UNIVERSITY OF VICTORIA
DEPARTMENT OF PSYCHOLOGY

PSYC 435e/565 (A01)
Cognitive Development in Adulthood and Aging

Fall 2017

Time: Mondays 2:30-5:20
Room: COR A228
Instructor: Stuart MacDonald, PhD
Office Hours: Flexible (e.g., prior/following class); by appointment
Office: Cornett A261
Phone: (250) 472-5297
E-mail: smacd@uvic.ca

COURSE DESCRIPTION

This combined undergraduate/graduate seminar is designed to review important topics and research on the progression of age-related cognitive change. Our discussions will focus on cognitive functioning for three periods: normative cognitive aging, the transition from normative to pathological cognitive aging, and pathological cognitive aging. Although a useful heuristic, the boundaries between such transitions are blurred and the associated mechanisms of change are not well understood. To better understand the transitions, we will explore key topics in the cognitive aging literature including theories of cognitive decline, patterns and predictors (e.g., genetics, lifestyle) of cognitive change, mild cognitive impairment and dementia, confounds of aging research, and even methodological approaches for analyzing lifespan data. I am excited about the opportunity to dialogue with each of you on these important topics!

COURSE PREREQUISITES

Prerequisites for PSYC 435e include PSYC 300A/B, PSYC 339, and PSYC 335 (or PSYC 336).

There are no official prerequisites for PSYC 565. However, class participation and successful completion of the course assignments presupposes some knowledge of cognitive psychology as well as statistics and methods of lifespan development. If you have no previous experience in these areas, please contact me to discuss your background. I would be happy to provide suggestions for supplementary reading material that will prepare you for concepts and topics that we will discuss in class.

COURSE FORMAT AND LEARNING GOALS

The class is structured as an advanced honours/graduate seminar; the format presupposes that you have read the relevant material prior to attending class. This seminar on cognitive development in adulthood and aging is specifically designed to promote learning through dialogue and sharing of ideas. During each meeting, we will hold in-depth discussions of issues (e.g., definitions of constructs, methodological approaches and problems, theoretical strengths and weaknesses) with the goal of forming conclusions about a given week’s topic, rather than on the presentation of information to be recalled at a later date. Given the emphasis on interactive learning, the success of the course is predicated upon our lively exchanges. I invite each of you to participate in group discussions to your fullest extent -- your perspective is important to the collective learning experience!
As detailed in the evaluation section of the syllabus, opportunities will be provided to further enhance both your written and spoken skills. Upon completion of the course, my goal is for you to achieve the following learning outcomes:

1. to better understand some common late-life transitions of cognitive functioning and to be able to communicate this knowledge to professionals and members of the community

2. to be able to apply “critical thought” (i.e., evaluate an issue from different perspectives, identify limitations or confounding factors) to topics related to cognitive development in adulthood and aging, and to work as a group to evaluate ideas

3. to enhance your communication skills (e.g., sharing ideas with others, critical thinking, presentation skills) and confidence when speaking among your peers

4. to further develop your scientific writing (e.g., synthesizing ideas from numerous articles), and in particular your ability to (a) write a critical review of a key topic in cognitive aging and (b) form your own conclusions about select topics in the literature

**ACADEMIC EXPECTATIONS**

As noted, your contributions to class discussions are required to achieve the learning outcomes. Thus, I expect you to attend class. Should circumstances prevent your attendance, please inform me (in advance if possible). If you are unable to submit a written assignment on the specified date due to illness, accident, or family affliction, you should inform me as soon as possible, preferably in advance. Under normal circumstances, I will arrange for a brief extension of the deadline. If you are unable to complete the required course work within the term, you should apply to the Associate Dean, Undergraduate Studies (PSYC 435e) or the Dean of Graduate Studies (PSYC 565) for permission to receive a grade of INC (Incomplete). I would also appreciate it if you would inform me in advance (if possible) of your situation. If an INC is granted, I will arrange an extension of the assignment deadline consistent with the deferral agreement.

You are expected to abide by the University’s policy on plagiarism and cheating (see last 2 pages).

**COURSE REGISTRATION**

You are personally responsible for checking your registration status before the end of the course-add period (Friday, September 22, 2017). Please verify and confirm your registration status with me as, according to University policy, I am unable to facilitate a course addition after this date even if you have been attending class. Also note that Tuesday, October 31, 2017 is the last day for officially withdrawing from PSYC 435e/565 without academic penalty. University policy states that failing to attend lectures does not constitute official withdrawal.

