York University
Faculty of Health
School of Kinesiology and Health Science

Course: HH/KINE 4455 3.00 – Movement Analysis Laboratory

Course Webpage: eClass (https://eclass.yorku.ca/course/view.php?id=50951)

Term: Winter 2022

Prerequisite/Co-requisite:
AS/SC KINE 3030 - Introduction to the Biomechanical Analysis of Human Movement
AS/SC KINE 3020 - Skilled Performance and Motor Learning
Or 80 Credits and Course Instructor's permission required

Course Instructor:
Dr. Taylor Cleworth
Email: tclewort@yorku.ca
Phone: 416 736 2100 ext. 22467

Teaching Assistant:
Noor Hamam
Email: noorh08@yorku.ca

Times and Location:

Lectures:	Tuesday/Thursday	12h30 – 13h30	Zoom Meeting or CC 318
Laboratories:	Tuesday	13h30 – 15h30	Stong College 101A

Office hours: Please sign up on eClass to set up an appointment. Office hour times will be held during the scheduled time for this course (R 12:30-1:30).

**** Please note that this is a course that partially depends on remote teaching and learning. Remote/in-person delivery will follow the University's directives based on public health guidelines. All times in the course outline or elsewhere related to this course are in local Toronto time. ****

Course Objectives:
This course focuses on the theory and practice of methods for analyzing the mechanics and control of movement. Methods include analysis of biological signals such as electromyography and evoked potentials, as well as techniques for both kinematic and kinetic analysis of movement.

Course Outcomes:
By the end of this course, students will:

- develop research skills to assess and understand human movement
- gain an understanding of multiple measurement techniques with direct clinical implications
- develop oral and written communication skills for health science

Course Text / Readings:
Readings will be assigned during the course and available on eClass.

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 (this is not an exhaustive list) may be a good place for you to start:

https://good2talk.ca/ https://counselling.students.yorku.ca/ https://www.yorku.ca/bettertogether/ https://yorkinternational.yorku.ca/

Useful links describing computing information, resources and help for students:

Student Guide to eClass	https://lthelp.yorku.ca/student-guide-to-eClass
Computing for Students Website	https://student.computing.yorku.ca/
Student Guide to eLearning at York University	http://elearning-guide.apps01.yorku.ca/
Learning Skills Services	https://www.yorku.ca/scld/learning-skills/
Zoom@YorkU User Reference Guide	http://staff.computing.yorku.ca/wp-content/uploads/sites/3/2012/02/Zoom@YorkU-User-Reference-Guide.pdf
Zoom@YorkU Best Practices	https://staff.computing.yorku.ca/wp-content/uploads/sites/3/2020/03/Zoom@YorkU-Best-Practicesv2.pdf

Students are 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.

Organization of the Course

KINE 4455 involves a blend of asynchronous (participate on your own and at times you choose) and synchronous (students are expected to attend lectures and participate at specific times in live virtual/online or in-person sessions) modes of teaching. This course will be delivered remotely for the first 3 weeks (at minimum).

Lectures: Lecture material will be posted on eClass, and students are responsible for attending all lectures. The official "class time" is Tuesday/Thursday from 12:30 – 1:30 pm. Lectures will be synchronous.

Laboratories: Laboratory materials, including outlines and assignments, will be posted on eClass. Students are responsible for completing all laboratories. This course will use LabChart for all lab-based activities. LabChart 8 can be accessed for free through MyApps (see eClass for instructions) and on Lab computers (when in-person resumes). Weekly lab assignments are to be submitted via eClass prior to the scheduled lecture time of the following week (Tuesday at 12:30; see schedule below and eClass for details). There will be a Lab Practical exam near the end of the term (see schedule below and eClass for details).

Course Evaluation

The final grade for the course will be based on the following items weighted as indicated:

Lab Reports (8 x 5%)	=	40%
Research Project stages (members, topic, outline)	=	5%
Research Project presentation with write up	=	20%
Lab Practical Exam (Lab Exam)	=	15%
Final Examination (Lecture Exam)	=	20%

Final course grades may be adjusted to conform to Program or Faculty grades distribution profiles.

