

School of Kinesiology

KIN 4412A Exercise for Specific Populations: Impairment and Aging Fall 2026

Campus Supports

Western University is committed to a **thriving campus**. For help with:

- Both physical and mental health, go to [Wellness & Wellbeing](#)
- Studying with disabilities, go to [Accessible Education](#)
- Writing skills, go to the [Writing Support Centre](#)
- Learning skills and strategies, go to [Learning Development & Success](#)
- Contacting the ombudsperson, go to the [Office of the Ombudsperson](#)



Your course coordinator can also **guide you** to available campus resources and/or services.


Important Dates

Classes Begin	Reading Week	Classes End	Study day(s)	Exam Period
September 9	October 10-18	December 9	December 10	December 11-22

September 30, 2026, is National Day for Truth and Reconciliation and is a non-instructional day

November 30, 2026: Last day to withdraw from a first-term half course without academic penalty

Contact Information

Course Coordinator/Instructor	Contact Information	Office Hours
 Dr. Jeremy Walsh	Jwals4@uwo.ca 519-661-2111 ext. 88139	By appointment Thames Hall Room 4170

Teaching Assistant(s)	Contact Information	Office Hours
TBA		

NOTE: All course information including grades, assignment outlines, deadlines, etc. are available via [OWL Brightspace](#). Download the Brightspace Pulse App to stay up-to-date on course communication and enable your notification settings within “Communications” in the top toolbar. Check the website regularly for course announcements. If you need assistance, visit [OWL Brightspace Help](#) or contact the [Western Technology Services Helpdesk](#). They can be contacted by phone at 519-661-3800 or ext. 83800.

Calendar Course Description (including prerequisites/anti-requisites)

Students will learn the role of exercise in the management of chronic disease. The focus will be on understanding the roles exercise plays for individuals with impairment and older adults (i.e. diagnosis; rehabilitation; improved health). Exercise guidelines will be examined within the context of Clinical Kinesiology and clinical practice.

Prerequisite(s): [Kinesiology 3412A/B](#).

Extra Information: 3 lecture hours.

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

NOTE: If you wish to enroll in this course without the stated pre-requisite(s), you must obtain written approval from the course instructor. The approval should then be forwarded to your academic counsellor.

Delivery Mode: In person

Component	Days	Time	Location
Lecture	Tuesday	1:30-3:20	SEI 4110
Lecture	Thursday	1:30-2:20	SEI 4110

My Course Description

This course examines the principles and application of assessment and exercise prescription for individuals with impairments and aging-related conditions. Students will integrate knowledge of physiology, pathology, and functional limitations to design safe, evidence-informed exercise programs for diverse populations, including individuals with impairments, disability, or mobility limitations and older adults. Through case-based learning and applied problem-solving, students will evaluate risk, adapt exercise modalities, and justify program decisions within clinical, community, and fitness settings. Emphasis is placed on promoting functional independence, quality of life, inclusivity, and ethical practice. By the end of the course, students will demonstrate the ability to translate theory into practice through tailored exercise interventions for complex, real-world clients.

Essential Questions

1. How do we design exercise programs that are truly individualized for people with impairments and older adults, who may have complex and changing clinical presentations?
2. How do we balance safety with the need to challenge clients in order to promote meaningful functional improvements?
3. What should guide exercise decisions when clients have multiple, and sometimes competing, needs and limitations?

Learning Outcomes

Upon completion of this course, students will be able to:

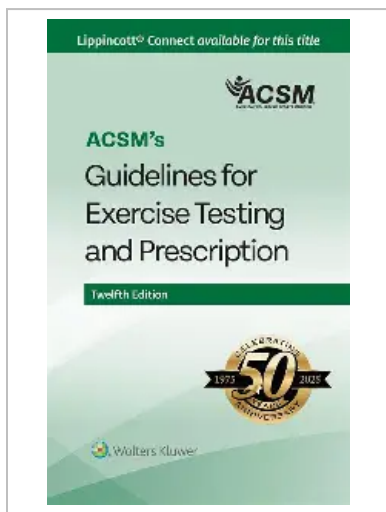
1. **Analyze** client case information (e.g., health history, impairments, functional capacity) to identify key risks, limitations, and priorities for exercise participation in simulated clinical scenarios.
2. **Design** individualized exercise programs for individuals with impairments and older adults using evidence-based guidelines in case-based assignments.
3. **Modify and progress** exercise programs in response to changing client presentations within simulated or practical scenarios.
4. **Justify** exercise prescription decisions using current evidence and clinical reasoning in written or oral case analyses.
5. **Demonstrate and instruct** appropriate exercise techniques and modifications safely for individuals with common impairments.

