

Western University
Faculty of Health Sciences
School of Kinesiology

**KIN 3412B – Exercise for Specific Populations: Chronic Disease
Winter 2021**

| | |
|--|---|
| <p>Instructor: Dr. Marc Mitchell Office: Arts & Humanities Bldg Rm 3R12B Email: marc.mitchell@uwo.ca Phone: 519/661-2111 x87936 Office Hrs: Every other Wednesday from 10:30am-11:20am (see Zoom on OWL)</p> <p>TAs: Kirsten Dillon, Kdillon9@uwo.ca Daniel Henke, Dhenke@uwo.ca</p> | <p>Lectures: Recorded lectures posted weekly; office hours and small group discussions live on Zoom; oral case presentations will also be live.</p> <p>Instruction Mode: Online</p> |
|--|---|

NOTE: All course information including grades, assignment outlines, deadlines, etc. are available via OWL. Check the website regularly for course announcements.

Calendar Course Description (including prerequisites/anti-requisites):

Students will learn the role of exercise in the management of chronic disease. Chronic diseases include: metabolic, cardiovascular and pulmonary diseases, cancer. The implications of performing safe/effective exercise prescription and evaluation will be considered. Physical activity guidelines will be examined within the context of Professional Kinesiology and clinical practice.

Prerequisite(s): [Kinesiology 3402A/B](#) or the former Kinesiology 3421A/B;

Extra Information: 3 lecture hours.

You are responsible for ensuring that you have successfully completed all course pre-requisites, and that you have not taken an anti-requisite course.

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 enrol 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.

My Course Description

Registered Kinesiologists can play a vital role when it comes to the prevention, rehabilitation and management of many chronic diseases. In this course, students will learn to design safe and effective exercise programs for the secondary prevention of common chronic conditions. Specifically, students will learn how to develop 'exercise prescriptions' for clients living with metabolic, cardiovascular and pulmonary diseases. Students will be exposed to the many factors influencing exercise prescription in these high-risk sub-populations, including physiologic, psychological, clinical, behavioural, and social factors. The main course objective will be to arm students with a logical step-by-step approach to exercise prescription in clinical settings. The course will be lecture based with a focus on real world scenarios. Case-tests, group discussion, clinical case presentation opportunities will facilitate clinical skill development.

Learning Outcomes/Schedule:

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

1. **Identify and delineate** theoretical terms and concepts with regards to clinical exercise testing and prescription. (Knowledge)
2. **Compare and contrast** theoretical and practical approaches for exercise prescription in clinical settings including special considerations for specific populations as well as unique social and behavioral contexts. (Analysis)
3. **Synthesize** research and practical knowledge about exercise assessment and intervention for various populations. (Comprehension)
4. Begin to **Develop** skills in professional and clinical decision making as they pertain to exercise prescriptions designed by Registered Kinesiologists. (Application)
5. **Further develop** abilities to *critically reflect* upon own learning and relate to the topics discussed in class. (Reflection)

Required Course Material/Text:

Required readings are from *ACSM's Guidelines for Exercise Testing and Prescription* (10th Ed.). Supplemental readings will be posted on OWL as well.

Course Evaluation:

Assignments are due as stated in the course syllabus and will not be accepted late, except under medical or other compassionate circumstances. Submitting a late assignment without appropriate documentation will result in a zero (0) grade. A missed mid-term examination, without appropriate documentation will result in a zero (0) grade. Acceptable reasons might include hospital stays, serious illness, family emergencies (like serious accidents, illness or death) or similar circumstances.

| | |
|---|-------|
| 1. "Peerwise" student-led test question development (1% every week) | 10% |
| 2. Small Group Discussions (5x2%; see dates below) | 10% |
| 3. Exercise Prescription Tests/Quiz (tests=3x17.5% and quiz=1x10%; see dates below) | 62.5% |
| 4. Oral Case Presentation (2 min presentation; Week 12) | 17.5% |

Evaluation Details:

1. "PeerWise" student-led test/quiz question development

Every week you will be asked to write 3 really great multiple choice questions based on content covered for that week (e.g., from slides, spoken lecture, readings, videos, etc.). The great thing is you can test your knowledge every single week by answering your peers' questions! I love this new tool and hope you do too. Highly ranked questions will be used on the actual exam. The criteria for earning full marks (all 10%) will be shared in Week 2. Under "Topic" always write the week we are in (e.g., Topic = "Week 2").

