THE UNIVERSITY OF BRITISH COLUMBIA

**Land Acknowledgement**
We respectfully acknowledge the Syilx Okanagan Nation and their peoples, in whose traditional, ancestral, unceded territory UBC Okanagan is situated.
**HES 350: Clinical Assessment**

**Faculty:** Faculty of Health and Social Development
**Department:** Health and Exercise Sciences
**Instructor(s):** Shawna Cook (she/her)
**Primary contact method:** Canvas Message
**Instructor(s) Email:** shawna.cook@ubc.ca
**Duration:** Term 1 Fall 2026
**Delivery Modality:** In-Person
**Course Location:** UCHB 109
**Course Days:** Tuesday's & Thursday's
**Class Hours:** 11am – 2pm
**Open Lab Hours**: Select Wednesday's 10:30am – 11:45am
**Office hours:** Wednesday's 11:00am – 12:30pm – **ART 160**
Office hours are meant for you to come and chat about course content, assignments, or anything I can help you with. I am here to help as much as I can. If you are unavailable during scheduled office hours, please contact me, and we can arrange another time.

**Course Description**
The development of key technical skills in conducting clinical evaluations by exercise practitioners, including client interviews and communication, physical examination, pharmacological considerations, health and fitness measures and appropriate data recording and documentation.

**Course Format**
The course combines lecture and laboratory components to achieve learning objectives. Lectures will focus on the operational elements involved in clinical evaluations, health assessments and exercise testing and provide a framework for the determination of safe and effective assessment and exercise programming strategies for healthy individuals and those living with chronic conditions. Labs will provide experiential learning opportunities for students to learn and demonstrate key allied health assessments and the management of client health and safety.

**Course Overview, Content and Objectives**
The course is designed to introduce students to common clinical assessments for healthy individuals and those living with chronic conditions. This course will provide students a fundamental understanding of the rationale and analysis of clinical assessments and will guide student learning in safe and effective assessment conduct. Protocols and technological considerations of assessments will be introduced and students will gain expertise in measuring clinical data. Students will be furthermore introduced and gain

proficiency in using equipment, protocols and effectively assessing client health status. The learning objectives are to:

- Lead students through the clinical evaluation process that is performed by medical and allied health professionals and using the results of test data to inform exercise testing and prescription.
- Assist students in developing respectful and effective communication with clients and learn to effectively conduct client history protocols and generate necessary reports.
- Provide opportunities to learn and become proficient in effective clinical assessment, monitoring and emergency scene management.

**Learning Outcomes**

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

1. Explain the elements of a clinical evaluation conducted by medical and allied health professionals and the measurements that may be necessary to determine whether a patient is able to exercise safely.
2. Demonstrate effective communication techniques and develop comprehensive patient histories that identify and describe information and results relevant to health care professionals, assessment strategies and exercise program prescription.
3. Explain and demonstrate effective assessments and monitoring conducted by clinical exercise professionals, including patient interviews, health and fitness screening and clinical assessments
4. Assess patient and program needs and goals based on health and exercise history, motivation level, physical activity readiness and clinical findings.
5. Demonstrate leadership and teamwork in the safe and effective application of first-aid and emergency scene management

**Assessments of Learning**

| | Assessment | Date | % of grade | Learning outcome(s) |
|---|---|---|---|---|
| Lecture Component | | | 45% | |
| | Midterms x 2 | Oct.22nd & Nov. 24th | 30% | LO1, LO2, LO3, LO4, LO5 |
| | ECG Interpretation | Nov. 17th | 10% | LO1, LO2, LO3, LO4, LO5 |
| | Professional Engagement and Preparation | Ongoing | 5% | |
| Lab Component | | | 55% | |
| | Rounds Presentations x 3 | Sept 17th, Oct. 29th, Dec. 1st | 15% | LO1, LO2, LO3, LO4 |
| | Clinical Interview Encounters | Beginning Oct. 8th | 10% | LO2, LO3, LO4 |
| | Baseline Testing & ECG Practical Exam | Beginning Dec.8th | 30% | LO1, LO2, LO3, 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 – Lecture Component

**Midterms x 2 — 30% (15% each)**

Two midterm examinations will assess students' understanding and application of course concepts. Questions will emphasize the interpretation and application of knowledge to clinical situations rather than isolated factual recall.

