



# KINE 4472

## Low Back Performance and Disorders

### Winter 2023 – Course Outline

#### **ACKNOWLEDGEMENT OF INDIGENOUS PEOPLES AND TRADITIONAL TERRITORIES**

York University recognizes that many Indigenous Nations have longstanding relationships with the territories upon which York University campuses are located that precede the establishment of York University. We acknowledge our presence on the traditional territories of the Mississaugas of Credit First Nation, the Huron-Wendat, the Haudenosaunee Confederacy and the Métis Nation of Ontario.

This acknowledgement does not come without action for truth and reconciliation (see the [Calls to Actions from the Truth and Reconciliation Commission of Canada](#)). Learn more about the [significance of land acknowledgements](#).

#### **COURSE INSTRUCTOR**

Instructor: Dr. Janessa Drake (she/her/hers), 2030 Sherman HSRC  
Course Email: [spine@yorku.ca](mailto:spine@yorku.ca)  
TA: Sam Vasilounis (he/him/his)

#### **COURSE INFORMATION**

Lectures: Monday (ACE 013) and Wednesday (R S123), 11:30 am – 12:50 pm  
Labs: Wednesday (FRQ 164) 1:00pm – 1:50pm  
Wednesday (FRQ 164) 2:00pm – 2:50pm  
eClass: [HH/KINE4472 M - Low Back Performance and Disorders \(Winter 2022-2023\)](#)  
Email/Office Hour: TBA

#### **PREREQUISITE / CO-REQUISITE**

HH/KINE 3030 3.0 – Biomechanics of Human Movement

Note: It is strongly recommended that HH/KINE 2031 3.0 – Human Anatomy also be completed prior to enrolling in HH/KINE 4472 – Low Back Performance and Disorders.

#### **EXPANDED COURSE DESCRIPTION**

Introduction to evidence-based exercises and strategies for optimal low back function, and effective injury prevention and rehabilitation. This advanced biomechanics course is built upon a strong foundation from anatomy, normal and injury mechanics, and motor control. Multidisciplinary issues related to low back performance and disorders are examined; including psychological, physiological, legislative, neuromuscular, and biomechanical. Theory is applied and practiced during labs.

## **COURSE LEARNING OBJECTIVES**

1. To develop an understanding of low back function and injury mechanisms.
2. To develop an understanding of the development of evidence-based approaches for rehabilitation and training.
3. To develop an understanding of the role of sophisticated biomechanical testing on low back function (i.e. electromyography, 3D motion analyses, force transducers, etc.).
4. To develop an understanding of the most appropriate strategies for optimizing low back performance and low back injury prevention.
5. To practice the approaches, testing, and methods described in lecture during labs.
6. To be able to critically read and summarize scholarly articles and to continue to develop pertinent written and oral skills.

## **REQUIRED COURSE MATERIALS**

### **Textbook:**

McGill, S.M. Low back disorders: Evidence based prevention and rehabilitation, Human Kinetics Publishers, Champaign, IL, U.S.A., Third Edition (2016, ISBN-13: 9781450472913).

- Copy on reserve @Steacie for a loan period of 24 hours
- You can purchase the eText or hard copy through the publisher Human Kinetics (<https://canada.humankinetics.com/>)

## **COURSE FORMAT**

### **Overview:**

The course involves formal lectures given by Dr. Drake. Lectures will be supplemented by labs, and may also be supplemented by videos and guest speakers where appropriate. The required textbook is available on reserve and will supplement the information provided in lecture. Additional journal articles may also be assigned. Students are expected to come to class/laboratory prepared, to take notes and participate. Students are also expected to take notes on the important concepts from the readings that are assigned and/or discussed during lecture. Students are responsible for all lectures, activities, and other materials posted to eClass. Students are also responsible for being actively involved in the course, and for checking eClass regularly and frequently to ensure you have the latest information about the course. “I did not know because I was not online” or “because I did not check eClass” are not excuses that will be accepted under any circumstances for the course.

### **Lectures:**

The lectures will be held in-person unless otherwise directed by the University and/or School of Kinesiology and Health Science or as required due to unforeseen circumstances (e.g. Dr. Drake is sick, school closure, etc.). Likewise, some lectures may be held via Zoom or may be recorded on or before scheduled lecture days and posted on eClass, with the intent that students use the lecture time to review these pre-recorded lectures. Students are expected to attend and participate in all classes; the in-person live lectures will be recorded and posted on eClass.