2. Small group discussions

Five times over the course of the semester you will be asked to read an article (first one) or watch/read patient videos/stories (the rest) to give you real insight into what life is like when living with a chronic disease. I hope in learning about these patient journeys, answering (and submitting) a few related questions, and participating actively in the smaller group discussions, you will be better prepared to work with real patients, real people in the near future. You will earn 1% for a properly completed answer sheet (submitted before discussion under 'Assignments') and 1% for active participation in the discussion.

3. Exercise prescription tests (3) and quiz (1)

The bulk of your mark for this course will come from the exercise prescription tests/quiz. They will be multiple choice and fill in the blank format (~20 questions each with ~10 'content type' questions and ~10 'case-based' questions). They will be open book and linear (students will not be able to 'go back' to previous question). **If you miss an exercise prescription test/quiz, your other 3 tests/quiz will be re-weighted.*

4. Oral case presentation

Giving an oral presentation is an important skill for anyone working in health. In a clinical setting, you must be able to document what is going on in written format and then transmit it clearly to other health care providers. To do this successfully, you need to understand the patient's socio-economic situation, their medical illness and its complexities, and several other factors (e.g., orthopedic, risk factors, etc.). You then need to compress all the 'data' into a concise, organized recitation of the most essential facts. The listener needs to be given all of the relevant information **without extraneous details** and should be able to construct his/her own care plan as the story unfolds. Consider yourself an advocate who is attempting to persuade an informed, interested judge the merits of your argument, without distorting any of the facts. The same patient will be presented very differently depending on the audience (e.g., cardiologist, social worker, family members). Prepare your presentation as if it is being given to the medical director of the chronic disease rehabilitation program where you work.

Specific instructions:

- 1) The presentation is NOT a simple recitation of the write-up. It is a concise, edited presentation of the most essential information. *It has as much to do with style than substance. Be smooth and succinct.*
- 2) It should be no more than 2 minutes long. Marks will be lost if you go over 2 minutes so practice, practice, practice and time yourself when you do.
- 3) The basic structure should include:
 - a. Identifying information and chief issue (start with ... e.g., "Mr. Bradey is a pleasant 67 year old man who was diagnosed with type 2 diabetes 10 years ago.").
 - b. Most important aspects from medical history
 - c. Fitness test results (or if none, recommendation for tests to be completed in near future)
 - d. Special considerations (items that must be considered in prescribing exercise for this person)
 - e. Care plan items with very brief rationale for exercise prescription and other items too IF time allows and IF you deem particularly relevant (Lead this concluding part of presentation with: "To achieve such and such a goal my care plan for Mr. Bradey includes...").

Weekly Schedule

| Week | Topic | Notable Events |
|---------|---|---|
| Week 1 | Introduction; defining chronic disease in aging context | |
| Week 2 | Exercise prescription basics: AT/RT & FT/NM | Friday Small Group Discussion ('Step-by-Step' reading) |
| Week 3 | 'Step-by-step' approach; Seniors and Clinical Fitness Tests | |
| Week 4 | Osteoarthritis (OA) aka pain | |
| Week 5 | Osteoarthritis (OA) aka pain | Monday Small Group Discussion (OA patient) & Test #1 on Friday |
| | No class | Reading Break |
| Week 6 | Type 2 diabetes (T2D) | |
| Week 7 | Type 2 diabetes (T2D) | Monday Small Group Discussion (T2D patient) & Test #2 on Friday |
| Week 8 | Heart disease | |
| Week 9 | Heart disease | Monday Small Group Discussion (heart disease patient) & Test #3 on Friday |
| Week 10 | Chronic obstructive pulmonary disease (COPD) | |
| Week 11 | Chronic obstructive pulmonary disease (COPD) | Monday Small Group Discussion (COPD patient) & Quiz #4 on Wednesday |
| Week 12 | Case Presentations | *These will be live on Zoom. |

Course/University Policies

1. Statement on Use of Personal Response Systems (“Clickers”)

If Personal Response Systems (“Clickers”) are used in the course, a reference to the Guidelines for their use (Guidelines are shown below). Instructors are to communicate clearly to students information on how clickers are used including: how the student’s privacy will be protected, how clickers may be used by the instructor for data gathering and for evaluating the students, and why they cannot be used by anyone but the student (since the students involved in misuse of a clicker may be charged with a scholastic offence).

2. **Academic 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: https://www.uwo.ca/univsec/pdf/academic_policies/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.

