

KNES 375- Tests and Measurements in Kinesiology Fall 2022

Faculty of Kinesiology

Approved by WB: July 2022

Course Information

Instructor Name: John Holash Classroom #: KNB 126

Phone Number: 403-220-7655 Day(s) Class Meets: Tuesday & Thursday

Email Address: rjholash@ucalgary.ca Time Class Meets: 8:00-8:50AM

Office #: Course Website: D2L

Office Hours: Tuesday 9-11:00 AM Labs: Wednesday & Friday

Labs:

 Lab 1
 Wednesday
 8:00am - 9:50am

 Lab 2
 Wednesday
 12:00pm - 1:50pm

 Lab 3
 Friday
 12:00pm - 1:50pm

 Lab 4
 Friday
 3:00pm - 4:50pm

See table below for further information

Teaching Assistant Name: Teaching Assistant Email:

Gabriele Marinari <u>Gabriele.marinari@ucalgary.ca</u>

Jenny Zhang Mu.zhang@ucalgary.ca

Course Description:

Establishment of tests, criteria for selection of tests, measurement devices used to evaluate physiological status, human growth, and skill levels in physical activity programs.

The goals of this course are:

- To provide an understanding of the process of measuring and evaluating human physical abilities and attributes, as they relate to physical activity
- To provide experiential learning in a lab and field setting via physiological testing of multiple subjects.
- To provide students a foundation of the Canadian Society of Exercise Physiologists baseline tests and measures required for accreditation of the Certified Personal Trainer certification.
- To strengthen statistical knowledge and mathematical skills within a Kinesiology environment

Prerequisites:

KNES 203 & KNES 213 and admission to the Faculty of Kinesiology

Course Objectives:

- To provide experiential learning in a lab and field setting via the physiological testing of many subjects.
- To gain an understanding of basic inferential statistics, and concurrently, to strengthen calculation and mathematical skills.
- To learn the guidelines for appropriate selection and proper administration of tests, and to learn how to apply these measurement concepts to specific areas of physical activity.
- To enhance critical thinking, problem-solving, abstract reasoning and creating thinking through interactive lectures, group work in class and multiple lab assignments.
- To develop written communication skills necessary for scientific inquiry.

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Course Content:

Unit	Content	Reference Material	Lecture Dates	
	Introduction course overview Inclusion of CURE	Lecture		
	Historical Review	Lecture & Chapter 1	06 Sept	
	Need for Measurements & Evaluations	Lecture & Chapter 1		
	Health & Wellness	Lecture & Chapter 1		
	The Surgeon General Report	Lecture & Chapter 1	08 Sept	
1	Employment Testing	Lecture & Chapter 1	06 Зері	
	Elite Athlete Testing	Lecture & Chapter 1		
	Definitions & Tests			
	Measurements	Lecture & Chapter 1 & 2	12 15 Cont	
	Evaluation	Lecture & Chapter 1 & 2	13-15 Sept	
	Specific Purposes for Measurement and Evaluation			
	Discussion of CURE		20-Sept	
2	Statistics Overview	Lecture & Chapter 3	20-22 Sept	
3	Correlation	Lecture & Chapter 3	27-29 Sept	
4	Regression Analysis	Lecture & Chapter 3	04 Oct	
Q1	Quiz 1	Units 1-2 Online D2L 24hr	06 Oct	
	Inferential Statistics			
	Sampling Theory & Null Hypothesis		11-130ct	
5	t-Tests	Lecture & Chapter 4	11 15000	
,	One-Way ANOVA	Lecture & chapter 4		
	One-way ANOVA with Repeated Measures		18-20 Oct	
	Two-Way ANOVA, Factorial		18-20 OCI	
6	Tests Characteristics -Reliability-Validity	Lecture & Chapter 4 & 5	25-27 Oct	
7	Physical Activity, Exercise & Fitness	Lecture & Chapter 6	01 Nov	
Q2	Quiz 2	Units 3-5 Online D2L 24hr	03 Nov	
	Term Break		07-11 Nov	
8	Test Battery	Lecture & Chapters 11, 12 ,13	15 Nov	
9	Body Composition	Lecture & Chapter 8	17 Nov	
10	Cardiovascular Fitness	Lecture & Chapter 7	22 Nov	
11	Evaluation of Musculoskeletal Fitness	Lecture & Chapters 9	24 Nov	
12	Muscular Endurance & Strength	Lecture & Chapters 9	29 Nov	
Q3	Quiz 3	Units 6-9 Online D2L 24hr	01 Dec	
	Power – Flexibility – Review of course	Lecture & Chapters 9	06 Dec	

