

School of Kinesiology
Faculty of Health Sciences
Western University

**KIN 4457A – Ergonomics & Aging
Winter 2018**

Instructor: Alan Salmoni	Office: TH 3159b
Lectures: Tu D.B. Weldon Lib Rm 258 1:30PM-3:30PM	Office Hours: upon request
Th D.B. Weldon Lib Rm 258 1:30PM-2:30PM	Phone: 519-661-3541
	Email: asalmoni@uwo.ca

TAs: TBD

NOTE: All relevant course (see also below) will be posted on OWL.
The course has *4 hours of class time per week*.

Calendar Course Description:

Melding together concepts from cognitive ergonomics and gerontology, the course focuses on how to prolong independent living in older adults by improving function, safety, and quality of life.

Course Description: This course combines important concepts from gerontology and cognitive ergonomics to study how changes can be made to the person, environment, and task to promote safety in older adults. Ultimately, the goal of these ergonomic interventions is to promote successful aging through the prolongation of safe and comfortable independent living and the optimization of quality of life. In addition, a major part of the course is devoted to the practicing of the creative and critical thinking skills germane to a professional working in the area of ergonomics and aging.

Pedagogical Design of the Twice-Weekly Lectures

Although not a strict division of strategies, the twice-weekly lectures are divided into two pedagogical styles/days:

Training Tuesdays = Tuesday classes are designed to provide students with sufficient background, including mental models in aging and ergonomics to be able to gain expertise and problem solve independently

Thinking Thursdays = Thursday classes will begin with a quiz based on assigned literature, followed by questions from the audience about the article, followed by a series of exercises designed to allow students to practice critical, generalized, and creative thinking about issues germane to the field

In both strategies the professor will be the “guide on the side” and not the “sage on the stage”. The goal is to make students independent thinkers and learners.

What students can expect from the professor

I will give you the students 100% effort to do the best job I can do, making this course a rich learning experience both academically and personally.

Course Objectives:

During the class discussions students will:

1. Come prepared to speak up
2. Actively listen to what all other people (i.e., fellow students) in the class say,
3. Think about what has been said so far in the discussion and then,
4. Actively add to the discussion at hand
5. Practice being a professional with minimal direction
6. Practice writing in a concise manner
7. Practice being a reflective learner

At the end of the course students will:

8. Appreciate and understand selected concepts/topics/methodologies germane to the field of aging and ergonomics
9. Experience solving practical issues using some of the knowledge, strategies, and methodologies employed in the field.
10. Appreciate and gain skill on reading and thinking with research articles and models/theories in the field of gerontology and ergonomics

Other objectives/class policies:

11. To promote the development of:
 - Self-motivated, self-directed learning
 - Effective listening and communication skills
 - Critical reading & thinking
 - Creative thinking
 - Thinking with theoretical and other mental models
 - **PRIDE & INTEGRITY** *in all of your work (remember that in all assignments you are demonstrating the type of professional you are – sub- par work means you are projecting a sub-par image of yourself)*
12. For the promotion of **student listening and thinking skills** the class has the following in class policy:
 - No electronic note taking during lectures – just listening (this means no computers or cell phones on during class). Remember that the more engaged you are in the classes the more you will learn
 - Students can keep a “4457 note book” during class with questions and any points from lecture (points can be embellished after class if necessary).
 - Lectures are normally posted on OWL after the lectures are given – my philosophy: class content is less important than class process

Behaviors Expected of Students

1. I expect you to come to EVERY class and PARTICIPATE
2. In keeping with professional practice I expect students to notify the professor when your attendance in class is not possible
3. Read, read, read, and read some more (particularly as background for assignments).
4. Listen, think, produce work, and communicate as a professional.
5. **No Cell phones allowed during classes except:**

Cell Phone Class Strategy: Research is clear that cell phones and in particular texting are not only distracting of necessary attention in many life circumstances, but worse, they are very intrusive to many people’s lives. Cell phone use is dangerous during driving and walking yet many people still do it. Cell phones create intrusive thoughts not allowing people

to listen effectively and politely. To help students take control over, for many students, this addicting compulsion, the class will have regularly scheduled fit breaks designed to assist students in taking control of their cell phone use. Students may check their cell phones during the fit breaks but NOT otherwise.