3. Electronic Device Usage:

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 of the following electronic devices during ANY of the tests, quizzes, midterms, examinations, or other in-class evaluations: cellphones, smart phones, smart watches, smart glasses, audio players or recorders of any sort, video cameras, video games, DVD players, televisions, laptop/notebook/netbook computers, flashlights or laser pointers.

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. Please be respectful to your fellow students and turn the sound off. If the professor receives complaints from other students regarding noise or other disruptive behavior (e.g. watching videos on YouTube.com, updating your Facebook status, playing Solitaire), your classroom privileges will be revoked. 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. **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.**

4. 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.

5. 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 & Wellness* -- <http://www.health.uwo.ca/>
3. *Registrar's Office* -- <http://www.registrar.uwo.ca/>
4. *Ombudsperson Office* -- <http://www.uwo.ca/ombuds/>

6. **Documentation for Academic Accommodation (Illness, Medical/Non-Medical Absences):**
http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_12

Students who experience an extenuating circumstance (illness, injury, or other extenuating circumstance) sufficiently significant to temporarily render them unable to meet academic requirements may submit a request for academic consideration through the following routes:

- (i) Submitting a Self-Reported Absence (see below for conditions)
 - (ii) For medical absences exceeding 48 hours, submitting a Student Medical Certificate (SMC) signed by a licensed medical or mental health practitioner to their Academic Counselling in their Faculty of registration in order to be eligible for Academic Consideration; or
 - (iii) For non-medical absences exceeding 48 hours, submitting appropriate documentation (e.g., obituary, police report, accident report, court order, etc.) to Academic Counselling in their Faculty of registration in order to be eligible for academic consideration. Students are encouraged to contact their Academic Counselling unit to clarify what documentation is appropriate.
- Students seeking academic consideration **must communicate with their instructors no later than 24 hours** after the end of the period covered by either the self-reported absence or SMC, or immediately upon their return following a documented absence.

The following conditions are in place for self-reporting of medical or extenuating circumstances:

- a. a **maximum of two self-reported absences** between September and April and one self-reported absence between May and August;
- b. any absences in excess of the number designated in clause a above will require students to present a Student Medical Certificate (SMC) or appropriate documentation supporting extenuating circumstances to the Academic Counselling unit in their Faculty of registration no later than two business days after the date specified for resuming responsibilities.
- c. The duration of the excused absence will be for a maximum of 48 hours from the time the Self-Reported Absence form is completed through the online portal, or from 8:30 am the following morning if the form is submitted after 4:30 pm;
- d. The duration of the excused absence will terminate prior to the end of the 48 hour period should the student undertake significant academic responsibilities (write a test, submit a paper) during that time;
- e. The duration of an excused absence will terminate at 8:30 am on the day following the last day of classes each semester regardless of how many days of absence have elapsed;
- f. Self-reported absences will not be allowed for scheduled final examinations; for midterm examinations scheduled during the December examination period; or for final lab examinations scheduled during the final week of term;
- g. Self-reporting may not be used for assessments (e.g. midterm exams, tests, reports, presentations, or essays) worth more than 30% of any given course;

For medical and non-medical absences that are not eligible for self-reporting Kinesiology students must submit an Academic Consideration Request form found online https://www.uwo.ca/fhs/kin/undergrad/files/accommodation_request.pdf in addition to an SMC or appropriate documentation in the event of a non-medical absence. These documents will be retained in the student's file, and will be held in confidence in accordance with the University's Official Student Record Information Privacy Policy.

7. **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.

Generally, students can expect some form of feedback on their performance in a course before the drop date.

- November 12th, 2020 (for first term half-courses)
- November 30th, 2020 (for full-year courses)
- March 7th, 2021 (for second term half-or full year courses)

| | | |
|----|----------|--|
| A+ | 90-100 | <i>One could scarcely expect better from a student at this level</i> |
| A | 80-89 | <i>Superior work that is clearly above average</i> |
| B | 70-79 | <i>Good work, meeting all requirements and eminently</i> |
| C | 60-69 | <i>Competent work, meeting requirements</i> |
| D | 50-59 | <i>Fair work, minimally acceptable.</i> |
| F | below 50 | <i>Fail</i> |

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

This is a practice some students request. **This practice will not occur here.** The edges of this course are clear and sharp. The mark attained is the mark you achieved and the mark assigned; 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".

8. 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. Please keep all electronic devices on silent and avoid distracting classmates.

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/board/code.pdf>