### **Labs:**

During your scheduled lab time, the Teaching Assistant (TA) will host an in-person lab session (unless otherwise directed due to unforeseen circumstances, see above). You are expected to be available to attend your lab time each week. Labs will NOT be recorded regardless of delivery format (in-person or online). As such, students are expected to attend and participate in all the lab sessions and take notes where applicable.

### Technical Requirements and Platform Information:

Several platforms will be used in this course (e.g., eClass, Zoom, etc.) through which students will interact with the course materials, and may interact with the Course Instructor/TA and one another. Therefore, sufficient internet connectivity and a computer or smart device with a camera and microphone are required to complete the course. Please note, that you can always find stable connectivity on campus, especially in the library and computing pools (where you could use your own system or one of York's systems). You can also find stable connectivity at local community libraries. Please review this outline and information on eClass to determine how the class meets (in whole or in part for lectures and labs), and how office hours will be conducted. Technology requirements and FAQs for eClass can be found here:

<https://lthelp.yorku.ca/95440-student-faq>. Also, there are additional resources in the Computing Related Links section below.

Students shall note the following:

- You are required to turn on your device camera when joining a Zoom session.
- Zoom is hosted on servers in the U.S. This includes recordings done through Zoom.
- If you have privacy concerns about your data, provide only your first name or a nickname when you join a session.
- The system is configured in a way that all participants are automatically notified when a session is being recorded. In other words, a session cannot be recorded without you knowing about it.

### COURSE EVALUATION

#### Components:

This course involves several evaluative components in which students can earn their grade.

Key Soft Skills*	5%	31 <sup>st</sup> January 2023 (12pm EST)
Midterm Exam	25%	In-class, TBA
Presentation & Paper**	20%	In-class, TBA
Lab Assignments	5%	TBA
Lab Test	15%	In-lab, time assigned
Final Exam	30%	TBA

Note:

- All components are to be completed by the student and no one else unless otherwise noted in lecture (e.g. completing the *Presentation & Paper* component as a group).
- Dr. Drake and TA will NOT be available to answer questions or provide clarification 24 hours prior to the deadline of any course component regardless of how such inquiries are made (in-person, by telephone, email, zoom, eClass, etc.). This approach is used to encourage students to begin preparation early.
- Final course grades may be adjusted to conform to Program or Faculty grades distribution profiles.
- *\*Key Soft Skills* component
  - Earned by completing the Academic Integrity and 4 other modules and related quizzes (complete five total). This is an all-or-nothing completion requirement.
  - Students will have three attempts for each quiz to get the required 100% to earn completion on that quiz.
  - Students may choose to opt out of the *Key Soft Skills* component and have the weighting added to their *Midterm* (weighting becomes 30%).

- The materials were created by the Learning Commons (SPARK modules; Academic Integrity, Time Management, Gathering & Noting Ideas, and Effective Reading Strategies), compiled from Learning Scientists by the Student Community & Leadership Development (Evidence Based Study Strategies), or by the Panel of Research Ethics (Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans 2 Course on Research Ethics 2022).
- It is strongly recommended that students choose to complete this component.
- **\*\*Presentation and Paper component**
  - Completed independently or as a group of up to three students.
  - Students may choose to opt out of the *20% Presentation and Paper* component and have the weighting added to their *Final Exam* (weighting becomes 50%).
  - Detail on this component will be given in lecture and posted on eClass.
  - It is strongly recommended that students choose to complete this component.

