

**KIN**nected

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Sciences

Learning Outcomes /Schedule:

The goal of this course is to examine the physiological changes with advanced age, with attention to the relationship to physical activity, disuse and disease. Upon completion of this course, students will be able to:

- Compare and contrast the theories and biomarkers of aging
- Understand the psychological changes associated with aging, and explain relationships among changes in different physiological systems
- Describe the impact of physiological changes on cognitive and physical function
- Compare and contrast the role of disuse, disease and physical activity in altering the physiological changes with advanced age
- Articulate strategies to promote healthy aging

WEEK	TOPIC
1	Introduction, Myths and Facts about Aging
2	Theories and biomarkers of aging
3	Stress and hormones
4	Cardiorespiratory function
5	Skeletal system
6	Mid-term in class
7	READING WEEK
8	Neuromuscular system
9	Brain health and cognition
10	Disuse and disease
11	Physical activity benefits and adaptations I
12	Physical activity benefits and adaptations II
13	Course wrap up and exam review

\*Note: This is a tentative list of topics. Timing, order and/or topics may change.

**Written Exams (65%):** 2 exams each designed to be 2 hours in duration. The exam format consists of multiple choice and short answer. Exams will be delivered online. The midterm will be held during class time. **There will be no make-up mid-term exam.** If the midterm is missed and appropriate documentation is provided, the grade will be redistributed to the final exam. The final exam will be worth 65%. The final exam will be scheduled for 2 hours (date and time to be set by the registrar's office).

**Quizzes (5%):** Quizzes will be completed through OWL with a time limit. They will be available from Friday afternoon until Tuesday at midnight on weeks when they are assigned. Quiz dates are listed below. **There will be no make-up quizzes.** The best four out of five quizzes will count toward the final course grade.

**Term Assignment (30%):** -Students will choose a topic related to the physiology of aging and write an overview of the physiology and present evidence that supports (or not) the benefits of physical activity in maintaining/improving the specific physiology selected. A minimum of 5 primary, peer-reviewed journal articles is required. The topic must be submitted via OWL by Friday, March 3<sup>rd</sup> at 11:55 pm (2% deduction from the paper for failing to submit a topic on time). The paper will be 5 typed pages (double spaced), excluding references, due by Friday, March 31<sup>st</sup> at 11:55 pm. 30%. No plagiarism. (100326) 12004346.92N-3. (11) 037c 288 an. 100326



You must use only your own clicker. For all components of this course in which clicker records are used to compute a portion of the grade:

- The use of somebody else's clicker in class constitutes a scholastic offence;
- The possession of a clicker belonging to another student will be interpreted as an attempt to commit a scholastic offense

#### 4. Academic Considerations and Absences from Lectures and Assessments

##### ***Religious Accommodation***

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request (in writing) any necessary academic considerations at least two weeks prior to the holiday to academic counsellors in their Home Department. Additional information is provided in the [Western Multicultural Calendar](#).

##### ***Academic Accommodation***

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. Students with ongoing accommodation needs within this course are also encouraged to contact [Accessible Education](#) which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The policy on Academic Accommodation for Students with Disabilities can be [found](#)

##### ***Academic Consideration***

The University recognizes that a student's ability to meet their academic responsibilities may, on occasion, be impaired by extenuating circumstances that are medical or compassionate in nature.

A student completing tests or examinations with flexible submission times (e.g., where one or more evaluation is a take-home assessment) cannot request alternative arrangements unless a conflict cannot be avoided by rescheduling writing the exam to a different time within the window specified by the instructor. This applies to direct conflicts as well as heavy load conflicts (e.g., three exams within a 24-hr period). The student should discuss any concerns about a potential conflict and/or request academic considerations with their academic counselling unit prior to the deadline to drop a course without academic penalty.

In the case of online tests and examinations, use of a Conflict Room, wherein student can write two proctored exams concurrently, will be interpreted as arrangements for continuous proctoring.

5. ***Contingency Plan for an In-Person Class Pivoting to 100% Online Learning***

In the event of a situation that requires this course to pivot to online content delivery, all amuatel15be2

You have the right to appeal any grade within this course. The grounds for a grade appeal may be one or more of: medical or compassionate circumstances, extenuating circumstances beyond the student's control, bias, inaccuracy, or unfairness. All grounds advanced in a request for relief must be supported by a clear and detailed explanation of the reasons for the request together with all supporting documentation.

Appeals generally proceed in this order:

1. Course instructor (informal consultation)
2. Department Chair (submission of written request)
3. The Dean of the Faculty (submission of written request)

In the case of perceived procedural unfairness, steps 2 and 3 are carried out within the Department and Faculty offering the course. In the case of extenuating medical or compassionate circumstances that impact on a grade, steps 2 and 3 are carried out with student's Home Department and Faculty.

A request for relief against a mark or grade must be initiated with the instructor as soon as possible after the mark is issued. In the event that the instructor is not available to the student, or fails to act or if the matter is not resolved satisfactorily with the instructor, a written request for relief must be submitted to the Chair of the Department within three weeks of the date that the mark was issued. In the case of a final grade in a course, the written request for relief must be submitted to the Chair of the department by January 15<sup>th</sup> (for first term half courses) or June 30<sup>th</sup> (for second term half courses or final courses).

#### 8. Support Services

##### Health and Wellness:

Information regarding health and wellness-related services available to students may be found at <http://www.health.uwo.ca/>.

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

There are various support services around campus and these include, but are not limited to:  
Student Development Centre -- <http://www.sdc.uwo.ca/ssd/>  
Ombudsperson Office -- <http://www.uwo.ca/ombuds/>

#### 9. 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 <https://www.uwo.ca/univsec/pdf/condcpdf>