

School of Kinesiology  
Faculty of Health Sciences  
Western University

**KIN 3457A Cognitive Ergonomics  
Fall 2017**

**Instructor:** Alan Salmoni

**Location:** Tu 8:30AM 9:30 AM  
Th 8:30AM-10:30AM

**TAs:** TBD

**Office:** TH 3159b

**Office Hours:** upon demand

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**Email:** asalmoni@uwo.ca

**NOTE:** All course information including assignment outlines, deadlines, etc. will be available via OWL. Also note the class has

**Course Objectives:**

*As the course professor, I care more about students learning to think than learning about content. I challenge each student to listen to class discussions carefully (not distracted by cell phones etc.), think critically about what people say, and to add their own critical and creative thoughts into the discussion.*

During classes students will:

1. Listen carefully
2. Think about what the professor and students say
3. Raise your hand to speak.

At the end of class students will:

4. appreciate issues germane to both ergonomic research and consulting. The learning culture for this class is to treat students as ergonomic consultants and to expect their behavior to mimic that of a professional in the field.
5. Understand and be able to think with example concepts/topics in co-4(D 13>BDC BT1 0 0 1 90.5/96.51 T

**Potential Lecture Topics** (topics may change or the ones below may not be covered depending on direction of major assignment)

*As one might imagine, cognitive ergonomics is a vast field that covers a multitude of topics. My intent for the lectures is to provide a few topical examples. Most importantly, my goal in the class is to get you to think as an ergonomist. For example, many students in past classes said the course changed how they see the world. They see safety issues that before the class would have gone unnoticed.*

Major and minor assignment discussion (1<sup>st</sup> 15 minutes of each class)

Introduction: What is Cognitive Ergonomics information processing, micro and macro ergonomics, a systems approach

Hierarchical task analysis (HTA)

Organization and safety culture

Risk perception & risk homeostasis

Mental Workload assessment

Attention, distractions, cell phone use & driving safety

Product design & usability

**\*\*Note that there are FOUR hours of class time per week. Some portion of the extra time will be allotted to group work sessions for assignments.**

## Course Evaluation

1. 5 quizzes on assigned reading (20%)
2. Assignments\* (70%)
  - Major assignment (40%)
    - Written report (30%)
    - Presentation (10%)
  - Hierarchical task analysis (15%)
  - Mental workload (15%)
3. Self reflection (10%) you as a learner in the course (handed in on the last day of class  
1-2 page assessment of your performance)  
assessment of the quality/depth of self-reflection

## Assignments

There will be 2 minor and 1 major assignment during the course. *It is important for the student to recognize that the amount of work they put into an assignment may not be proportionate to the value given to the assignment or the mark you get.*

In concert with my learning objectives for you, I will expect much of the work you do on assignments to be self-directed. I will provide little in the way of rubrics and explicit direction for the assignments. However, I expect teams to come to class ready to discuss issues they are having in completing the assignments (***I expect teams to do work first, including lots of reading, before asking questions***). The lectures I give will focus on providing students with mental models to help direct their thinking during assignments.

*Late submissions: Assignments will lose 33% per day late (first late day begins at 4:01 pm of the assignment due date), unless permission to hand the assignment in at an alternate time/date is granted prior to the assignment due date. Submission dates are discussed and agreed upon when assignments are given to students.*

## Minor Assignments

Assignments will be spelled out in class:

HTA assessment

Mental workload assessment

## Major Assignment Topics (to be assigned after consultation with class)

Ergonomists are often hired to solve problems that revolve around safety issues, although their scope of work can often go well beyond safety. This is particularly true because safety is always embedded in a larger picture and organizational structure. For example, safety culture is always embedded in a larger organizational culture which involves all other aspects of an organization

are always part of a much bigger picture since many factors can affect safety and safety practice/injury prevention (e.g., working efficiently, making money, having fun).

Example topic Pedestrian Safety at Western

Example topic Distracted driving on and off campus

Example topic Bicycle helmet use

## 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 (graduate 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-

**ALL** such accommodation requests must be submitted into the appropriate Academic Counselling office of

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](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**

than two examinations in any 24-hour period may request alternative arrangements through the

*\*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.

