



ORIGINAL COURSE IMPLEMENTATION DATE: January 2001  
 REVISED COURSE IMPLEMENTATION DATE: September 2018  
 COURSE TO BE REVIEWED: (six years after UEC approval) March 2024  
 Course outline form version: 09/15/14

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

<b>Course Code and Number:</b> KIN 462	<b>Number of Credits:</b> 4 <a href="#">Course credit policy (105)</a>																
<b>Course Full Title:</b> Advanced Exercise Testing and Prescription <b>Course Short Title (if title exceeds 30 characters):</b> Adv Exerc Test & Presc																	
<b>Faculty:</b> Faculty of Health Sciences	<b>Department (or program if no department):</b> Kinesiology																
<b>Calendar Description:</b> Integrates knowledge of exercise physiology and laboratory testing techniques with the practical application of cardiorespiratory fitness, musculoskeletal fitness, body composition, testing, analysis, and prescription.  Note: Students with credit for KPE 462 cannot take this course for further credit.																	
<b>Prerequisites (or NONE):</b>	KIN 362 (formerly KPE 362).																
<b>Corequisites (if applicable, or NONE):</b>	NONE																
<b>Pre/corequisites (if applicable, or NONE):</b>	NONE																
<b>Equivalent Courses (cannot be taken for additional credit)</b> Former course code/number: <b>KPE 462</b> Cross-listed with: Equivalent course(s): <b>KPE 462</b> <i>Note: Equivalent course(s) should be included in the calendar description by way of a note that students with credit for the equivalent course(s) cannot take this course for further credit.</i>	<b>Transfer Credit</b> Transfer credit already exists: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  Transfer credit requested (OReg to submit to BCCAT): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (if yes, fill in transfer credit form)  Resubmit revised outline for articulation: <input type="checkbox"/> Yes <input type="checkbox"/> No To find out how this course transfers, see <a href="http://bctransferguide.ca">bctransferguide.ca</a> .																
<b>Total Hours: 75</b> <b>Typical structure of instructional hours:</b> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr><td>Lecture hours</td><td style="text-align: center;">33</td></tr> <tr><td>Seminars/tutorials/workshops</td><td></td></tr> <tr><td>Laboratory hours</td><td style="text-align: center;">30</td></tr> <tr><td>Field experience hours</td><td></td></tr> <tr><td>Experiential (practicum, internship, etc.)</td><td></td></tr> <tr><td>Online learning activities</td><td style="text-align: center;">4</td></tr> <tr><td>Other contact hours: calculations</td><td style="text-align: center;">8</td></tr> <tr><td style="text-align: right;"><b>Total</b></td><td style="text-align: center;"><b>75</b></td></tr> </table>	Lecture hours	33	Seminars/tutorials/workshops		Laboratory hours	30	Field experience hours		Experiential (practicum, internship, etc.)		Online learning activities	4	Other contact hours: calculations	8	<b>Total</b>	<b>75</b>	<b>Special Topics</b> Will the course be offered with different topics? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  If yes, different lettered courses may be taken for credit: <input type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit  <i>Note: The specific topic will be recorded when offered.</i>
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Other contact hours: calculations	8																
<b>Total</b>	<b>75</b>																
<b>Maximum enrolment (for information only):</b> 36																	
<b>Expected frequency of course offerings (every semester, annually, every other year, etc.):</b> once annually																	
<b>Department / Program Head or Director:</b> Alastair Hodges	<b>Date approved:</b> October 2017																
<b>Faculty Council approval</b>	<b>Date approved:</b> October 2017																
<b>Campus-Wide Consultation (CWC)</b>	<b>Date of posting:</b> November 24, 2017																
<b>Dean/Associate VP:</b> Joanne MacLean	<b>Date approved:</b> October 2017																
<b>Undergraduate Education Committee (UEC) approval</b>	<b>Date of meeting:</b> March 23, 2018																

**Learning Outcomes**

Upon successful completion of this course, students will be able ;

1. Explain the role of pre exercise screening.
2. Conduct appropriate tests to measure aerobic and anaerobic fitness.
3. Conduct appropriate tests to measure the functional capacity of the musculoskeletal systems (strength, power, endurance, flexibility).
4. Conduct appropriate tests to measure the body composition.
5. Interpret results from fitness assessment and base exercise prescription upon results.
6. Discuss health related behaviours and their impact on test results.
7. Discuss behavioural change and the benefit on health.
8. Apply training principles in the development of aerobic, anaerobic, muscular strength and endurance, flexibility and weight loss programs.

**Prior Learning Assessment and Recognition (PLAR)**

Yes     No, PLAR cannot be awarded for this course because

**Typical Instructional Methods (guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion)**

Lecture, small group discussions, case studies, laboratory sessions

**Grading system:** Letter Grades:  Credit/No Credit:  Labs to be scheduled independent of lecture hours: Yes  No

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

**Typical Text(s) and Resource Materials (if more space is required, download Supplemental Texts and Resource Materials form)**

Author (surname, initials)	Title (article, book, journal, etc.)	Current ed.	Publisher	Year
1. Heyward	Advanced Fitness Assessment and Exercise Prescription	<input checked="" type="checkbox"/>	Human Kinetics	
2. CSEP	Professional Fitness and Lifestyle Consultant	<input checked="" type="checkbox"/>	Canadian Society for Exercise Physiology	
3. NSCA	Essentials of Strength and Conditioning	<input checked="" type="checkbox"/>	Human Kinetics	
4.		<input type="checkbox"/>		

**Required Additional Supplies and Materials (software, hardware, tools, specialized clothing, etc.)****Typical Evaluation Methods and Weighting**

Final exam:	40%	Assignments:	%	Midterm exam:	20%	Practicum:	%
Quizzes/tests:	%	Lab work:	30%	Field experience:	%	Shop work:	%
Case Study:	10%	Other:	%	Other:	%	Total:	100%

**Details (if necessary):**

**Typical Course Content and Topics**

1. **Health and Fitness Trends**
  - 1.1 Surgeon General's Report
  - 1.2 Promoting lifelong physical activity
2. **Physical Fitness**
  - 2.1 Components of fitness
3. **Testing Concepts**
  - 3.1 Purpose of each of the following
    - 3.1.1 medical/health screening
    - 3.1.2 cardiovascular screening
    - 3.1.3 informed consent
  - 3.2 fitness testing
  - 3.3 Contraindication to testing
4. **Cardiorespiratory Fitness**
  - 4.1 maximal oxygen consumption
  - 4.2 acute response to exercise
  - 4.3 accurate resting and exercising heart rate and blood pressure
  - 4.4 field tests for cardiorespiratory fitness
  - 4.5 maximal laboratory tests of aerobic capacity
  - 4.6 anaerobic power and capacity tests

5. **Body Composition Testing**
  - 5.1 body composition and health
  - 5.2 testing procedures and limitations of the various techniques
6. **Musculoskeletal Fitness**
  - 6.1 health benefits of musculoskeletal fitness
  - 6.2 prevention and treatment of lower back pain
  - 6.3 field and laboratory measures
7. **Exercise Prescription**
  - 7.1 individualized exercise prescription
  - 7.2 Exercise prescription for developing anaerobic fitness
  - 7.3 Exercise prescription for developing musculoskeletal fitness
  - 7.4 exercise prescription for the purpose of weight loss and weight management
8. **Exercise Prescription for Special Populations**
  - 8.1 Heart Disease
  - 8.2 Obesity
  - 8.3 Diabetes
  - 8.4 Aging
  - 8.5 Psychological Health