**EVALUATION**

Evaluation of your progress toward the course objectives will be based upon several graded requirements including your: (a) class participation, (b) weekly email questions, (c) performance as seminar facilitator (435e) or leader (565), (d) review paper outline, and (e) written review paper. The expectations and rationale for each are briefly outlined below.
Class Participation and Weekly Email Questions

Reading and reflecting upon assigned articles prior to class is essential; I ask that each of you come to class prepared for a critical discussion of each week’s topic. Observations from the readings, questions about the readings, and related personal observations are all relevant. To facilitate weekly group discussions, I also ask that each of you circulate several (2-3) interesting questions by email to each class member 48 hours prior to class (I will compile a list of email addresses and circulate them shortly after the first class). Rather than rote repetition of the content that you read, the questions should instead address theoretical, methodological, or applied issues. I am excited about learning each of your personal observations, comments, and questions on the weekly readings. In evaluating your class participation, I will take into account attendance, the level of participation (e.g., poses and answers questions, builds on others’ views, shows creativity), and regular circulation of email questions prior to class. Please note that submitting your questions 2 days in advance is not intended as a burden, but rather a courtesy to facilitate seminar leader planning (see below) for that week.

Seminar Facilitator/Leader

You will be asked to serve in the role of seminar facilitator (435e) or leader (565) for one of the weekly sessions. During the first class, a sign-up list will be circulated for you to choose your topic and presentation date. No more than two individuals may sign up for a specific weekly topic.

As seminar leader (565), you will be expected to:

1. lead the entire 3-hour seminar for the weekly topic/theme that you have selected. Your oral presentation may focus on: (a) identifying key issues related to the topic of the class, (b) summarizing some of the major conclusions that have been drawn to date in this area of investigation, and (c) proposing questions/controversies that remain to be addressed both in research and as a focus for our discussion. It is expected that you will consult literature beyond the assigned readings in developing this presentation. Please note that the oral presentation need not be continuous (e.g., feel free to integrate summary and discussion, as well as the assistance of your PSYC 435e seminar facilitator (see section below)).

2. use questions circulated via email as well as your own critical insights to facilitate group discussion of the issues identified in your oral presentation.

3. to employ strategies that ensure lively group discussion and debate. This may involve application of a number of strategies such as asking the group to respond to one or more of the submitted questions, asking the group to generate a list of items, splitting the group into sub-groups to argue opposing theoretical positions, or dividing the group into several small groups with instructions to generate positions or questions and report back.

4. to guide and moderate the discussion as required. The goal is to provide guidance to the group so that major points are covered and the discussion does not become too tangential.

As seminar facilitator (435e), you will be expected to:

1. lead an oral presentation and discussion of approximately 45 minutes that overviews some aspect (e.g., summarizing key findings or theories, identifying controversies) of the weekly topic/theme that you have selected. You should plan to coordinate closely with the assigned seminar leader (565) for your week. Please note that your presentation may take many forms (e.g., a conference-style presentation, a facilitated debate or small group discussion, etc.) – feel free to present the information in any way that will effectively support learning.

2. together with the seminar leader, contribute to facilitating many of the same learning outcomes listed above (for the seminar leader).
This assignment is intended to promote your spoken communication skills. Seminar facilitator/leader evaluation will be based on the ability to synthesize and present key information as well as your ability to effectively guide group discussion.

Outline for Review Paper
The first written assignment is a brief (2-3 page) outline of the assigned review paper (see below). The purpose of this assignment is twofold: (a) to have you choose one of the topics from the course on which to base your final review paper, and (b) to facilitate early progress on writing the review paper to reduce demands on your time during the busy end-of-term period. This assignment is intended to emulate the planning and reflection required to produce effective scientific writing. Performance will be evaluated on (a) your ability to identify key issues and controversies for the topic, (b) the relevance of scientific and review articles that you intend to cite (choose 5-6 citations and reference using APA format), and (c) your own novel identification of strengths/weaknesses of the literature in this area.

The outline for the review paper is due on MONDAY, OCTOBER 23.

Review Paper
For the primary writing assignment, I am asking you to write an analytic review of a theory or body of research from the list of course syllabus topics. The review of your chosen topic should include an organized overview of theoretical issues and controversies, a synthesis of empirical findings, and a synopsis for future research in the area. Your focus will be to synthesize and critique a body of research, as opposed to merely summarizing what has been said by others. By way of example, the format of the review can be structured according to the style adopted in various publications (e.g., Psychological Bulletin, Developmental Review) and edited volumes (e.g., The Handbook of Cognitive Aging). Your review will require a detailed search of the literature on your chosen topic. The review must be typed with citations referenced using APA style. The length of the review should be around 20 double-spaced pages, excluding references, figures, and tables.

