



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

Communication preference: canvas message

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 2024

Delivery Modality: In-Person

Course Location: ASC140

Course Days: Wed/Fri

Class Hours: 0930-1100

Office hours: Wednesday 11-12

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 - it is not expected that you come with pre-planned or well-thought-out questions ahead of time.

Lab schedule

Lab	Tuesday	Lab	Wednesday	Lab	Thursday	Lab	Friday
L01	0800-1000	L05	1200-1400	L07	0800-1000	L11	1200-1400
L02	1000-1200	L06	1400-1600	08	1000-1200	L12	1400-1600
L03	1200-1400			09	1200-1400		
L04	1400-1600			10	1400-1600		

Open lab time: Monday's 930-1030 UCH109 – sign up required

Teaching assistants

Lab instruction:

Nina Geerts

Tasha Reiter

Liam Stewart

Grading:

Nathan Adams

Cori Calkins

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 invested parties
6. Demonstrate safety procedures including test termination criteria, contraindications, and emergency protocols

Assessments of Learning**Lab component – 60%**

Assessment	Date	% of grade	Learning outcomes
Participation – lab quizzes	Throughout	10%	LO4
Competency checklist	Throughout	10%	LO2 LO4 LO5 LO6
Pre-screening video	Week of Sep 23 rd	10%	LO4 LO6
Practical exam I MSK Testing	Week of Oct 14 th	10%	LO4 LO6
Practical exam II Indirect Testing	Final exam period	20%	LO4 LO6

Lecture component – 40%

Assessment	Date	% of grade	Learning outcomes
Midterms x 2	Oct 9 th & Nov 20 th	30%	LO1 LO2 LO3 LO4 LO5 LO6
Final take home: Case study video	Final exam period	10%	LO5

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.

Course assessment details - Lab component**Participation in 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 as multiple choice and true/false. Quizzes are not graded and the pro-rated % will be awarded for completion.

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 optional and will help you reflect on your learning as well as prepare for assessment.

Pre/post lab quizzes will be set to unlimited attempts, you may reattempt as many times as desired to better your knowledge.

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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.

Competency checklist (10%)

To achieve learning outcome four, students will demonstrate a checklist of competencies throughout the semester as and when they feel prepared to do so. Skills will be demonstrated to the TA or course instructor who will determine if the competency has been met. Students can attempt the competency multiple times. Some restrictions exist on the timeframe. The checklist contains 6 items worth 2% each. Complete 5 for the full 10%, with a bonus of 2% available for doing all 6.

Practical exams I (10%) II (20%) – 30%

To achieve learning outcome four, students will demonstrate relevant skills in two practical assessments. The assessments will each focus on an isolated skill set and a detailed rubric will be provided. Practical assessments I will occur in lab time (see schedule) and II 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 managing a multistage indirect test, including exercise monitoring and exercising blood pressure, data collection, and timing management.

Course assessment details – lecture component

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. This course has no final exam.

Final take home: Case study video

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 2 nd	1	Intro, principles of testing	No Lab
1		2	Health screening, informed consent	
2	Sep 9 th	3	Interview	1 - Prescreen
2		4	Biometrics & communication	
3	Sep 16 th	5	MSK physiology review, strength testing	2. Interview & biometrics
3		6	MSK endurance testing	
4	Sep 23 rd	7	MSK power testing	3. MSK assessment I – CSEP/ACSM battery
4		8	MSK mobility, flexibility testing	
5	Sep 30 th	9	MSK functional testing	4. MSK assessment II – functional testing
5		10	REVIEW QUIZ	
6	Oct 7 th	Midterm I	Midterm I	Open lab
6		11	GUEST LECTURE	
7	Oct 14 th	12	Cardiorespiratory fitness - physiology review	Competency assessment 1 – MSK assessment

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7		13	CRF assessment fundamentals	
8	Oct 21 st	14	CRF Electrocardiogram (ECG)	5. MSK III 1RM
8		15	CRF indirect assessment I	
9	Oct 28 th	16	CRF indirect assessment II	6. Monitoring: ECG & exercising BP
9		17	CRF direct assessment I	
10	Nov 4 th	18	CRF direct assessment II	7. Cardiorespiratory fitness testing I
10		19	REVIEW QUIZ	
11	Nov 11 th	Reading Week		Open lab
11				
12	Nov 18 th	20	Concentration info session	8. Cardiorespiratory fitness testing II RX/monitoring
12			Midterm II	
13	Nov 25 th	21	Emergency management, direct test analysis	9. Cardiorespiratory fitness testing III Direct/monitoring
13		22	Results interpretation & communication skills	
14	Dec 2 nd	23	GUEST LECTURE	Open lab
14		24	FREE	
Final Exam Period	Dec 9-20		Practical exam II: Indirect testing + exercise monitoring	

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. Does not apply to competency assessments. Once the 72 hours is used up the 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**

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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.

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

Web: www.students.ok.ubc.ca/drc

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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 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

Web: 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

Web: 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

Web: 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**

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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

Web: www.students.ok.ubc.ca/slh

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

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