



### Land Acknowledgement

We respectfully acknowledge the Syilx Okanagan Nation and their peoples, in whose traditional, ancestral, unceded territory UBC Okanagan is situated.

## HES 211: Exercise Testing

**Faculty:** Faculty of Health and Social Development

**Department:** Health and Exercise Sciences

**Instructor:** Dr H. Connon (They/them)

**Primary contact method:** Canvas message

**Instructor(s) Email:** [hannah.connon@ubc.ca](mailto:hannah.connon@ubc.ca)

**Office phone:** 250-8078478

**Zoom PMI:** 316 936 2392 (if you go to this room I will get an email notification and if I'm available I will join)

**Duration:** Term 1 Winter 2023

**Delivery Modality:** In-Person

**Course Location:** FIP204

**Course Days:** Tue/Thu

**Class Hours:** 1400-1530

**Office hours:** - Tuesday 0900-1000

Office hours are an invitation to come and informally chat about course related content, assessments, or general areas of interest. They are a safe and informal place, and it is not expected that you come with pre-planned or well thought-out questions ahead of time.

### Lab schedule

Lab	Monday	Lab	Tuesday	Lab	Wednesday
02	1000-1200	06	1000-1200	08	0800-1000
03	1200-1400	07	1200-1400	09	1000-1200
04	1400-1600			10	1200-1400
				11	1400-1600

**Other Instructional Staff**

1	Shawna Cook, co-instructor (laboratory lead) - shawna.cook@ubc.ca
2	Jodie Koep, co-instructor - jodie.koep@ubc.ca
3	Liam Stewart, co-instructor - liam.stewart@ubc.ca

**Course Description**

The theory, practice and analysis of safe and effective health, fitness, physiological and lifestyle assessments, including the design, implementation and analysis of standard protocols.

**Course Format**

This course combines both lecture and laboratory sessions to achieve the learning objectives. The lectures will focus on the key exercise testing concepts and principles. Pre-screening, risk assessment, biometrics, musculoskeletal fitness assessment, cardiorespiratory fitness assessment, data analysis, and results interpretation will be examined. Laboratory activities will provide students with competency development in assessment administration, communication, interpretation, and safety protocols.

**Learning Outcomes**

*Upon successful completion of this course, students will be able to...*

1. Describe the guiding principles of exercise testing
2. Describe the physiological underpinning and typical considerations for common health, fitness, lifestyle, psychosocial, and physiological assessments
3. Apply knowledge of exercise testing principles to unique contexts/individuals to determine the appropriateness of assessment modalities
4. Demonstrate the use of evidence-based health, exercise, physiological and lifestyle assessment modalities (e.g. questionnaires, cardiac, pulmonary function, metabolic, musculoskeletal, functional movement)
5. Analyze assessment data, interpret results, and communicate findings to relevant stakeholder
6. Demonstrate safety procedures including test termination criteria, contraindications, and emergency protocols

### **Assessments of Learning**

Assessment	Date	% of grade	Learning outcomes
Participation – lab quizzes	Throughout	10% (pass/fail)	LO4
Midterms x 2	Oct 9 <sup>th</sup> & Nov 20 <sup>th</sup>	30%	LO1 LO2 LO3 LO4 LO5 LO6
Pre-screening video	Week of Sep 25 <sup>th</sup>	10%	LO4 LO6
Practical exam I MSK Testing	Week of Oct 23 <sup>rd</sup>	10%	LO4 LO6
Practical exam II Exercise Monitoring	Week of Dec 4 <sup>th</sup>	15%	LO4 LO6
Practical exam III Indirect Testing	Final exam period	15%	LO4 LO6
Case study results interpretation video	Final exam period	10%	LO5

### **Course assessment details**

#### Participation in pre lab quizzes – 10%

Each lab will have a ~15min interactive video pre-lab quiz. The purpose of the video is to prepare you for the upcoming lab activities and ensure you are familiar with the required resources. Questions will be integrated into each video in various formats (multiple choice, true/false, reflection etc). Completion of all 8 videos is required to be awarded the 10%.

Some labs will also have a short post-lab quiz with a small number of multiple-choice questions and/or a reflection. Completion of the post-lab quiz is also required for the 10%.

**Pre/post lab quizzes will be set to unlimited attempts. Although they are not graded, a bonus x% will be available at the end of the semester to those who score 100% on the quizzes.**

#### Midterms (30%)

Two multiple choice midterms will assess your comprehension of assessments, underlying physiology, and best practice. Midterm I assesses modules 1 and 2 – prescreening and MSK assessment, whilst midterm II assesses module 3 – CRF assessment.