## **HELPFUL RESOURCES**

### **Take care of yourself:**

We are all dealing with a tremendous amount of stress, anxiety, fear, and uncertainty as a consequence of the COVID-19 pandemic. Please be kind and gentle with yourselves and others during this difficult period of time. There are several online free resources available to help support you. If you need help, the following list of websites is not exhaustive but may be a good place for you to start:

<b>Good2Talk 24-hr Student Crisis Line</b> 1-866-925-5454	<a href="https://good2talk.ca/">https://good2talk.ca/</a>
<b>The Centre</b> at YorkU available 24/7 for sexual violence response, support, and education Email: <a href="mailto:thecentre@yorku.ca">thecentre@yorku.ca</a> 416-736-5211	<a href="https://thecentre.yorku.ca/">https://thecentre.yorku.ca/</a>
<b>Student Counselling, Health, and Well-Being</b> (for services, supports, information)	<a href="https://counselling.students.yorku.ca/">https://counselling.students.yorku.ca/</a>
<b>YU Better Together</b> (COVID-19 responses, requirements, general information)	<a href="https://www.yorku.ca/bettertogether/">https://www.yorku.ca/bettertogether/</a>
<b>York International</b> (for international students, domestic/international students who wish to study abroad)	<a href="https://yorkinternational.yorku.ca/">https://yorkinternational.yorku.ca/</a>

### **Calumet and Stong Colleges' Student Success Programming:**

[Calumet](#) and [Stong](#) Colleges aim to support the success of Faculty of Health students through a variety of **free programs** throughout their university career:

- [Orientation](#) helps new students transition into university, discover campus resources, and establish social and academic networks.
- [Peer Mentoring](#) connects well-trained upper-year students with first year and transfer students to help them transition into university.
- [Course Representative Program](#) supports the academic success and resourcefulness of students in core program courses through in-class announcements.
- [Peer-Assisted Study Sessions \(PASS\)](#) involve upper-level academically successful and well-trained students who facilitate study sessions in courses that are historically challenging.

- [Peer Tutoring](#) offers one-on-one academic support by well-trained Peer Tutors.
  - Please connect with your Course Instructor about any specific academic resources for this class.
- Calumet and Stong Colleges also support students' [Health & Wellness](#), [leadership and professional skills development](#), [student/community engagement and wellbeing](#), [Career Exploration](#), [Indigenous Circle](#), [awards and recognition](#), and [provide opportunities to students to work or volunteer](#).
- For additional resources/information about Calumet and Stong Colleges' Student Success Programs, please consult our websites ([Calumet College](#); [Stong College](#)), email [scchelp@yorku.ca](mailto:scchelp@yorku.ca), and/or follow us on Instagram ([Calumet College](#); [Stong College](#)), Facebook ([Calumet College](#); [Stong College](#)) and [LinkedIn](#).
  - Are you receiving the weekly email (Subject: "Calumet and Stong Colleges - Upcoming events")? If not, please check your Inbox and Junk folders, and if it's not there then please contact [ccscadm@yorku.ca](mailto:ccscadm@yorku.ca), and request to be added to the listserv. Also, make sure to add your 'preferred email' to your [Passport York personal profile](#) to make sure you receive important news and information.

### Computing Related Links:

Below are some useful links that describe computing information, resources and computing-related help for students. The 'Computing for Students Website\*' offers computing help in three main ways: answers to numerous frequently asked questions, live chat with the helpdesk, and a way to submit a ticket to get more detailed help if necessary.

Student Guide to eClass	<a href="https://lthelp.yorku.ca/student-guide-to-eClass">https://lthelp.yorku.ca/student-guide-to-eClass</a>
Computing for Students Website*	<a href="https://student.computing.yorku.ca/">https://student.computing.yorku.ca/</a>
Student Guide to eLearning at York U	<a href="http://elearning-guide.apps01.yorku.ca/">http://elearning-guide.apps01.yorku.ca/</a>
Learning Skills Services	<a href="https://lss.info.yorku.ca/online-learning/">https://lss.info.yorku.ca/online-learning/</a>
Zoom@YorkU main site	<a href="https://yorku.zoom.us/">https://yorku.zoom.us/</a>
Zoom@YorkU User Reference Guide	<a href="https://uit.yorku.ca/faculty-staff-services/wp-content/uploads/sites/3/2012/02/Zoom@YorkU-User-Reference-Guide.pdf">https://uit.yorku.ca/faculty-staff-services/wp-content/uploads/sites/3/2012/02/Zoom@YorkU-User-Reference-Guide.pdf</a>
Zoom@YorkU Quick Start Guide	<a href="https://uit.yorku.ca/wp-content/uploads/sites/5/2020/04/Zoom@YorkU-Quick-Start-New2.pdf">https://uit.yorku.ca/wp-content/uploads/sites/5/2020/04/Zoom@YorkU-Quick-Start-New2.pdf</a>
Zoom@YorkU Best Practices	<a href="https://uit.yorku.ca/wp-content/uploads/sites/5/2020/04/Zoom@YorkU-Best-Practicesv2.pdf">https://uit.yorku.ca/wp-content/uploads/sites/5/2020/04/Zoom@YorkU-Best-Practicesv2.pdf</a>

