accommodations
- Accessibility issues
- Funding information and referral

Counselling and Career Centre (Room 1402; 403-343-4064)

- Personal counselling
- Career counselling
- Employment and Career Services (resumes, job postings, etc.)

Important Dates at RDC:

Winter 2011

January 6	First day of classes for Winter term / midterm feedback date for full year courses
February 21	Family Day. College closed

February 22-25	Mid-term break
March 1	Emergency Response Day
March 4	Mid-term feedback date for Winter term courses
March 9	Perspectives: Canada in the World student session with speaker
March 14	Continuing student registration begins
April 11	Last day of classes for Full year and Winter term courses
April 15-21	Final exam period
April 22	Good Friday College closed

Important Dates at U of C

The last day to drop this course with no "W" notation and **still receive a tuition fee refund** is **Sep 24th, 2010**. Last day for registration/change of registration is Sep 27th, 2010. The last day to withdraw from this course is **Dec 10th, 2010**.

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES 
STUDENT RECOGNITION OF PLAGIARISM*

Definition

Plagiarism is the act of submitting work in which some or all of the phrasing, ideas, or line of reasoning are alleged to be the submitter's own but in fact were created by someone else. The most common forms of plagiarism consist of these practices:

- copying two or more consecutive words of someone else's writing without proper acknowledgement
- paraphrasing someone else's writing without proper acknowledgment
- using the ideas or line of reasoning original to someone else without proper acknowledgment
- submitting work in which someone else has made substantial editing improvements to the content and phrasing of the work of the submitter
- submitting work in one course that the submitter has already submitted in another course, without the approval of both courses' instructors
- submitting some work that in whole or in part is identical to that submitted by another student

Note: in the above, "submitted work" refers to any oral or written work that a student presents to his/her instructor as part of the course requirements. "Proper acknowledgment" refers to the citation and bibliographical standards (such as MLA, APA, Chicago, etc.) used in the course in which the work is submitted.

Standards of Proof

Plagiarism can be proven when the instructor has both the material presented by the student and the original source from which this material was taken.

Also, plagiarism can be judged to have occurred

- if the student is incapable of explaining the terminology or ideas in the submitted material, *and*
- if such terminology or ideas can not be shown to originate in the works contained in the Bibliography or Works Cited page accompanying the submitted material (or, for oral presentations, if the student cannot produce the notes or texts used to prepare his/her material).

In the latter instance, the instructor's Chairperson will judge whether or not there exists sufficiently strong evidence to conclude that plagiarism has occurred. (Of course, any such decision may be formally appealed by the student.)

Consequences

At the instructor's discretion (and consistent with department standards), a student charged with plagiarism can expect to

- be given a reduced mark or no mark (i.e., a grade of 0 or F) for the plagiarized assignment, *or*
- be expelled from the course and assigned a Final Grade of F.

In either case, the instance of academic dishonesty will be recorded on the student's academic file, and further occurrences of any dishonesty may lead to expulsion from the College.

*This document has been adapted from the Red Deer College calendar.