Lecture, Laboratory and Assignment Schedule (subject to change) – KINE 4455, 2022

Date	Topic #	Lecture	Laboratory
Week of Jan. 10	1	Introduction to Course, Data, and Measurement	LabChart, Equipment, and Data Introduction (Report due Jan 18 - 5%)
Week of Jan. 17	2	Signal Basics: Amplitude and Calibration	Calibration (Report due Jan 25 - 5%)
Week of Jan. 24	3	Frequency Domain	Fatigue (Report due Feb 1 - 5%)
Week of Jan. 31	4	Filtering and Artifacts	EMG & movement (Report due Feb 8 - 5%)
Week of Feb. 7	5	Kinematics	Kin & Diff (Report due Feb 15 - 5%)
Week of Feb. 14	6	Kinetics 1	Forces & Moments (Report due Mar 1 - 5%) Research Project ID due – 1%
Feb. 19-25	READING WEEK		
Week of Feb. 28	7	Kinetics 2	Force Response (Report due Mar 8 - 5%) Research Project topics due – 2%
Week of Mar. 7	8	Spinal Reflex	Spinal Reflex (Report due Mar 15 - 5%) Research Project outline due – 2%
Week of Mar. 14	9	Mini experiment lecture	Group Mini experiment (prep/start)
Week of Mar. 21	10	Mini experiment write-up/pres.	Group Mini experiment (collection/analysis)
Week of Mar. 28	11	Mini experiment presentations (20% with write-up) – All Groups (during Lecture and Lab time)	
Week of Apr. 4	12	LAB PRACTICAL EXAM (15%)	
Apr. 12-29		Final Exam 20% (Date TBD) - Exam period	

The last date to drop a course without receiving a grade is March 18, 2022.

Technical requirements for taking the course:

Three platforms will be used, (eClass, LabChart, and Zoom) through which students will interact with the course materials, the course instructor, teaching assistant, as well as with one another. Therefore, a computer or smart device with a camera and microphone is required to complete the course.

Please review this syllabus carefully to determine how the course content will be delivered, how office hours will be conducted and how assignments will be submitted.

Students must make every effort to arrange adequate internet connection, especially for tests (if online). If a student has any concerns about their internet connection, they should seek all available options for writing their exams/tests/quizzes in a location with a stable internet connection. In the event that a student is not confident they can access a reliable internet connection, they should communicate their concerns to the course instructors well in advance of the test.

Students shall note the following:

- 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.

Technology requirements and FAQs for eClass can be found **here** - https://lthelp.yorku.ca/95440-student-faq

Internet connection and speed: There are online tests, such as Speedtest, that can be run to assess your internet connection and speed.

Communication: Several modes of communication with the course instructors, teaching assistants and other students have been set up to maximize communication and a sense of community.

Communicating with Instructors: The instructor can be contacted through email (tclewort@yorku.ca). If you have questions related to course content, or general course questions please post them in the discussion forums on eClass. Instructors will also be available for office hours each week via Zoom (at least until Jan. 31)– please sign up for a time slot on eClass. When emailing, please INCLUDE YOUR FIRST AND LAST NAME AND STUDENT ID. Emails are a form of communication and the spelling, grammar and tone will reflect your communication skills. Emails should be written using professional language that would be acceptable in a workplace to a manager. Emails that include inappropriate form/language (i.e. "Hey", "c u l8tr", etc.) or without student name and ID will not be read or returned. Students may address the course instructor as Dr. Cleworth.

Communicating with your lab TA: To contact your TA, you can either post in the Laboratory Discussion Forum on eClass, or email noorh08@yorku.ca and include your name, student ID, and course code.

Communicating with other students: You are highly encouraged to communicate with your fellow students through the discussion forums on eClass. You are welcome to post course-related questions, as well as study tips or helpful websites/apps.

Grading, Assignment Submission, Lateness Penalties and Missed Tests
Exams/Tests: (Synchronous mode)
The Lab Practical Exam and Final Exam MUST be written at the date and time noted above. Students must make themselves available at the time scheduled for class. All times noted are local Toronto times. The Lab Practical Exam and Final Exam are closed book exams which means no external aids (notes, books, calculators, or other reference materials) are permitted.