Lab Schedule

<u>Lab Group 1: Wed 8:00am – 9:50am</u>

07-Sep 21-Sep 05-Oct 19-Oct 02-Nov 23-Nov

<u>Lab Group 2: Wed 12:00pm - 1:50pm</u>

07-Sep 21-Sep 05-Oct 19-Oct 02-Nov 23-Nov

<u>Lab Group 3: Friday 12:00pm – 1:50pm</u>

09-Sep 23-Sep 07-Oct 21-Oct 04-Nov 25-Nov

<u>Lab Group 4: Friday 3:00pm – 4:50pm</u>

09-Sep 23-Sep 07-Oct 21-Oct 04-Nov 25-Nov

Labs:

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Lab Introduction & Orientation	Dates:	07 Sept-> 09 Sept
	Location:	KNA 152
Skinfold In-service Note: All groups administering the body composition lab are REQUIRED to attend this in-service. Sign-up must be done when signing up for the	Dates:	19-Sept 11am-1pm
lab you will be running/administering. Only consider presenting if you can accommodate this time!	Location:	KNA 128
Lab 1: Skinfolds and Stats	Dates:	21-Sept-> 23-Sept
	Location:	KNB 152
Lab 2: Heart Rate & Blood Pressure Measurements, & mCAFT with environmental conditions	Dates:	05 Oct-> 07 Oct
	Location:	KNB 87/88
Lob 2. CCER RATULtost hottom. (otworeth mouses holones floribility.)	Dates:	19 Oct-> 21 Oct
Lab 3: CSEP PATH test battery (strength, power, balance, flexibility)	Location:	KNA124/KNB150
Lab 4: CLIDE David and Cardiavascular Fitness / Museulaskalatal Testina	Dates:	02 Nov-> 04 Nov
Lab 4: CURE Developed: Cardiovascular Fitness / Musculoskeletal Testing	Location:	KNA 17
Lab E. CLIDE Drocontations: Novel tost battom. Comparison to	Dates:	23 Nov- 25 Nov
Lab 5: CURE Presentations: Novel test battery - Comparison to Standardized Test as a measure of health / fitness	Location:	KNA-87/88 or KNA160

Required Reading Materials:

Baumgartner, T. A., Jackson, A. S., Mahar, M. T., & Rowe, D. A. (2016). Measurement for Evaluation in Kinesiology (9th ed.). Burlington, MA: Jones & Bartlett Publishers.

Recommended Reading Materials: (Optional)

CSEP. (2020). Canadian Society for Exercise Physiology- Physical Activity Training for Health Resource Manual. In *CSEP-PATH*.

Nieman, D.C. (2011). Exercise Testing and Prescription: A Health-Related Approach. 7th Edition (or 6th, 5th, 4th) Mountain View, California: Mayfield Publishing Comp.

Vincent, W.J., Weir, J.P. (2012). Statistics for Kinesiology 4th Edition. Champagne, Illinois: Human Kinetics

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Assessment Components/Expectations

Grading Scale:

Letter	Percent	Grade Point Value	Description
A+	96.0 -100	4.00	Outstanding
Α	92.0 - 95.9	4.00	Excellent – Superior performance, showing comprehensive understanding of subject matter
A-	88.0 - 91.9	3.70	
B+	84.0 - 87.9	3.30	
В	80.0 - 83.9	3.00	Good – Clearly above average performance with knowledge of subject matter generally complete.
B-	76.0 - 79.9	2.70	
C+	72.0 - 75.9	2.30	
С	68.0-71.9	2.00	Satisfactory – Basic understanding of the subject matter. Grade point average below 2.00 is not sufficient for promotion.
C-	64.0 - 67.9	1.70	Minimum grade required if needed as a prerequisite course.
D+	60.0- 63.9	1.30	
D	56.0 -59.9	1.00	Minimal pass – Marginal performance, generally insufficient preparation for subsequent courses in the same subject.
F	0.0-55.9	0	Fail – Unsatisfactory performance of failure to meet course requirements.