Required Course Material

- I expect all assignments to be accompanied by lots of references to material students have read in preparation for and in completion of assignments **[as a rule of thumb I expect each member of a team to have read at least 5 articles beyond those provided in class to contribute to the reference list for a project – see #4-6 below]**
- Articles for quizzes will be assigned on a weekly basis. Supplemental readings are provided for YOUR interest – I hope you learn to enjoy reading in this field!

Course Evaluation

1. Self-reflection based on 3 student learning objectives (typed and handed in at the beginning of the course) handed in on the last day of classes (10%)
2. In class quizzes on Thursdays – there will be a minimum of 10 quizzes (each usually marked out of 10) with the total grade based on the best 8 (30%)
3. Driving/autonomous vehicle and quality of life interview with a senior plus paper on the potential gains in safety from autonomous vehicles (15%)
4. Investigating a fall on Western's campus (10%)
5. System wide falls prevention program in an acute care hospital or long-term care facility (30%)
6. Group Presentation (15%) – topic tba after discussion with class –“you have been asked to make a presentation at the CCAA about.....”

Note: assignments may change in weight and content after class discussion and (majority-based) agreement. Numbers 1-3 will be individually done and 4-6 will be group efforts.

Assignments: *It is very important for students to recognize that the amount of work put in may not be directly proportionate to the value given to the assignment. Several (#4-6) ASSIGNMENTS WILL BE DONE IN GROUPS.* Learning how to work in groups/teams is an important goal in this course.

Projected Course Content

[this will be a very fast paced, work intensive course]

Conceptual content for ergonomics and aging

1. Introduction and models of ergonomics and aging
2. Thinking (logically) like a scientist
3. Injury statistics for older Ontarians/Canadians
4. Investigating falls: a systems approach to the understanding of reasons for seniors falling
5. De Bono's six hats of thinking
6. Fall risk factors and fall risk assessment
7. Falls prevention strategies – systematic reviews
8. Driving: self-regulation by senior drivers
9. Driving: cognitive retraining; mental/physical fitness
10. Driving: car and road design for safety
11. Driving: quality of life, and driverless/autonomous cars for seniors
12. PE fit model

13. PE fit: assistive devices/walkers for mobility & falls prevention
14. PE fit at home: ADLs, home design, accessibility, social support

Becoming an Expert Thinker

In a complex world where solutions to problems/issues are not readily apparent, a premium is placed on thinking and other problem solving skills. Thinking is a skill to be learned and as such must be practiced to be improved. Students will be presented several “thinking” models, that when practiced on gero/ergo problems will help them become more skillful thinkers. To accomplish this objective this course will, after equipping students with thinking strategies (and an introduction to necessary conceptual content), give students real world problems to be solved.

The following thinking strategies will be presented and practiced:

1. The steps scientists use to guide their critical thinking
 - a. Finding the right articles (dealing with too much information; quality of articles in systematic reviews)
 - b. Background reading
 - c. Clarifying the question
 - d. Finding/creating methods to gather data
 - e. Analyzing and presenting the evidence
 - f. Discussing the meaning or application of the evidence
2. De Bono’s 6 hats to guide problem solving (with emphasis on creative thinking)
 - a. White – knowing the facts
 - b. Yellow – being optimistic
 - c. Green – being creative – additional emphasis placed here
 - d. Black – being critical
 - e. Red – emotional reactions
 - f. Blue – controlling the timing of hat wearing
3. Thinking with models

Course/University Policies

1. **Lateness/Absences:** Assignments are due at the beginning of class on the assigned due date and will not be accepted late, except under medical or other compassionate circumstances. Electronic submission of assignments will not be accepted (unless otherwise specified) under any circumstances. Submitting a late assignment without appropriate documentation will result in a zero (0) grade. Appropriate documentation for assignments worth less than 10% should be submitted to the instructor. A missed mid-term examination without appropriate documentation will result in a zero (0) grade. The course policy is not to allow make-ups for scheduled midterms, presentations or final exams, nor to assign a grade of Incomplete without acceptable and verifiable medical (or equivalent compassionate) reasons. Acceptable reasons might include hospital stays, serious illness, family emergencies (like serious accidents or illness, death) or similar circumstances.
2. **Written documentation:** Students who require academic accommodation should provide notification and documentation in advance of due dates, examinations, etc. stating specific reasons and dates. Students must follow up with their professors and their Academic Counselling office in a timely manner. Documentation for any request for accommodation shall be submitted directly, as soon as possible, to the appropriate Academic Counselling office of the student’s Faculty/School of registration (ex. KIN students ~ KIN Undergraduate Office), **not** to

the instructor, with a request for relief specifying the nature of the accommodation being requested. In the event of a medical request, the documentation should be obtained at the time of the initial consultation with the physician or walk-in clinic. An "Accommodation Consideration Request Form" found online or in the Kinesiology Undergraduate Office" for **ALL** such accommodation requests must be submitted into the appropriate Academic Counselling office of the student's Faculty/School of registration. These documents will be retained in the student's file, and will be held in confidence.