### Other Important Resources:

If you need help with accessing library held content and/or with studying, see the links below. Please note: The library home page has a tab 'Ask & Services' drop-down menu at the top where you can select 'Ask Us'. Here you can get virtual research help and/or chat online with a librarian (you can also access this through the 'Chat with us' tab on the right hand side of the library main page when).

Library Help	<a href="https://www.library.yorku.ca/web/">https://www.library.yorku.ca/web/</a>
Kinesiology Library Research Guide	<a href="https://researchguides.library.yorku.ca/kinesiology">https://researchguides.library.yorku.ca/kinesiology</a>
Learning Commons (for study help and workshops)	<a href="http://learningcommons.yorku.ca/">http://learningcommons.yorku.ca/</a>

## **POLICIES**

### **Grading:**

The grading scheme for the course conforms to the 9-point grading system used in undergraduate programs at York (e.g., A+ = 9, A = 8, B+ = 7, etc.). Marked materials will bear either a letter grade designation or a corresponding number grade (e.g. A+ = 90 to 100, A = 80 to 90, B+ = 75 to 79, etc.). For a full description of York grading system see the York University Undergraduate Calendar.

The Course Instructor will not 'bump' grades, provide extra/make up assignments, nor will they 'curve' grades for students looking to raise the mark they earn in this course. Students are directed to focus their effort on the multiple evaluative components to earn grades in this course.

It is the student's responsibility to review returned material to ensure that the marks earned are accurate. Any appeal for grade revision (a) must be received by the instructor WITHIN 7 CALENDAR DAYS of the date the work was returned to the class; (b) must be MADE IN WRITING; and (c) must EXPLICITLY STATE why you believe the mark is in error. Grade disputes after this 7 calendar-day period will NOT BE CONSIDERED. Individual questions or sections of an exam or assignment will not be re-marked, however you may request the ENTIRE document be re-marked, where your overall mark may INCREASE, DECREASE, or REMAIN THE SAME.

### **Assignment Submission:**

Proper academic performance depends on students doing their work not only well, but on time. Accordingly, assignments for this course must be received on the due date specified. Hard copy and/or electronic copies of assignments are to be submitted by beginning of class on the day the assignment is due. IF YOU or YOUR EMAIL IS LATE- SO IS YOUR ASSIGNMENT. Materials can be submitted early. Prior to submission, you are advised to review the SPARK Academic Integrity Checklist, and you are required to complete and attach the Statement on Academic Honesty for all submissions (checklist and statement available on eClass).

### **Lateness Penalty for Assignments:**

Assignments received later than the due date will be penalized by 50% for the first calendar day (including weekends) that the assignment is late, followed by 25% for each additional day. The first 50% will be deducted if the assignment is not submitted by the beginning of class, and an additional 25% will be deducted for each 24 hour increment the assignment is late. Exceptions to the lateness penalty for valid unexpected reasons such as significant illness, compassionate grounds (e.g. death of immediate family member), etc., may be entertained by the Course Instructor, but the Course Instructor must be notified within 72 hours after the missed deadline. Alternate arrangements are not automatic, but MAY be made at the discretion of the Course Instructor.

### **Missed Exam:**

If you know in advance that you will not be able to write an exam on the scheduled date you must notify the instructor in writing at least 7 calendar days prior to the scheduled exam date. For unforeseen events, if the Course Instructor is provided acceptable reasons within 72 hours after the missed exam time, a makeup midterm or deferred final MAY be able to be written if offered. Alternate arrangements are not automatic, but MAY be made at the discretion of the Course Instructor. It is unlikely that an alternate or deferred lab test will be available due to the type of test. Any alternate arrangement will be at the discretion of the Course Instructor. No

further extensions or accommodation beyond any initial arrangements will be made for assignments/tests; further extension for the final exam beyond the initial deferred will require students to submit a formal petition to the Faculty.