#### Pre-screening video assessment (10%)

Students will be assigned a case study and provided all required resources. With a peer (or other individual) taking the role of the client, the student will record a 10min pre-screening and initial intake session. Rubric will be provided.

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Practical exams I (10%) II (15%) and III (15%)

To meet learning outcome four, students will demonstrate relevant skills in a series of short practical assessments throughout the assessment. The assessments will each focus on an isolated skill set and a detailed rubric will be provided. Practical assessments I and II will occur in lab time (see schedule) and III will occur in the final exam period. Practical assessment I focuses on informed consent and the execution of a single test of MSK or functional fitness. Practical assessment II focuses on exercise monitoring and specifically exercising blood pressure. Practical assessment III focuses on managing a multistage indirect test, including basic data collection and timing management.

Case study interpretation video (10%)

You will be assigned a case study and provided with some results/data from a testing session. You will have to analyze the data ahead of time, and then video a 10min session where you interpret the results to a client (friend, peer, roommate etc). Rubric will be provided.

**Course Schedule**

Week	Week start	Class #	Topic	Lab
1	Sep 5th	1	Intro, principles of testing	No Lab
1		2	Health screening, informed consent	
2	Sep 11th	3	Interview	Prescreen
2		4	Biometrics	
3	Sep 18th	5	MSK physiology review, strength testing	Interview & biometrics testing
3		6	MSK endurance testing	
4	Sep 25th	7	MSK power testing	MSK assessment I
4		8	MSK mobility, flexibility testing	
5	Oct 2nd	9	MSK functional testing	Open lab
5		10	MSK review	
6	Oct 9th	Midterm I	Midterm I	Open lab
6		11	Cardiorespiratory fitness - physiology review	
7	Oct 16th	12	CRF assessment fundamentals	MSK II functional assessment
7		13	CRF Electrocardiogram (ECG)	
8	Oct 23rd	14	CRF indirect assessment I	

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8		15	CRF indirect assessment II	Practical exam I: MSK assessment
9	Oct 30th	16	CRF direct assessment I	Monitoring: ECG & exercising BP
9		17	CRF direct assessment II	
10	Nov 6th	18	CRF occupational testing	CRF I Indirect assessment
10		19	CRF review	
11	Nov 12th	Reading Week		Open lab
11				
12	Nov 20th	Midterm II	Midterm II	CRF II Direct assessment
12		20	Emergency management, direct test analysis	
13	Nov 27th	21	Results interpretation & communication skills	Open lab
13		22	Open for lab practice	
14	Dec 4th	23	Case studies	Practical exam 2: Monitoring
14		24	Case studies	
Final Exam Period	Dec 10-21		Practical exam 3: Indirect testing	

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### **Late policy**

Flexible late policy - each student receives a bank of 72 hours that can be used for late quizzes or assignment deadlines without penalty. Once the 72 hours is used up standard late policy applies: 10% per day for a maximum of 3 days after which the grade will be zero.

### **Missed exam policy**

There will be no make-ups for missed exams. Please submit a self-declaration form to the undergraduate coordinator for an accommodation. Once approved a make-up will be scheduled.

### **Missed Activity Policy:**

Lab attendance is mandatory. Each missed lab carries a penalty of 10%. Only sickness or family emergencies will be accommodated. If you need to miss lab for an exceptional circumstance please contact the course instructor.

### **Passing/Grading Criteria**

A minimum grade of 50% on both lab and lecture components is required to pass the course. A result of less than 50% in either component will result in a final grade of 49% and an F grade.

### **Learning Materials**

ACSM's Fitness Assessment Manual - available in the bookstore (comes with e-book)

CSEP PATH Manual - previously required for HES100 (comes with e-book)

Slides will be posted on Canvas prior to class

Additional resources will be posted on Canvas

Supplementary papers will be posted on Canvas

## **Other Course Policies**

### **Academic Integrity**

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. **For example, incidences of plagiarism or cheating usually result in a failing grade or mark of zero on the assignment or in the course.** Careful records are kept to monitor and prevent recidivism.

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A more detailed description of academic integrity, including the University's policies and procedures, may be found in the Academic Calendar at:

<http://www.calendar.ubc.ca/okanagan/index.cfm?tree=3,54,111,0>

### **Final Examinations**

You can find the [Senate-approved term and examination dates here](#). Except in the case of examination clashes and hardships (three or more formal examinations scheduled within a 27-hour period) or unforeseen events, students will be permitted to apply for out-of-time final examinations only if they are representing the University, the province, or the country in a competition or performance; serving in the Canadian military; observing a religious rite; working to support themselves or their family; or caring for a family member. Unforeseen events include (but may not be limited to) the following: ill health or other personal challenges that arise during a term and changes in the requirements of an ongoing job.