Transfer Goals

After this course, students will independently use their learning to:

1. Assess clients with impairments or age-related conditions and design, implement, and adapt safe, individualized exercise programs that respond to changing needs in real-world practice settings.
2. Apply clinical reasoning and evidence-based guidelines to make informed decisions about exercise prescription, risk management, and progression for diverse populations.

Course Materials You May Acquire and Their Costs



Recommended Textbook:

ACSM's Guidelines for Exercise Testing and Prescription (12th edition), by ACSM & Ozemek Cemal, published by Wolters Kluwer, 2025, ISBN: 9781975219215.

This is available for \$88.25 at the [Dellelce Family Bookstore](#), US\$58.99 on the [publishers website](#) or CA\$86.50 on [Canadian shopping websites](#).

Older editions are acceptable and note that this textbook will also be used in KIN 3402, KIN 3412 and KIN 4590.

All other course readings will be posted on Brightspace.

Course Content and Schedule

Week	Dates	Topic	Things due
1	Thurs Sep 10	Course Introduction	
2	Tues Sep 15 Thurs Sep 17	Overview of Aging Overview of Impairment	
3	Tues Sep 22 Thurs Sep 24	Impairment 1	Quiz 1 (Sep 27)
4	Tues Sep 29 Thurs Oct 1	Impairment 2	
5	Tues Oct 6 Thurs Oct 8	Presentations	Case Study – Impairment
6	Oct 10-18	Reading Week	
7	Tues Oct 20 Thurs Oct 22	Midterm Recap	Midterm Exam (Oct 20 In-class)
8	Tues Oct 27 Thurs Oct 29	Exercise & Age-Related Body Composition Changes	
9	Tues Nov 3 Thurs Nov 5	Exercise & Age-Related Bone Changes	Quiz 2 (Nov 8)
10	Tues Nov 10 Thurs Nov 12	Exercise & Age-Related Muscle Changes	
11	Tues Nov 17 Thurs Nov 19	Exercise & Age-Related Cardiovascular Changes	Quiz 3 (Nov 19)
12	Tues Nov 24 Thurs Nov 26	Exercise & Age-Related Neurological Changes	
13	Tues Dec 1 Thurs Dec 3	Presentations	Case Study – Aging
14	Tues Dec 8	Review & Recap	

Assessments and Evaluation

Below is the evaluation breakdown for the course. Any deviations will be communicated.

Assessment	Format	Weight	Due Date	Flexibility
Online Quizzes (Brightspace) ¹	MCQ	10%	Sep 27, Nov 8, 19	Drop lowest; best 2 of 3 scores count ¹
Case Study – Impairment ²	Oral presentation	10%	Oct 6, 8	Present on one of two dates
Midterm Exam ³	Mixed format. In class, on paper.	30%	Oct 20	Designated assessment ³
Case Study – Aging ²	Oral presentation	10%	Dec 1,3	Present on one of two dates
Final Exam ⁴	Mixed format	40%	Registrar	Not applicable

