

EVALUATION:

<u>Item</u>	<u>Weighting</u>	<u>Due Date</u>
1. Client Prescription Assignment	25%	Mar 21
2. Laboratory Testing	15%	TBA
2. Group Presentation (Client Prescription)	10%	Mar 26, 28 & Apr 2
3. Midterm exam	20%	Feb 28
4. Final exam	30%	TBA

Client Prescription Assignment

Students are required to recruit a client with whom they will first conduct an interview to establish the client's personal profile, including health and lifestyle history, short term and long term goals. Based on the information obtained from the interview, students will then prepare an exercise/lifestyle prescription for the client. There are no restrictions or stipulations on the type of client the students may choose to recruit. Example clients may include; a business executive, an expectant mother, a high-performance athlete, a recreational activity participant, etc. The resulting exercise prescription paper, however, should demonstrate theoretical and applied knowledge of various physical and/or health issues.

The initial portion of the paper will include a review of literature of a physical or health issue relevant to the client (e.g., type II diabetes, golfers elbow, plantar fasciitis). Additional information will depend on the client's profile and the goals set. The paper may include physiological assessment results, nutritional analyses, weight lifting and/or cardiovascular training, rehabilitation exercises, and any other treatment or prescription that is determined to be important for the client. The exercise/lifestyle prescription should be professionally presented, must adhere to all training principles and guidelines, and be backed by current, credible research. A means of monitoring program adherence and progression should be included in the prescription design.

Papers must be formatted and referenced appropriately according to APA guidelines.

Laboratory Testing

Students will be required to demonstrate appropriate physiological testing protocols as introduced during laboratory sessions.

Group Presentation

In groups of 3, students will provide an informative presentation based on the client prescription paper of one group member.

Additional information pertaining to assignments will be provided in class and posted on the course website. Assignments should be submitted via the course website on D2L by 11:59 p.m. on the due date.

The midterm exam will take place during regularly scheduled class time.

The final exam will be written during Lakehead University's final exam period in April.

REQUIRED TEXT AND RESOURCES:

Powers, S. K., & Howley, E. T. (2018). *Exercise physiology: Theory and application to fitness and performance* (10th ed.). New York, NY: McGraw-Hill Education.

Additional readings will be available on the D2L site

LABORATORIES

Specific lab dates will be set in which students will learn and practice appropriate physiological testing protocols used in assessing human movement and athletic performance.

ADDITIONAL COURSE INFORMATION:

The School of Kinesiology has adopted a series of policies that apply to all courses. Students are expected to be familiar with these policies and to abide by them. The course policy document may be found on the School of Kinesiology website at:

<https://www.lakeheadu.ca/academics/departments/kinesiology/regulations-and-policies>

Accommodations: Lakehead University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations to ensure that students with disabilities have an equitable opportunity to participate in all of their academic activities. If you may need accommodations, please contact Student Accessibility Services (SAS – <http://studentaccessibility.lakeheadu.ca>) and register to access these services.

Courses offered by the School of Kinesiology address a number of the College of Kinesiologists of Ontario's entry-to-practice competencies. For more information on the competencies and becoming a registered Kinesiologist, visit the CKO website at:

http://www.coko.ca/application/files/8614/2861/2809/Kin_Comp_Profile.pdf.

Course lecture slides will be posted on D2L; the slides may be posted the night before or the same day that they are presented in class. These are intended to serve as a supplement to your own notes, not a substitute.

DETAILED COURSE SCHEDULE:

Week	Date	Topics	Readings
Part I: Physiology for Health & Fitness			
1		Prescription of Exercise for Health & Fitness	
	Jan 8 Jan 10	<ul style="list-style-type: none"> • Orientation, expectations, introduction to course topics • Health benefits of exercise, physiological responses & adaptations • Exercise prescription & exercise programming 	Chapter 16
2		Body Composition & Nutrition for Health	
	Jan 15 Jan 17	<ul style="list-style-type: none"> • Nutritional guidelines, energy requirements • Macronutrients, vitamins, minerals & fluids • Methods of assessing overweight & obesity • Measuring body composition • Diet, exercise & weight control 	Chapter 18
Part II: Optimizing Performance in Sport			
3		Laboratory Assessment of Performance	
	Jan 22 Jan 24	<ul style="list-style-type: none"> • Test selection (metabolic & sport specificity) • Health & Safety considerations • Test format & sequence • Practical testing for body composition, maximum muscular strength, anaerobic power, anaerobic capacity, aerobic capacity, muscular endurance, speed, agility, flexibility 	Chapter 20
4		Training for Performance	
	Jan 29 Jan 31	<ul style="list-style-type: none"> • Training principles • Optimizing training • Periodization training • Tapering for Peak performance • Overtraining 	Chapter 21
5		Training for Special Populations	
	Feb 5 Feb 7	<ul style="list-style-type: none"> • Female athletes • Sports conditioning for children • Masters athlete 	Chapter 22
6		Body Composition & Nutrition for Sport	
	Feb 12 Feb 14	<ul style="list-style-type: none"> • Body composition & sport performance • Pre-competition & post-exercise nutrition • Fluid & electrolyte balance • Monitoring hydration 	Chapter 23
7	Feb 19 Feb 21	Winter Reading Week - No Classes	
8	Feb 26 Feb 28	<ul style="list-style-type: none"> • Review • Mid Term Exam – in class (20%) 	

9		Ergogenic Aids in Sport	
	Mar 5	<ul style="list-style-type: none"> • Physiological responses to anabolic steroids, hormones, & dietary supplements • Effects on performance • Current Research on nutritional aids 	Chapter 25 Supplemental Reading
	Mar 7		
Part III: Environmental Influences on Performance			
10		Exercise in Hot & Cold Environments	
	Mar 12	<ul style="list-style-type: none"> • Thermoregulation • Physiological responses • Acclimation • Health Risks 	Chapter 24
	Mar 14		
11		Exercise at Altitude	
	Mar 19	<ul style="list-style-type: none"> • Environmental conditions • Physiological responses • Acclimation • Health risks • Client Prescription Assignment Due 	Chapter 24
	Mar 21		
12	Mar 26 Mar 28	<ul style="list-style-type: none"> • Group Presentations & Discussion • Group Presentations & Discussion 	
13	Apr 2 Apr 4	<ul style="list-style-type: none"> • Group Presentation & Discussion • Wrap-up & Final Review 	

Notes:

1. Modifications to the lecture schedule are subject to change at the Instructor's discretion and will be announced in-class and/or on the course website (D2L).
2. The chapters noted build on preceding chapters so it may be necessary to review these earlier chapters as well.
3. Supplementary readings and PowerPoint slides will be posted to D2L throughout the term.