I am aware that some individuals would prefer to write a final exam because the amount of time spent is in some sense finite relative to the time that a review paper requires. Please do not attempt to provide the most comprehensive review imaginable! Instead, evaluation will be based on your: (a) ability to review and synthesize the most pertinent information, (b) capacity for critical thinking and making novel arguments, and (c) writing style.

Your review paper is due on MONDAY, DECEMBER 4. You will be awarded additional credit if you hand in your review by this date.

Grading
I have purposely employed several forms of evaluation in recognition that each of you have individual learning styles. Your grade for the course will be based on both written and spoken contributions, providing you the best opportunity to demonstrate your many abilities. Further, to minimize anxiety associated with individual projects that count toward a large percentage of your grade, I have specifically chosen to parse evaluation into smaller components. Your workload should not increase, but rather be more evenly dispersed across the term.

1. Class discussion = 15%
2. Weekly email questions = 5%
3. Seminar facilitator/leader = 30%
4. Outline for review paper = 10%
5. Review paper = 40%
Graded course requirements will be weighted and aggregated to yield a percentage score. The final letter grade in the course will be based on total percent score rounded up at values of .5 or greater (e.g., 89.5 will be rounded up to 90, but 89.4 will not). Final grades will be assigned according to the following scale: 90-100% = A+; 85-89 = A; 80-84 = A-; 77-79 = B+; 73-76 = B; 70-72 = B-; 65-69 = C+; 60-64 = C; 50-59 = D; 0-49 = F.

### WEEKLY TOPICS AND ASSIGNED READINGS

There is no required textbook for this class. In lieu, I have carefully selected seminal review and original research articles that outline a given week’s theme (e.g., background concepts, existing controversies) and that set the stage for group discussions and seminar presentations. Where possible, I have selected articles with opposing viewpoints. For select topics, I have also included representative articles from my personal research collaborations -- I expect you to critique these as you would any others.

**Overview of Dates and Topics**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>11 September</td>
<td>Introduction to the Course: Some Background on Cognitive Aging (class leader assignments)</td>
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<tr>
<td>18 September</td>
<td>Theories of Cognitive Aging</td>
</tr>
<tr>
<td>25 September</td>
<td>Preclinical Dementia and Cognitive Decline</td>
</tr>
<tr>
<td>02 October</td>
<td>Does Biological or Chronological Age Exert a Greater Influence on Cognitive Decline?</td>
</tr>
<tr>
<td>09 October</td>
<td>No Class (Thanksgiving Day)</td>
</tr>
<tr>
<td>16 October</td>
<td>Gait and Cognition</td>
</tr>
<tr>
<td>23 October</td>
<td>What Impact Does Cognitive or Physical Training Have on Late-Life Cognitive Performance? (review paper outline due today)</td>
</tr>
<tr>
<td>30 October</td>
<td>Brain Plasticity and Cognitive Reserve</td>
</tr>
<tr>
<td>06 November</td>
<td>What Can Intraindividual Variability Tell Us About Age-Related Cognitive Decline?</td>
</tr>
<tr>
<td>13 November</td>
<td>No Class (Reading Break)</td>
</tr>
<tr>
<td>20 November</td>
<td>Stress and Cognition</td>
</tr>
<tr>
<td>27 November</td>
<td>Terminal Cognitive Decline</td>
</tr>
<tr>
<td>04 December</td>
<td>Final Paper Due</td>
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</tbody>
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**Readings**

The required readings will consist of selected chapters and articles. Many of these articles are available online through the UVic library website or PsycINFO.

**Reading Assignments**

The required readings for each class are identified by an asterisk (*). Additional readings relevant to the topic are also listed. These are included as potential entry point references to assist you in preparing for your role as seminar facilitator/leader, or as resources for the written assignments.
Weekly Themes and Reading List

SEPTEMBER 11
Introduction to the Course
Course focus, syllabus and requirements

Statistical Methods of Lifespan Development: A Primer on the Analysis of Change

Class discussion on September 11th will focus on providing you with necessary background knowledge on lifespan methods that will be relevant for interpreting the results section of articles in the coming weeks. For those interested, I will cover these methods in more detail in PSYC 533, 536, and 564.

SEPTEMBER 18
Theories of Cognitive Aging


Processing Resource Accounts of Cognitive Aging


Processing Speed Underlies Cognitive Decline: Fact or Artifact?


Problems with Mediational Theories: Alternative Thoughts About How We Should Study Aging


Beyond Processing Resources: New Theories of Cognitive Aging


SEPTEMBER 25

Preclinical Dementia and Cognitive Decline

Mild Cognitive Impairment: Diagnostic Precursor to AD or Diverse Entity?