**Midterm 1** will focus primarily on the early components of the initial clinical encounter, including chart and referral preparation, relevant medical and diagnostic information, medications and risk factors, patient interviewing and communication, psychosocial and behavioral considerations, and foundational resting measures.

**Midterm 2** will focus primarily on baseline clinical assessment, interpretation of clinical findings, resting ECG concepts, clinical integration, patient safety, and appropriate decision-making within the scope of the Clinical Exercise Physiologist.

Although each examination will emphasize material taught during its respective portion of the course, students will be expected to integrate foundational concepts introduced earlier in the term.

**ECG Interpretation Assessment — 10%**

Students will individually demonstrate a systematic approach to the interpretation of resting ECGs. The assessment will require students to identify and interpret ECG features at the level expected in HES 350 and to consider ECG findings within the broader clinical context.

Students may be asked to determine rate and rhythm, evaluate relevant waveform and interval characteristics, recognize common rhythm and conduction abnormalities, distinguish artefact from clinically meaningful findings, and identify findings that warrant further clarification or action. Emphasis will be placed not only on identifying ECG findings, but also on explaining their clinical significance in relation to information such as patient symptoms, medications, hemodynamic status and other available clinical information.

**Professional Engagement and Preparation — 5%**

Professional engagement will be assessed throughout the term based on observable behaviors that contribute to safe and effective clinical learning.

This includes arriving prepared for assigned cases, activities and required pre-class learning; participating appropriately in laboratory and deliberate-practice activities; contributing constructively to peer learning and feedback; demonstrating respectful and professional communication; using clinical equipment safely and appropriately; following infection-control and laboratory procedures; and demonstrating responsiveness to feedback.

This component is intended to assess professional preparation and participation in the learning process, rather than personality or simple attendance.

# Course Assessment Details – Lab Component

**Clinical Reasoning Rounds x 3 — 15% (5% each)**

Clinical Reasoning Rounds are three low-stakes assessments distributed across the term that provide students with repeated opportunities to demonstrate the development of clinical reasoning.

Students will be presented with clinical information appropriate to their stage of learning and asked to identify and prioritize relevant findings, recognize missing or conflicting information, determine what requires clarification, and explain what they would do next and why. Students will be expected to communicate and defend their reasoning within the scope of practice of a Clinical Exercise Physiologist.

The complexity of the Rounds will increase across the semester:

**Round 1 – Chart Preparation & Interview Planning:** Students will analyze available chart/referral information, identify what matters and what is missing, anticipate relevant concerns, and determine priorities for the upcoming patient interview and assessment.

**Round 2 – Integrated Findings, Interpretation & Next Steps:** Students will integrate information from the chart, interview and baseline assessment, identify inconsistencies or findings requiring verification, prioritize relevant clinical concerns, and determine appropriate next steps.

**Round 3 – Full Case Synthesis & Plan Defense:** Students will integrate information across the initial clinical encounter and develop and defend an appropriate clinical plan. Greater emphasis will be placed on prioritization, clinical judgment, safety, scope of practice, and communication of the rationale underlying clinical decisions.

Rounds will include individual oral responses within a small-group case-conference format. Individual accountability and the quality of the student's clinical reasoning, rather than presentation polish, will form the basis of assessment.

**Clinical Interview Encounter + Video Coding/Self-Analysis — 10%**

Students will complete an individual clinical interview designed to approximate an authentic initial patient encounter. The interview will be observed, graded, and video recorded by the instructor.

Using available patient information, students will conduct a patient-centered interview that demonstrates appropriate introduction and consent, rapport and professional communication, relevant symptom and health-history inquiry, medication reconciliation, exploration of health behaviors and risk factors, and identification of patient goals, barriers and other information relevant to subsequent clinical assessment.

Students will be expected to respond appropriately to patient cues and use communication strategies introduced in the course, including motivational interviewing principles, plain language and teach-back where appropriate. The encounter should conclude with an appropriate summary and transition to the next stage of clinical assessment.

Following the encounter, students will review their recording and complete a concise coding/self-analysis activity using the communication framework introduced in the course. Students will identify

observable communication behaviors, areas of strength, and one or two specific targets for continued development.

The primary evidence for this assessment is the student's performance during the clinical encounter; the video analysis is intended to support deliberate reflection and development rather than serve as a substantial additional written assignment.