¹⁻⁴ Notes overleaf

1. This course has **3 online quizzes**, delivered by Brightspace. All quizzes are open book and will be available for completion for 48-hours prior to the submission time of 23:59 EST on the dates noted in the schedule. The 2 quizzes with the highest marks will be counted towards your final grade. Each quiz is worth 5% for a total of 10%. Academic consideration requests will be denied for the first missed quiz. Academic Consideration requests may be granted when students miss more than 1 quiz and these additional missed quizzes will be rescheduled, if possible, or else the assessment value of the additional missed quizzes will be redistributed among the completed quizzes. Additional missed quizzes without academic consideration will receive a score of zero. If all quizzes are missed with approved considerations, the grade for this component will be applied to the final exam.
2. **Case Studies (group assignments):** You will be given two case studies, one on *impairment* and one on *aging*. You are tasked with prescribing an appropriate exercise program for these individuals. You will present the case study and your planned intervention to your peers, in class on Oct 6th or 8th (Impairment), and Dec 1st or 3rd (Aging). These **oral presentations** are each worth 10% of your final grade. If your group misses this assessment without Academic Consideration, you will receive a score of zero. If members of the group miss this assessment with Academic Consideration, this will be rescheduled, if possible, or else may be submitted as a video, or other format, as agreed with the instructor. Only the members with extenuating circumstances need to submit academic consideration requests and they must notify other group members as soon as possible. In these circumstances, the other group members may proceed with the presentation on the scheduled date, or it may be rescheduled as agreed with the instructor.
3. The **Midterm Exam** will cover all course material up to and including October 8th. This 90-minute exam will consist of multiple-choice and short-answer questions. This is a **designated assessment** considered central to the assessment of learning outcomes in this course. Accordingly, students must provide documentation for any absence from this evaluation. If you miss this evaluation, you must complete the makeup assessment which is scheduled for **October 29th 9:30-11:00**. The makeup assessment is an extension of the Midterm Exam, and so you will need to present documentation for this assessment, should you need to miss it. Please note that there is only one makeup assessment for this Midterm. ***The makeup may take an alternative format to the Midterm, e.g., essay style.*** Students approved to miss the makeup will have the weight of this assessment redistributed to the Final Exam. Students must not provide medical or compassionate documentation to the instructor. Students who miss the mid-term and make-up without approved academic considerations will receive a grade of zero.
4. The **Final Exam** will cover all course material. This 2-hours exam will consist of case-based (vignette-style) and independent multiple-choice questions in the style of the College of Kinesiologists of Ontario entry to practice exam. This assessment is considered central to the assessment of learning outcomes in this course. Accordingly, students must provide documentation for any absence from this evaluation. You cannot use undocumented absences for final exams. If you miss this evaluation, you must complete the makeup assessment. The makeup for the final exam will be held in January. The date, time, and location of this Special Exam will be posted to Brightspace in December.

General information about assessments

- All assignments are due at 23:59 EST unless otherwise specified. Late or missing assignments without academic consideration will receive a zero.
- You are responsible for ensuring that the correct file version is uploaded; incorrect submissions including corrupt files will receive a zero.
- After an assessment is returned, you should wait 24 hours to digest feedback before contacting your evaluator; to ensure a timely response, reach out within 7 days.

- ✓ Requests for regrading must include a written explanation and evidence showing how the work meets the assignment criteria or rubric. Requests without a clear justification will not be considered.
- ✓ Prior to the filing of a written request for relief, you must attempt to resolve the concern regarding a mark or grade through informal consultation with the instructor. If you are dissatisfied with the decision of the instructor or you do not receive a decision from the instructor, a written request for relief must be submitted to the Undergraduate Chair of the School offering this course, within three weeks from the date that the mark was issued.
- ✓ The table below outlines University-wide grade descriptors.

Letter grade	Number grade	Description
A+	90-100	One could scarcely expect better from a student at this level
A	80-89	Superior work which is clearly above average
B	70-79	Good work, meeting all requirements, and eminently satisfactory
C	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable
F	below 50	Fail

Rounding of Grades (for example, bumping a 79 to 80%)

This is a practice some students request. The final grade documented is the grade that you have achieved. There is no rounding to the next grade level, or ‘giving away’ of marks. Please don’t ask me to do this for you; the response will be “please review the course outline where this is presented”.

INC (Incomplete Standing): If a student has been approved by the Academic Advising Office (in consultation with the instructor/department) to complete term work at a later date, an INC will be assigned. Students with INC will have their course load in subsequent terms reduced to allow them to complete outstanding course work. Students may request permission from Academic Advising to carry a full course load for the term the incomplete course work is scheduled.