Evaluation of Course Content:

Description	Assignments Fall Due (Lab date)	% Value
Quiz 1 Online D2L	06-Oct	10
Quiz 2 Online D2L	03-Nov	10
Quiz 3 Online D2L	01-Dec	10
Orientation Assignment	21-23 Sept	2
Lab -1	28-29 Sept	5
Pre-lab 4 ideas	04-Oct	1
Lab -2	19-21 Oct	5
Pre-lab 4 votes	13-Oct	2
Lab -3	02-04 Nov	5
Lab -4	23-25 Nov	5
Lab -5	23-25 Nov - Presentation	5
Lab presentations Group	Day of lab	6
Final Exam	10-21 Dec-Set by office of Registrar	34

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**Special Note for Final Lab Assignment: There are two prelab assignments for lab 4, the first will be suggests for an outcome measure, for each lab group (football fitness, Sparta race readiness...), the second will be 3-4 test / measurements, that can be used to assess that outcome. Students will develop and submit suggestions for these which will be voted on in class and used to develop the CURE lab 4. Marks for this are based on authentic participation.

End of Module Quizzes: End of module quizzes are individual assessments and to be completed as such. Quizzes will be one-way assessments (no going backward to view previous questions) with question order randomized. End of Module quizzes are cumulative and will contain a small number of questions from previous modules and will be available on D2L. The instructor will be available on the day of the quiz during regularly scheduled class times to answer any questions that might arise during the quiz. Students will have 40 minutes (plus 50% extra time for any technical issues) to write the quiz in D2L with a total time of 60 minutes. Students will have a 24-hour window in which to write the quiz. Once a student starts the quiz, they have 60 minutes to complete it. The 24-hour window will begin at 12:00 am the day of the quiz and close at 11:59 pm the same day. All quiz attempts will close at 11:59 pm the day of the quiz regardless of the start time.

Special accommodations will be provided as required, please see section on academic accommodation below for further information. If an unsurmountable technical difficulty is encountered during a quiz you will need to contact the instructor immediately so a solution can be formulated.

Midterm Exam Policy:

The Faculty of Kinesiology policy is that all students are expected to write midterm exams on the dates listed on the course outline. Special accommodation may be granted by the instructor in **exceptional circumstances only**, which includes illness, participation in athletic events (varsity, national or international), domestic affliction, and religious conviction. It is the student's responsibility to supply proper documentation and/or notification **prior to** the originally scheduled midterm to support their circumstance. Personal travel plans and arrangements are not valid reasons for requesting a special accommodation for a midterm exam.

Final Exam:

The date of the final exam will be scheduled by the registrar (Dec 10-21) and you will be allowed 2 hours to complete it. Equations and unit conversions will be provided, along with scrap paper for calculations. Students may bring a simple calculator to the final. The final exam will be cumulative with 50% of the focus on the last three units 10 - 11 & 12.

Late Policy:

Late Penalty – Lab reports are due 2 weeks (with an exception to Lab 5, which will be due in 6 days) following the completion of the in-class lab. These reports will need to be submitted to the related D2L dropbox by 8:00 am the day of your lab. Any reports submitted after the above stated times will receive a 10% deduction per week including holidays (e.g., if a lab is due at the beginning of a 8:00am lab on Thurs, and instead is submitted at 8:01am on the next Thursday, there will be a 20% deduction). Any potential problems with meeting deadlines should be discussed with the instructor **prior** to the due date.

Additional Course Information:

Laboratory Requirements

- Required Equipment: Students will be required to have access to a computer with a web camera, computer will also need to be able to run JASP software (freeware no charge) jasp-stats.org (Windows, Mac or Linux versions available). Stable and high-speed network connection for their computer.
- 2. Attendance is mandatory. You cannot submit a lab report if you are absent from the lab. Students must attend the lab in which they are registered. If students need to change <u>one</u> lab session due to extenuating circumstances, they must request permission **in writing** to John Holash a minimum of 2 working days prior to the lab in question.
- 3. Completed PAR-Q+s (Physical Activity Readiness Questionnaires) and consent forms are due on <u>Tuesday, September 20th</u>. These two forms are posted on D2L prior to the course commencement. If you have a positive PAR-Q+, you are required to provide a physician's approval for participation in the lab portion of this course; therefore, please speak directly to John Holash **before or on September 20**th. Since lab attendance is mandatory for KNES 375, if you have a