Further information on Academic Concession can be found under Policies and Regulation in the Okanagan Academic Calendar <http://www.calendar.ubc.ca/okanagan/index.cfm?tree=3,48,0,0>

### **Grading Practices**

Faculties, departments, and schools reserve the right to scale grades in order to maintain equity among sections and conformity to University, faculty, department, or school norms. Students should therefore note that an unofficial grade given by an instructor might be changed by the faculty, department, or school. Grades are not official until they appear on a student's academic record.

<http://www.calendar.ubc.ca/okanagan/index.cfm?tree=3,41,90,1014>

## **Resources to Support Student Success:**

### **UBC Okanagan Disability Resource Centre**

The DRC facilitates disability-related accommodations and programming initiatives to remove barriers for students with disabilities and ongoing medical conditions. If you require academic accommodations to achieve the objectives of a course please contact the DRC at:

**UNC 215**      250.807.8053

Email: [drc.questions@ubc.ca](mailto:drc.questions@ubc.ca)

Web: [www.students.ok.ubc.ca/drc](http://www.students.ok.ubc.ca/drc)

### **UBC Okanagan Equity and Inclusion Office**

Through leadership, vision, and collaborative action, the Equity & Inclusion Office (EIO) develops action strategies in support of efforts to embed equity and inclusion in the daily operations across the campus. The EIO provides education and training from cultivating respectful, inclusive spaces and communities to understanding unconscious/implicit bias and its operation within in campus environments. UBC Policy 3



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prohibits discrimination and harassment on the basis of BC's Human Rights Code. If you require assistance related to an issue of equity, educational programs, discrimination or harassment please contact the EIO.

**UNC 325H** 250.807.9291

Email: [equity.ubco@ubc.ca](mailto:equity.ubco@ubc.ca)

Web: [www.equity.ok.ubc.ca](http://www.equity.ok.ubc.ca)

### **Student Wellness**

At UBC Okanagan health services to students are provided by Student Wellness. Nurses, physicians and counsellors provide health care and counselling related to physical health, emotional/mental health and sexual/reproductive health concerns. As well, health promotion, education and research activities are provided to the campus community. If you require assistance with your health, please contact Student Wellness for more information or to book an appointment.

**UNC 337** 250.807.9270

Email: [healthwellness.okanagan@ubc.ca](mailto:healthwellness.okanagan@ubc.ca)

Web: [www.students.ok.ubc.ca/health-wellness](http://www.students.ok.ubc.ca/health-wellness)

### **Office of the Ombudperson**

The Office of the Ombudperson for Students is an independent, confidential and impartial resource to ensure students are treated fairly. The Ombuds Office helps students navigate campus-related fairness concerns. They work with UBC community members individually and at the systemic level to ensure students are treated fairly and can learn, work and live in a fair, equitable and respectful environment. Ombuds helps students gain clarity on UBC policies and procedures, explore options, identify next steps, recommend resources, plan strategies and receive objective feedback to promote constructive problem solving. If you require assistance, please feel free to reach out for more information or to arrange an appointment.

**UNC 328** 250.807.9818

Email: [ombuds.office.ok@ubc.ca](mailto:ombuds.office.ok@ubc.ca)

Web: [www.ombudsoffice.ubc.ca](http://www.ombudsoffice.ubc.ca)

### **Student Learning Hub**

The Student Learning Hub is your go-to resource for free math, science, writing, and language learning support. The Hub welcomes undergraduate students from all disciplines and year levels to access a range of supports that include **tutoring in math, sciences, languages, and writing, as well as help with study skills and learning strategies**. Students are encouraged to visit often and early to build the skills, strategies and behaviors that are essential to being a confident and independent learner. For more information, please visit the Hub's website.

**LIB 237** 250.807.8491

Email: [learning.hub@ubc.ca](mailto:learning.hub@ubc.ca)

Web: [www.students.ok.ubc.ca/slh](http://www.students.ok.ubc.ca/slh)

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**The Global Engagement Office**

The Global Engagement Office provides advising and resources to assist International students in navigating immigration, health insurance, and settlement matters, as well as opportunities for intercultural learning, and resources for Go Global experiences available to all UBC Okanagan students, and more.

Come and see us – we are here to help! You may also contact [geo.ubco@ubc.ca](mailto:geo.ubco@ubc.ca)

**Safewalk**

*Don't want to walk alone at night? Not too sure how to get somewhere on campus? Call Safewalk at **250-807-8076**.*

*For more information, see: [www.security.ok.ubc.ca](http://www.security.ok.ubc.ca)*