SPC (Special examination): If a student has been approved by the Academic Advising Office to write a Special Examination and the final exam is the only outstanding course component, an SPC will be assigned. If the class has a makeup exam, the student is expected to write the makeup exam. If the class doesn’t have a makeup exam or the student misses the makeup exam for reasons approved by the Academic Advising Office, the student will write the exam the next time the course is offered. Outstanding SPCs will reduce the course load for the term the exam is deferred as outlined in [Types of Examinations](#) policy

Academic Policies and Statements

Support Services

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

1. Academic Support and Engagement - <http://academicsupport.uwo.ca>
2. Wellness and Well-being - <https://www.uwo.ca/health/>
3. Registrar’s Office -- <http://www.registrar.uwo.ca/>
4. Ombuds Office -- <http://www.uwo.ca/ombuds/>

The websites for Registrarial Services (<http://www.registrar.uwo.ca>), and the same for affiliated university colleges when appropriate, and any appropriate Student Support Services (including

the services provided by the USC listed here: <http://westernusc.ca/services/>) and the Student Development Services, should be provided for easy access.

Students who are in emotional/mental distress should refer to <https://www.uwo.ca/health/> for a complete list of options about how to obtain help.

Statement on Gender-Based and Sexual Violence

Western is committed to reducing incidents of gender-based and sexual violence and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts at:

https://www.uwo.ca/health/student_support/survivor_support/get-help.html.

Statement on Harassment and Discrimination

Western is committed to providing a learning and working environment that is free of harassment and discrimination. All students, staff, and faculty have a role in this commitment and have a responsibility to ensure and promote a safe and respectful learning and working environment. Relevant policies include Western's Non-Discrimination/Harassment Policy (M.A.P.P. 1.35) and Non-Discrimination/Harassment Policy – Administrative Procedures (M.A.P.P. 1.35). Any student, staff, or faculty member who experiences or witnesses' behaviour that may be harassment or discrimination **must report the behaviour** to the Western's Human Rights Office. Harassment and discrimination can be human rights-based, which is also known as EDI-based, (sexism, racism, transphobia, homophobia, islamophobia, xenophobia, antisemitism, and ableism) or non-human rights-based (personal harassment or workplace harassment).

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/board/code.pdf>

Absence from Course Commitments

Students must familiarize themselves with the Policy on [Academic Consideration – Undergraduate Students in First Entry Programs](#)

Students missing course work for medical, compassionate, or extenuating circumstances can request academic consideration by completing a request at the [central academic consideration portal](#). Students are permitted one academic consideration request per course per term **without** supporting documentation. Note that supporting documentation is **always** required for academic consideration requests for examinations scheduled by the office of the registrar (e.g., December and April exams) and for practical laboratory and performance tests (typically scheduled during the last week of the term).

Students should also note that the instructor may **designate** one assessment per course per term that requires supporting documentation. This designated assessment is described elsewhere in this document. Academic consideration requests may be denied when flexibility in assessment has already been included. Examples of flexibility in assessment include when there are assessments not required for calculation of the final grade (e.g. 8 out of 10 quizzes), when there is flexibility in the submission timeframe (e.g. 72 hour no late penalty period), or when timed assessments (e.g., quizzes) are available over an extended period of time (e.g., when you are given a 72 hour time period to start – and finish – the assessment).

Please note that academic considerations in this course are granted by the academic advisors in your home unit and implemented by the instructor of this course in accordance with information presented in this course syllabus. Supporting documentation for academic considerations for absences due to illness should use the [Student Medical Certificate](#) or, where that is not possible, equivalent documentation by a health care practitioner. If your absence relates to accommodations that are already supported by [Accessible Education](#), please work with your accessible education counsellor regarding your missed course work.

Accommodation for Religious Holidays

Students should review the policy for [Accommodation for Religious Holidays](#). Where a student will be unable to write examinations and term tests due to a conflicting religious holiday, they should inform their instructors as soon as possible but not later than two weeks prior to writing the examination/term test. In the case of conflict with a midterm test, students should inform their instructor as soon as possible but not later than one week prior to the midterm.

Special Examinations

A Special Examination is any examination other than the regular examination, and it may be offered only with the permission of the Dean of the Faculty in which the student is registered, in consultation with the instructor and Department Chair. Permission to write a Special Examination may be given on the basis of compassionate or medical grounds with appropriate supporting documents. To provide an opportunity for students to recover from the circumstances resulting in a Special Examination, the University has implemented Special Examination dates. The Faculty of Health Sciences has set School-specific dates for these Special Examinations. Please speak with your instructor about the date on which the Special Examination for this course will be held.