See <https://studentservices.uwo.ca/secure/index.cfm> for specific policy and forms relating to accommodation.

3. **Grades:** Where possible assignment objectives and rubrics will be posted on OWL. Should you have a concern regarding the grade you received for an assignment or feel that it is unfair in any way, you must wait 24 hours from the receipt of the assignment to approach the instructor or TA. In doing so, please make an appointment and prepare in writing, with evidence, why you feel your grade is inappropriate. Please be aware that in requesting a grade reassessment, your grade could go up/down/or stay the same. Note that calculations errors (which do occur!) should be brought to my attention immediately.

15% of course grades will be posted by the last day to drop a course.

4. **Scholastic offences:** They are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

http://www.uwo.ca/univsec/handbook/appeals/scholastic_discipline_undergrad.pdf.

A) Students must write their essays and assignments in their own words. Whenever students take an idea, or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence (see Scholastic Offence Policy in the Western Academic Calendar). All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between Western University and Turnitin.com (<http://www.turnitin.com>)

B) Computer marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

5. **Formatting** (*as recommended by the course instructor*): example- APA style is the approved style of writing for all assignments produced for this course. Please refer to Western University Library webpage for information on citation style and format or consult the APA publication manual: Publication manual of the American Psychological Association (6th ed.). (2009). Washington, DC: American Psychological Association.

6. According to the **Examination Conflict policy**, "A student who is scheduled to write more than two examinations in any 24-hour period may request alternative arrangements through the office of their Academic Counsellor." **This policy does NOT apply to mid-term examinations.* There will be no make-up for the mid-term exam. Students who miss this exam with a valid reason will have the final re-weighted accordingly.

7. **Classroom Behaviour:** Class will begin promptly at the time specified at the top of page one of this syllabus. In the event that you must arrive late, please enter the classroom with a minimal disturbance to the class. I reserve the right to lock the classroom door and deny entrance if lateness becomes a common occurrence. Excessive talking during class time is disruptive, disrespectful, and will not be tolerated. Students engaging in such behaviour may be asked to leave the room. Cellular phones, pagers, and text-messaging devices are disruptive when they ring in class. If you must bring these with you, please place them on silent mode or turn them off during class. Failure to do so may result in your being asked to leave.

8. Laptops for the **purpose of typing lecture notes** are permitted in class, but please be respectful to your fellow students and turn the sound off. If I receive complaints from other students regarding noise or other disruptive behaviour (e.g., watching videos on YouTube.com, updating your Facebook status, playing Solitaire), your classroom laptop privileges will be revoked.

9. Audio and/or videotaping of lectures is not permitted unless approval has been sought from the instructor in advance.

STUDENT CODE OF CONDUCT

The purpose of the Code of Student Conduct is to define the general standard of conduct expected of students registered at Western University, provide examples of behaviour that constitutes a breach of this standard of conduct, provide examples of sanctions that may be imposed, and set out the disciplinary procedures that the University will follow. For more information, visit

<http://www.uwo.ca/univsec/board/code.pdf>

ENGLISH PROFICIENCY FOR THE ASSIGNMENT OF GRADES

Visit the website <http://www.uwo.ca/univsec/handbook/exam/english.pdf>

SUPPORT SERVICES

There are various support services around campus and these include, but are not limited to:

1. Student Development Centre -- <http://www.sdc.uwo.ca/ssd/>
2. Student Health -- <http://www.shs.uwo.ca/student/studenthealthservices.html>
3. Registrar's Office -- <http://www.registrar.uwo.ca/>
4. Ombuds Office -- <http://www.uwo.ca/ombuds/>

Students who are in emotional/mental distress should refer to Mental Health@Western <http://www.uwo.ca/uwocom/mentalhealth/> for a complete list of options about how to obtain help.