### **Email Policy:**

All electronic communication with the Course Instructor must be through your York University preferred email address and contain the course code in the subject line (KINE 4472). Do not leave voicemail on the Course Instructor's office telephone line. Use [spine@yorku.ca](mailto:spine@yorku.ca) to communicate with the Course Instructor, or the discussion forum on eClass. Emails are a form of communication and the spelling, grammar, and tone will reflect your communication skills. Write emails using professional language that would be acceptable in a workplace to a manager. Note:

- Students may address the Course Instructor as Dr. Drake (not Miss, Mrs, sir, mam, dude, etc.).
- Include your first and last name, and York student ID# in emails. Emails in inappropriate form/language (ex. text messaging language – c u l8r, disrespectful, etc.) will not be read or returned.
- Depending on the level of clarification and/or number of questions per email (1-2 questions is appropriate), and frequency of emails, at the Course Instructor's discretion, emails may not be answered and a meeting with the student will be arranged and/or content addressed in class.
- Expect that emails will be responded to during work hours, 9 am to 5 pm, Monday through Friday, to ensure equal access is provided for all students in the course. The Course Instructor may also have an assigned email hour, when emails will be responded to immediately (dependent on demand).
- Course Instructor and TA will not respond to emails to answer questions or provide clarification within 24 hours before any deadline or exam time.

### **Student Code of Conduct:**

Students and Instructor are expected to maintain a professional relationship characterized by courtesy and mutual respect and to refrain from actions disruptive to such a relationship. Moreover, it is the responsibility of the Instructor to maintain an appropriate academic atmosphere in the classroom and other academic settings, and the responsibility of the student to cooperate in that endeavour. Further, the Instructor is the best person to decide, in the first instance, whether such an atmosphere is present in the course. You must conduct yourself in accordance with York University's Student Code of Conduct. This includes in class, in lab, and online (eClass, Whatsapp, Facebook, Twitter, other social media, etc.). You are responsible to ensure your behaviour is appropriate. <https://secure.students.yorku.ca/pdf/code-of-student-rights-and-responsibilities-2020-2025-web-english.pdf> The policy and procedures governing disruptive and/or harassing behaviour by students in academic situations is available at: <https://www.yorku.ca/secretariat/policies/policies/disruptive-and-or-harassing-behaviour-in-academic-situations-senate-policy/>

### **Student Code of Rights and Responsibilities:**

This Code is intended to be educative and promote accountability among students toward their peers and other members of the York community. This Code identifies those behaviours that are disruptive to the educational purposes of the University, make the campus less safe, diminish the dignity of individuals and groups, and the enjoyment of their rights. It applies specifically to students because the behaviours of non-student members of the University



community are held to comparable standards of account by provincial laws, University policies and their unions' collective agreements. Information about how to address a concern or a complaint regarding a faculty or staff member can be found at <http://oscr.students.yorku.ca/>

York is committed to civil discourse and the free and open exchange of ideas between community members and as such, nothing in this Code is intended as a method or excuse to suppress peaceful protest, civil debate or other lawful conduct so long as student responsibilities as outlined in Section 4 are being upheld. <http://oscr.students.yorku.ca/csrr>

### **Plagiarism and Academic Integrity:**

Students are expected to maintain the highest standards of academic integrity and honesty and students are subject to the Senate Policy on Academic Honesty. The policy affirms the responsibility of faculty members to foster acceptable standards of academic conduct and the of the student to abide by such standards. This policy covers issues such as cheating, plagiarism, authentic documentation, etc. Breaches of academic integrity will not be tolerated. Link to the Senate Policy on Academic Honesty:

<https://www.yorku.ca/secretariat/policies/policies/academic-honesty-senate-policy-on/>

There is also an academic integrity website with comprehensive information about academic honesty and how to find resources at York to help improve students' research and writing skills, and cope with University life. Students are expected to review the materials on the Academic Integrity website: <http://www.yorku.ca/academicintegrity/>. The Faculty of Health has created five academic honesty animation videos and supplementary information/resources for students that are posted here: <https://www.yorku.ca/health/academic-honesty-3/>