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- positive PAR-Q+ all subsequent documentation is required by <u>Tuesday September 27th</u>. Submission of late documents will result in a 3% deduction in your lab mark unless there are extenuating circumstances. These two forms are posted on D2L prior to the course commencement.
- 4. Data analysis for labs held in the gym must be completed in KNB 152A or on your own personal computer outside of the scheduled lab time. KNB 152A will be open from 8:30am 4:30pm Monday through Friday. However, this room is often booked for classes, so please check their schedule(s) (posted on the door) well in advance of your lab due date. The JASP program is free to use and download and is available for all operating systems at jasp-stats.org. As such, it is highly recommended that you download this software on your own personal computer.
- 5. There is a total of 5 lab reports required: Orientation assignments 2%, Lab #1, #2, #3, & #5 are worth 5%; Lab #4 is worth 8% (1+2+5). The remaining 6% is allocated to the "Group Presentation", making the lab portion of this course worth a total of 36% of your final grade.

General Information

- 1. All examinations have a combination of multiple choice, calculation, short answer, and long answer questions.
- 2. University approved standard calculators will be allowed during all examinations; The quizzes are intended to be a quiz of your relevant knowledge and not a test of your ability to use a search engine. Students may use the resources available to them as guides but will not be granted extra time. Communication between students during and exam session is prohibited.
- 3. Quiz review periods: Module quizzes will be open and available for student review for 24 hours the day after the exam occurs, so you can view your D2L quiz and understand where you made any mistakes.
- 4. For volunteers serving as subjects an informed consent form will be given to you prior to all physiological testing. Its purpose is to give you the basic idea of what the physiological testing entails and what your participation will involve. The informed consent must be signed by you and witnessed before you can serve as a subject in this class.
- 5. Physical limitations: The demands of this activity can be harmful to a student with physical limitations. It is the student's responsibility to inform the instructor of any physical limitations (including a recent positive PAR-Q or PAR-Q+ or GAQ) prior to participating in any activity class. Appropriate activity modifications will be made to accommodate these students.
- 6. Written assignments must be in APA format and will be graded for spelling, grammar, and sentence structure.
- 7. Please be aware that partner and/or group assignments result in the same grade for all. It is your responsibility to be fully aware of your partner's contribution to the assignment and to take responsibility for the whole assignment. If you are unclear on what this means, please see the instructor. In addition, any problems with partners (or group members) must be discussed as soon as possible with the instructor.

Contacting the Instructor:

Students requiring assistance are encouraged to speak with their instructor during class or office hours. If you wish to meet with the instructor outside of office hours, please phone or email the instructor to make an appointment.

Email, while commonly used, does limit the effectiveness of communications and may not be the best way for instructors to answer student questions. Therefore, the instructor may request a telephone call or personal meeting. Your instructor will inform you as to their expectations about emails.

Students' Union:

The Faculty of Kinesiology representative is Jessie Dinh and can be reached at kinesrep@su.ucalgary.ca.

Supplementary Course Information

Plagiarism/Cheating/Other Academic Misconduct

(see Calendar https://www.ucalgary.ca/pubs/calendar/current/k.html):

A **single** offence of cheating, plagiarism or other academic misconduct is a serious act that will not be tolerated in the Faculty of Kinesiology. Penalties for such acts will be determined by the Dean and may result in a failing grade, probation,

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suspension, or expulsion. Any student who is uncertain if an action falls into this category should consult the instructor and/or the Calendar in advance.

Academic Accommodation Policy and Information on Student Accessibility Services:

It is the student's responsibility to request academic accommodation. If you are a student with a documented disability or medical condition who may require academic accommodation and have not registered with Student Accessibility Services, please contact their office at 403-220-8237. You are also required to discuss your needs with your instructor preferably within the first fourteen (14) days of this course. Students who have not registered with Student Accessibility Services **are not** eligible for formal academic accommodation. For further information, go to http://www.ucalgary.ca/access/.

ucalgary.ca/student-services/access/prospective-students/academic-accommodations.

https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Accommodation-for-Students-with-Disabilities-Procedure.pdf

Accommodations on Protected Grounds other than Disability:

Students who require an accommodation in relation to their coursework or to fulfil requirements for an undergraduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to Jodie McGill, Manager of Student Advising at idmcgill@ucalgary.ca. Students who require an accommodation unrelated to their coursework or the requirements for an undergraduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to the Vice-Provost (Student Experience). For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/.