**Final Integrated Practical Examination — 30%**

The Final Integrated Practical Examination is the culminating assessment of HES 350. Students will individually demonstrate their ability to conduct and interpret key components of an initial Clinical Exercise Physiology assessment within a realistic clinical scenario.

Students may be required to review relevant patient information; perform selected resting and baseline assessments; acquire and/or interpret a resting ECG; recognize relevant clinical findings; determine whether findings should be accepted, repeated, clarified or escalated; and communicate appropriate next steps within CEP scope of practice.

The practical examination will assess both technical performance and clinical reasoning. Students will therefore be expected not only to perform assessment procedures safely and accurately, but also to interpret the information obtained, recognize clinically important findings, explain the rationale for their decisions, communicate appropriately with the patient, and identify when consultation, referral or emergency action is required.

The examination is cumulative and represents integration of the initial clinical assessment process developed throughout the course.

**Course Schedule – this course is designed to be adaptable to the learning and needs of the students. This course schedule is a framework only and may be altered during the term as required.**

Throughout HES 350, students will progressively develop and integrate clinical reasoning, patient safety, and ECG interpretation within the initial clinical assessment process. Learning activities will emphasize not only *what* to assess, but how to interpret findings, respond appropriately, and communicate clinical decisions.

| Week / Date | Tuesday | Thursday |
|---|---|---|
| **Week 1** Sept. 8 & 10 | **The Initial CEP Encounter** • Course orientation • Initial clinical assessment • Introduction to clinical reasoning • Chart/referral review | **Chart & Referral Analysis** • Medical terminology • Diagnoses, investigations & medications • Identifying relevant and missing information • Chart-to-interview planning |
| **Week 2** Sept. 15 & 17 | **Clinical Information, Risk & CEP Practice** • Clinical information & risk factors • CEP scope and competence • Safety/readiness • Consultation & referral | **CLINICAL REASONING ROUND 1 – 5%** *Chart Preparation & Interview Planning* |

| | | |
|---|---|---|
| **Week 3** Sept. 22 & 24 | **The Clinical Interview I** • Patient-centred interviewing • Consent • Medical & symptom history • Medications • Patient goals & concerns | **The Clinical Interview II + Resting Measures** • Interview integration • HR & respiratory rate • Manual BP • Introduction to resting ECG |
| **Week 4** Sept. 29 & Oct. 1 | **Motivational Interviewing & Behaviour Change** • Readiness & barriers • Goal development • Risk-factor conversations | **Psychosocial Factors, Health Literacy & Interview Integration** • Psychosocial considerations • Health literacy & teach-back • Risk-factor counselling • Interview practice |
| **Week 5** Oct. 6 & 8 | **Interview Consolidation & Clinical Application** • Chart-to-interview cases • Medications • Documentation • Interview preparation | **CLINICAL INTERVIEW ENCOUNTERS – 10%** *Group 1* |
| **Week 6** Oct. 13 & 15 | **Baseline Measures + Clinical Interview Encounters** *Group 2* • HR & respiratory rate • BP & $SpO_2$ • Peripheral pulses & edema • Anthropometrics | **Guest Lecture & Peer Coaching** • Clinical assessment • 4th-Year CEP workshop |
| **Week 7** Oct. 20 & 22 | **Blood Glucose + Clinical Interview Encounters** *Group 3* • Capillary blood glucose • Glucose-response laboratory • Interpretation & clinical application | **THEORY MIDTERM 1 – 15%** *Chart Preparation, Interview & Foundational Clinical Assessment* |
| **Week 8** Oct. 27 & 29 | **Movement/Functional Screening & Clinical Integration** • Baseline movement assessment • Interpretation • Integrating clinical findings | **CLINICAL REASONING ROUND 2 – 5%** *Integrated Findings, Interpretation & Next Steps* |
| **Week 9** Nov. 3 & 5 | **Resting ECG Interpretation I** • Systematic interpretation • Rate & rhythm • Sinus/atrial rhythms • Ectopy & artefact | **Resting ECG Interpretation II** • AV blocks & conduction • ST-T findings • Clinical significance • Appropriate response |
| **Reading Week** Nov. 10 & 12 | **NO CLASS** | **NO CLASS** |
| **Week 10** Nov. 17 & 19 | **ECG INTERPRETATION ASSESSMENT – 10%** | **Clinical Integration & Decision-Making** • Integrating chart, interview, baseline measures & ECG • Risk/readiness • Scope • Consultation/referral • Documentation & handover |
| **Week 11** Nov. 24 & 26 | **THEORY MIDTERM 2 – 15%** *Baseline Assessment, Interpretation & Clinical Decision-Making* | **Emergency Response in the CEP Clinical Environment** • Recognition & response • Patient deterioration • Stop/modify/escalate decisions • Communication & handover |
| **Week 12** Dec. 1 & 3 | **CLINICAL REASONING ROUND 3 – 5%** *Full Case Synthesis & Plan Defence* | **Final Practical Preparation** • Integrated encounters • ECG & baseline assessment • Clinical reasoning • Safety scenarios |
| **Week 13** Dec. 8 + TBD | **FINAL INTEGRATED PRACTICAL EXAMINATION – 30%** | *Additional practical examination appointments as required* |