Is There Any Benefit to Studying Cognitive Decline Post-Dementia Onset?

Predictors of Dementia Risk

OCTOBER 2
Does Biological or Chronological Age Exert a Greater Influence on Cognitive Decline?


OCTOBER 9
No Scheduled Class – Thanksgiving Day

OCTOBER 16
Gait as an Indicator of Cognitive Aging


Gait and Dementia Risk


**Please note that your review paper outline is due next week (Monday, October 23).**

OCTOBER 23

What Impact Does Cognitive or Physical Training Have on Late-Life Cognitive Performance?


Individual Differences Research Linking Physical Activity to Age-Related Cognitive Function


**Please note that your review paper outline is due today

OCTOBER 30
Brain Plasticity and Cognitive Reserve


NOVEMBER 6
What Can Intraindividual Variability Tell Us About Age-Related Cognitive Decline?


NOVEMBER 13
No Scheduled Classes -- Reading Break

NOVEMBER 20
Stress and Cognition


**NOVEMBER 27**

**Terminal Cognitive Decline**


Please note that this is our final class (Friday, December 1st is the last day of classes for Fall term).

**DECEMBER 4**

Review paper is due (40%).

**The above schedule, course policies, and assignments are subject to change**
UNIVERSITY OF VICTORIA
Department of Psychology

Important Course Policy Information
Winter 2017

Commitment to Inclusivity and Diversity

The University of Victoria is committed to promoting, providing and protecting a positive and supportive and safe learning and working environment for all its members.

Policy on Academic Integrity including Plagiarism and Cheating

The Department of Psychology fully endorses and intends to enforce rigorously the Senate Policy on Academic integrity (https://web.uvic.ca/calendar2017-09/grad/academic-regulations/academic-integrity.html#), p.39-41 UVic Calendar September 2017). It is of utmost importance that students who do their work honestly be protected from those who do not. Because this policy is in place to ensure that students carry out and benefit from the learning activities assigned in each course, it is expected that students will cooperate in its implementation.

The offences defined by the policy can be summarized briefly as follows:

1. **Plagiarism.** You must make sure that the work you submit is your work and not someone else’s. There are proper procedures for citing the works of others. The student is responsible for being aware of and using these procedures.

2. **Unauthorized Use of an Editor.** The use of an editor is prohibited unless the instructor grants explicit written authorization.

3. **Multiple Submission.** Only under exceptional circumstances may a work submitted to fulfill an academic requirement be used to satisfy another similar requirement. The student is responsible for clarifying this with the instructor(s) involved.

4. **Falsifying Materials Subject to Academic Evaluation.** This includes falsification of data, use of commercially prepared essays, using information from the Internet without proper citation, citing sources from which material is not actually obtained, etc.

5. **Cheating on Assignments, Tests, and Examinations.** You may not copy the work of others in or out of class; you may not give your work to others for the purpose of copying; you may not use unauthorized material or equipment during examinations or tests; and you may not impersonate or allow yourself to be impersonated by another at an examination. The Department of Psychology has a policy of not making old examinations available for study purposes. Therefore, use of old exams without the express written permission of the instructor constitutes cheating by the user, and abetting of cheating by the person who provided the exam.

6. **Being an Accessory to Offences.** This means that helping another student to cheat (for instance, by showing or communicating to them answers to an assignment, or by allowing them to view answers on an exam) is an academic offence.

Instructors are expected to make every effort to prevent cheating and plagiarism. This may include the assignment of seating for examinations, asking students to move during examinations, requests to see student identification cards,
and other measures as appropriate. Instructors also have available to them a variety of tools and procedures to check for Internet and electronic media-based cheating. In instances of suspected or actual plagiarism or cheating, instructors, following prescribed procedures, are authorized to take steps consistent with the degree of the offence. These measures will range from a zero on the test or assignment or a failing grade for the course, probation within a program to temporary or even permanent suspension from the University.

Rights of Appeal are described in the Policy on Academic Integrity in the University calendar (on p. 40 in September 2017).

The definitive source for information on Academic Integrity is the University Calendar (p. 39-41 in September 2017) (https://web.uvic.ca/calendar2017-09/grad/academic-regulations/academic-integrity.html#)

Other useful resources on Plagiarism and Cheating include:

1. The Study Solutions Office: https://www.uvic.ca/services/counselling/success/study/index.php
2. The Ombudsperson’s office: http://www.uvss.uvic.ca/ombudsperson/pubsquides/plagiarism.pdf
3. UVic Library Resources: http://www.uvic.ca/library/research/citation/plagiarism/