Intellectual Property:

Course materials created by instructors (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may NOT be reproduced, redistributed or copied without the explicit consent of the instructor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

Freedom Of Information and Protection Of Privacy Policy:

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary. The University of Calgary is under the jurisdiction of the Provincial Freedom of Information and Protection of Privacy (FOIP) Act. Please refer to the website for further details. https://www.ucalgary.ca/legal-services/access-information-privacy

Copyright Legislation

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (https://www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright-policy.pdf) and requirements of the copyright act (https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html) to ensure they are aware of the consequences of unauthorised sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy https://www.ucalgary.ca/pubs/calendar/current/k.html.

Internet and Electronic Communication Device Information:

Any surfing of the Internet during lectures that is not directly related to the class discussion is distracting and strictly forbidden. Additionally, the use of any electronic devices (i.e., cellular phones) for emailing, texting, etc., is strictly prohibited. Please turn **OFF** your phone before the beginning of each lecture unless permitted. Instructors have the authority, at the discretion of the Dean to require that specific course assignments, term papers and academic exercises be submitted in an electronic format.

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https://www.ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-electronic-resources-and-information-policy

Library and Resources in the Library:

Visit the University of Calgary's library at http://library.ucalgary.ca/.

Wellness and Mental Health Resources

The University of Calgary recognizes the pivotal role that mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive support when needed. We encourage you to explore the excellent mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through Student Wellness Services (Room 370 MacEwan Student Centre,

https://www.ucalgary.ca/wellness-services/services/mental-health-services) and the Campus Mental Health Strategy (http://www.ucalgary.ca/mentalhealth/).

Sexual Violence Policy

The University recognizes that all members of the University Community should be able to learn, work, teach and live in an environment where they are free from harassment, discrimination, and violence. The University of Calgary's sexual violence policy guides us in how we respond to incidents of sexual violence, including supports available to those who have experienced or witnessed sexual violence, or those who are alleged to have committed sexual violence. It provides clear response procedures and timelines, defines complex concepts, and addresses incidents that occur off-campus in certain circumstances. Please see the policy available at https://www.ucalgary.ca/legal-services/university-policies-procedures/sexual-and-gender-based-violence-policy

Student Success

The Student Success Centre provides services and programs to ensure students can make the most of their time at the University of Calgary. Our advisors, learning support staff, and writing support staff assist students in enhancing their skills and achieving their academic goals. They provide tailored learning support and advising programs, as well as one-on-one services, free of charge to all undergraduate and graduate students. For more information visit: https://www.ucalgary.ca/student-services/student-success

Student Ombuds Office

The Student Ombuds Office supports and provides a safe, neutral space for students. For more information, please visit www.ucalgary.ca/ombuds/ or email ombuds@ucalgary.ca

Student Union (SU) Information

The SU Vice-President Academic can be reached at (403) 220-3911 or suvpaca@ucalgary.ca; Information about the SU, including elected Faculty Representatives, can be found here: https://www.su.ucalgary.ca

Graduate Students' Association (GSA) Information

The GSA Vice-President Academic can be reached at (403) 220-5997 or gsa.vpa@ucalgary.ca; Information about the GSA can be found here: https://gsa.ucalgary.ca

Emergency Evacuation/Assembly Points

Assembly points for emergencies have been identified across campus. Assembly points are designed to establish a location for information updates from the emergency responders to the evacuees; from the evacuated population to the emergency responders. For more information, see the University of Calgary's Emergency Management website: https://www.ucalgary.ca/risk/emergency-management/evac-drills-assembly-points/assembly-points

Safewalk

Campus security will escort individuals, day or night, anywhere on campus (including McMahon Stadium, Health Sciences Centre, Student Family Housing, the Alberta Children's Hospital and the University LRT station). Call 403-220-5333 or visit

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