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, C+ = 5, etc.). Assignments and tests 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 - http://calendars.registrar.yorku.ca/2010-2011/academic/index.htm

Re-Evaluation Policy:
During the term: Any requests for remarking of assignments or in-class tests must be received by the course instructor within 7 days of the item's mark being posted, along with the "Evaluation item remark request" form, which can be found on the course website. Please note that your mark may be ***raised, lowered, or confirmed.***

Re-appraisal of a final grade: Any requests for re-appraisal of a final mark must be received by the course instructors within 7 days of the final grade posting, along with the "Evaluation item remark request" form, which can be found on the course website. Please note that your mark may be ***raised, lowered, or confirmed.*** If the result is still unsatisfactory, requests for a reappraisal of the final grade for a completed course are the responsibility of the Undergraduate Director. You must submit in writing a formal request for a **final grade reappraisal** to the KINE undergraduate Office. **You cannot submit 'extra' work following the posting of a mark in order to raise a grade.** For further details: https://myacademicrecord.students.yorku.ca/grade-reappraisal-policy

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 for the assignment. Assignments are to be handed in online on eClass, instructions for submission will be described in class and available on eClass. The course instructor will also make announcements on eClass to inform students regarding submissions process.

Lateness Penalty: Assignments received later than the due date will be penalized (5% per day the assignment is late). Exceptions to the lateness penalty for valid reasons such as illness, compassionate grounds, etc., may be entertained by the course instructor.

Missed Tests: If you miss a lecture test for a legitimate reason (i.e. illness), you are expected to email the instructor (tclewort@yorku.ca) and attach the Faculty of Health Missed Test Documentation (https://www.yorku.ca/health/academic-resources/missed-test-form/) within 7 calendar days of the test to be considered for a deferred test. No further supporting documentation is required.

If you begin a test and it is interrupted due to technology issues (i.e. lost internet connection), email the instructors (tclewort@yorku.ca) IMMEDIATELY. On a case-by-case basis, the instructor will either re-open the test or assign a deferred test.

If you know IN ADVANCE that you will be missing a test, please notify the instructors (tclewort@yorku.ca) at least 7 calendar days ahead of the test and attach relevant documentation, so that appropriate accommodations can be made.

Academic Honesty and Integrity

In this course, we strive to maintain academic integrity to the highest extent possible. Please familiarize yourself with the meaning of academic integrity by completing SPARK's Academic Integrity module at the beginning of the course. Breaches of academic integrity range from cheating (i.e., the improper crediting of another's work, the representation of another's ideas as your own, etc.) to aiding and abetting (helping someone else to cheat). All breaches in this course will be reported to the appropriate university authorities, and can be punishable according to the Senate Policy on Academic Honesty.

The School of Kinesiology and Health Science takes academic dishonesty very seriously and will abide by York University's Senate Policy of 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 assistance, in part or whole, on assignments and tests. Students are expected to act in accordance with the Senate Policy of Academic Honesty and are responsible for familiarizing themselves with these guidelines. Breaches of academic integrity will be handled under the disciplinary proceedings as outlined in: https://www.yorku.ca/secretariat/policies/policies/academic-honesty-senate-policy-on/.

E-proctoring:
This course may require the use of online proctoring for examinations. The instructor may use an online proctoring service to deliver the exam(s), which would be administered through the Learning Management System (e.g. eClass, Canvas, etc.). Students are required to have access to minimum technology requirements to complete examinations. If an online proctoring service is used, students will need to become familiar with it at least five days before exam(s). For technology requirements, Frequently Asked Questions (FAQs) and details about the online proctoring service visit – (https://www.yorku.ca/bold/remoteproctoring/). Students are required to share any IT accommodation needs with the instructor as soon as they are able.

Lecture and laboratory tests are to be taken by the student and no one else. It is the expectation of the instructors that these are closed-book tests. Websites should not be accessed while you are taking a test – doing so may result in the immediate closing of the test and instructors will not re-open a test in this situation.

Accessibility:
York University provides services for students with accessibility concerns (including physical, medical, learning, and psychiatric), who require accommodation related to teaching and evaluation methods/materials. 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 email a copy of your accommodation letter to your instructors as early as possible in the semester, and to schedule a time early in the term to meet with your instructor to discuss your accommodation needs. Failure to make these arrangements may jeopardize your opportunity to receive academic accommodations. Requiring accommodation does not relieve students from following course policies. Student Accessibility Services can be accessed here: https://accessibility.students.yorku.ca/.

Important Information for Students:

All students are expected to familiarize themselves with the following information, available on the Senate Committee on Academic Standards, Curriculum & Pedagogy website.

- Senate Policy on Academic Honesty and the Academic Integrity Website
- Ethics Review Process for research involving human participants
- Course requirement accommodation for students with disabilities, including physical, medical, systemic, learning and psychiatric disabilities
- Student Conduct Standards
- Religious Observance Accommodation