The School of Kinesiology & Health Science takes academic dishonesty very seriously and will abide by York University's Senate Policy on Academic Honesty to adjudicate all cases. Students are expected to make efforts to discourage any and all (un)intentional breaches from their course work. Students are expected to complete their own work without significant assistance, in part or whole, on assignments and exams. Students are expected to act in accordance with the Senate Policy on Academic Honesty and are responsible for familiarizing themselves with these guidelines. Information and detail on how breaches of academic integrity will be handled under the disciplinary proceedings as outlined at these sites:

<https://www.yorku.ca/secretariat/policies/policies/academic-honesty-senate-policy-on/>

<https://www.yorku.ca/unit/vpacad/academic-integrity/>

### **Buying, Selling/Sharing of Course Materials:**

The offering for sale of, buying of, and attempting to sell or buy test banks (banks of test questions and/or answers) or any course specific test questions/answers (even if recreated from memory) is not permitted in the Faculty of Health. Any student found to be doing this may be considered to have breached the Senate Policy on Academic Honesty. In particular, buying and attempting to sell test questions and/or answers may be considered as "Cheating in an attempt to gain an improper advantage in an academic evaluation" (article 2.1.1 from the Senate Policy) and/or "encouraging, enabling or causing others" (article 2.1.10 from the Senate Policy) to cheat. <https://www.yorku.ca/secretariat/policies/policies/academic-honesty-senate-policy-on/>

Lectures, meetings, and correspondence (including emails and eClass posts) are protected under Copyright. Any sharing or distribution of these materials can result in academic penalties, as well as penalties external to the University. You are not permitted to sell, "donate", or buy any of these materials from/to any site or source – you do not have my permission, nor will you get



my permission for such activities. As noted above, selling/sharing/accessing course materials from such internet sites including so-called “study sites” such as CoureHero, StudyStack, and Quizlet is considered a breach of Academic Honesty and carries the associated penalties. Please note, we can trace posts from these sites, including identifying the individuals who provide the content and those who access and/or use the content.

### **Access/Differently Abled Students:**

York is committed to principles of respect, inclusion, and equality of all persons with different abilities across campus. York provides services for students with disabilities (including physical, medical, learning and psychiatric disabilities) needing accommodation related to teaching and evaluation methods/materials. These services are available to students in all Faculties and programs at York.

It is the student's responsibility to register with Student Accessibility Services as early as possible to ensure that appropriate academic accommodation can be provided with advance notice. You are encouraged to schedule a time early in the term to meet with each Course Instructor to discuss your accommodation needs. Please note that registering with accessibility services and discussing your needs with your Course Instructor is necessary to avoid any impediment to receiving the necessary academic accommodations to meet your needs. Requiring accommodation does not relieve students from following the course policies. Additional information can be found at these sites:

- Student Accessibility Services, <https://accessibility.students.yorku.ca/>
- Counselling & Disability Services, <https://counselling.students.yorku.ca/>
- York Accessibility Hub, <http://accessibilityhub.info.yorku.ca/>

### **Religious Observance Accommodation:**

York University is committed to respecting the religious beliefs and practices of all members of the community, and making accommodations for observances of special significance to adherents. Should any of the dates specified in this syllabus for an in-class test pose such a conflict for you, contact the Course Instructor within the first three weeks of class and as soon as possible for the final exam (upon release of final exam schedule). Similarly, should an assignment or test is to be completed in a lab, group project/presentation, etc., scheduled later in the term pose such a conflict, contact the Course Instructor immediately. Please note that to arrange an alternative date or time for an examination scheduled in the formal examination periods (April), students must complete an Examination Accommodation Form, which can be obtained from Student Client Services, Student Services Centre or online:

[http://www.registrar.yorku.ca/pdf/exam\\_accommodation.pdf](http://www.registrar.yorku.ca/pdf/exam_accommodation.pdf)

### **OTHER IMPORTANT COURSE INFORMATION FOR STUDENTS**

All students are expected to familiarize themselves with not only the above information and the information posted on the course eClass site, but also the following information which is available on the Senate Committee on Curriculum & Academic Standards webpage (see Reports, Initiatives, Documents): <https://www.yorku.ca/secretariat/policies/> and <https://secretariat.info.yorku.ca/files/CourseInformationForStudentsAugust2012-.pdf>