Scholastic Offences

Scholastic offences are taken seriously and students are directed to read the policy on [Scholastic Discipline for Undergraduate Students](#).

Plagiarism

Student work is expected to be original. Plagiarism is a serious academic offence and could lead to a zero on the assignment in question, a zero in this course, or your expulsion from the university. You are plagiarizing if you insert a phrase, sentence or paragraph taken directly from another author without acknowledging that the work belongs to him/her. Similarly, you are plagiarizing if you paraphrase or summarize another author's ideas without acknowledging that the ideas belong to someone else. All 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 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 (www.turnitin.com).

For group assignments, all members share responsibility for academic integrity. Plan your work so the group has time to review the full submission and ensure all sources are appropriately used and cited. In the absence of a scholastic offence, everyone gets the same mark, so work with the rest of your group in a proactive fashion.

Use of Artificial Intelligence (AI) for the Completion of Course Work

Within this course, you may only use artificial intelligence tools (e.g., "ChatGPT") in ways that are specifically authorized by the course instructor. All submitted work must reflect your own thoughts

and independent written work.

Re-submission of Previously Graded Material

Without the explicit written permission of the instructor, you may not submit any academic work for which credit has been obtained previously, or for which credit is being sought, in another course or program of study in the University or elsewhere.

Use of Statistical Pattern Recognition on Multiple Choice Exams

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.

Accessibility Statement

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Accessible Education (AE) at 661-2111 x 82147 for any specific question regarding an accommodation or review [The policy on Accommodation for Students with Disabilities](#). If you think you may qualify for ongoing accommodation (e.g. separate room to write exams, flexibility with deadlines, etc.) that will be recognized in all your courses, we encourage you to visit [Accessible Education](#) for more information.

Correspondence Statement

The centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at their official university address is attended to in a timely manner. Students are further expected to attend to announcements presented through Brightspace, and to read emails generated in this way.

Use of Electronic Devices During Exams

Unless you have medical accommodations that require you to do so, or explicit permission from the instructor of the course, you may not use any electronic devices (e.g., cell phones, tablets, cameras, smart glass, smart watches, or iPods) during ANY tests, quizzes, midterms, examinations, or other in-class evaluations. **These devices MUST either be left at home or with your belongings at the front of the room. They MUST NOT be at your test/exam desk or in your pocket. Any student found with a prohibited device will be referred for investigation of a Scholastic Offence, per the policy listed above. The typical first-offence penalty for possession of a prohibited device is zero on the test or exam.**

Use of Electronic Devices During Lectures and Tutorials

Although you are welcome to use a computer during lecture and tutorial periods, you are expected to use the computer for scholastic purposes only, and refrain from engaging in any activities that may distract other students from learning. From time to time, your professor may ask the class to turn off all computers, to facilitate learning or discussion of the material presented in a particular class.

Copyright and Audio/Video Recording Statement

Course material produced by faculty is copyrighted and to reproduce this material for any

purposes other than your own educational use contravenes Canadian Copyright Laws. Unless explicitly noted otherwise, you may not make audio or video recordings of lectures – nor may you edit, re-use, distribute, or re-broadcast any of the material posted to the course website.

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 remaining course content will be delivered entirely online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on Brightspace for students to view at their convenience). The grading scheme will **not** change. Any remaining assessments will also be conducted online as determined by the course instructor

Note that disruptive behaviour of any type during online classes, including inappropriate use of the chat function, is unacceptable. Students found guilty of Zoom-bombing a class or of other serious online offenses may be subject to disciplinary measures under the Code of Student Conduct.

Online Proctoring

Tests and examinations in this course may be conducted using a remote proctoring service. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide **personal information** (including some biometric data) and the session will be **recorded**. Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More information about this remote proctoring service, including technical requirements, is available on Western's Remote Proctoring website at: <https://remoteproctoring.uwo.ca>.

Academic Appeals and Scholastic Offences

Students can file a **request for relief from academic decisions** if the request is based on one or more grounds listed in the policy. Students can read more about the policy [here](#) and a link to the procedures is listed in the Support Services sections of this document.

Students may **appeal** some academic and scholastic disciplinary decisions by a Dean or their designate, to the Senate Review Board Academic (SRBA). Students can read more about the policy [here](#) and a link to the procedures is listed in the Support Services section of this document.