**Late policy**
Flexible late policy - each student receives a bank of 72 hours that can be used for written components of assignments. Reminder this is 72 hours total, not per activity. Once the 72 hours have been depleted, the standard late policy applies: 10% per day for a maximum of 3 days after which the grade will be zero.

**Missed exam policy**
If you are unable to attend an exam, 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. 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.

**Required Materials**

1. American College of Sports Medicine. (2025). *ACSM's Guidelines for Exercise Testing and Prescription* (12th ed.). Wolters Kluwer.
2. Dunbar, C. C., & Saul, B. I. (2022). *ECG Interpretation for the Clinical Exercise Physiologist* (2nd ed.). Wolters Kluwer.

Here is the link to the bookstore for the ECG text:
https://the.bookstore.ubc.ca/CourseSearch/?course%5B%5D=UBCO,2026W1,HES,HES350,001

**Recommended Materials**

1. Ehrman, J. K., Gordon, P. M., Visich, P. S., & Keteyian, S. J. (Eds.). (2023). *Clinical Exercise Physiology: Exercise Management for Chronic Diseases and Special Populations* (5th ed.). Human Kinetics.

Lecture Slides will be posted on Canvas prior to class
Additional resources will be posted on Canvas

## Other Course Policies

**UBC Values**
UBC creates an exceptional learning environment that fosters global citizenship, advances a civil and sustainable society, and supports outstanding research to serve the people of British Columbia, Canada, and the world. UBC's core values are excellence, integrity, respect, academic freedom, and accountability.

### Policies and Regulations

Visit UBC Okanagan's Academic Calendar for a list of campus-wide regulations and policies, as well as term dates and deadlines.

**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 may result in a mark of zero on the assignment or exam and more serious consequences may apply if the matter is referred to the President's Advisory Committee on Student Discipline. Careful records are kept in order to monitor and prevent recurrences.

A more detailed description of academic integrity, including the University's policies and procedures, may be found in the Academic Calendar at http://okanagan.students.ubc.ca/calendar/index.cfm?tree=3,54,111,0.

**GenAI usage**

The expectations for GenAI use in this course are designed to support your learning. Some activities require you to develop skills through your own practice and process. For these activities, the use of GenAI tools to complete or substantially generate submitted work is not permitted because the learning comes from engaging directly in the process.

Other uses of technology or learning supports may be appropriate where identified. If you are unsure whether a particular use of GenAI is consistent with course expectations, please ask before submitting your work.

**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

**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 Ombudsperson 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 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

**Walk-In Well-Being Clinic**

The Walk-In Well-Being clinic offers no-fee, brief, single-session psychological services. Sessions are led by a doctoral student in clinical psychology and supervised by a registered psychologist (UBCO Faculty member). Clinicians can provide support with stress management, sleep, self-care, depression, anxiety, interpersonal issues, substance misuse, coping with academic demands/stressors, and provide options for connecting to additional resources. Virtual or in-person sessions are available at the UBCO Psychology Clinic, located in ASC 167 with or without an appointment, on Tuesdays and Thursdays between 10 am and 3 pm from September to June, excluding campus closures.

**UNC 337** 250.807.8421 (ext. 1)
Email: ipc.ok@ubc.ca
Web: https://psych.ok.ubc.ca/psychology-clinic/walk-in-wellness/

**Student Supports, Resources & Campus Services**

Visit the Student Support and Resources page to find one-on-one help or explore resources to support your experience at UBC Okanagan, as well as many other campus services available to all students.

**Advising Options**

Visit the Advising Options page to find out about the variety of advising options available to students including but not limited to academic, career and accessibility.

*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