



DEPARTMENT OF PHYSICAL EDUCATION AND KINESIOLOGY

COURSE OUTLINE – FALL 2020

**PE2420 (A2/B2): Introduction to Nutrition for Exercise and Performance – 3 (3-0-0) UT
45 Hours, 15 Weeks**

INSTRUCTOR: Alexander Villafranca, PhD **PHONE:** 780-539-2971
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OFFICE HOURS: Digitally, by appointment

CALENDAR DESCRIPTION: This course examines the fundamental principles of nutrition and the effects it has in society, athletic performance and physical education. It includes an analysis of practical and theoretical concepts of nutrition and the effects that dietary intake has on exercise, body composition and athletic performance.

PREREQUISITE(S)/COREQUISITE: None.

MAIN REQUIRED TEXT:

Nutrition for sport, exercise, and health. Marie Spano, Laura Kruskall, D. Travis Thomas. Human Kinetics, 2017.

DELIVERY MODE(S):

FALL 2020 DELIVERY: Remote Delivery.

This course is delivered remotely. There are no face-to-face or onsite requirements. Students must have a computer with a webcam and reliable internet connection. Technological support is available through helpdesk@gprc.ab.ca.

COURSE OBJECTIVES:

1. To provide students with a learning environment conducive to discussion, analysis, and synthesis of new nutrition and exercise information.
2. To increase knowledge specific to nutritional claims.
3. To explain physiological interactions between various macro and micronutrients and express interactions in the form of exercise demands
4. To differentiate between scientifically supported claims and other claims in the nutritional field.
5. To introduce and explore exercise training principles, basic sport nutrition guidelines, methods

of energy expression, energy systems, and the relationship with nutrition practices.

LEARNING OUTCOMES:

1. Students will develop a basic knowledge of the functions of the major nutrients.
2. Students will work to clarify basic interactions between dietary intake, exercise, and body composition.
3. Students will be able to critically evaluate claims about nutrition and food products.
4. Students will explore the role of nutrition in exercise and athletic performance.
5. Students will be able to effectively develop a working knowledge of key concepts such as Dietary Reference Intakes and calculating such concepts as the Total Daily Energy Expenditure.
6. Students will demonstrate competency in tracking and analyzing nutritional practices for the purposes of critical reflection.
7. Students will work to critically analyze the nutritional practices of themselves and others, and increase their competency in making dietary recommendations

TRANSFERABILITY:

UA, UC, UL, AU, GMU, CU, CUC, KUC.

Please consult the Alberta Transfer Guide for more information

(<http://alis.alberta.ca/ps/tsp/ta/tbi/onlinesearch.html?SearchMode=S&step=2>)

**** Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability**

EVALUATIONS:

Task	Due date	Percent of final mark
Assignment #1: Prospective assessment of food and beverage intake	-	Total: 10%
<i>Part 1- 5-Day food log</i>	<i>Sept 14th</i>	<i>2%</i>
<i>Part 2- Macronutrient intake breakdown</i>	<i>Sept 18th</i>	<i>1%</i>
<i>Part 3- Micronutrient intake breakdown</i>	<i>Sept 25th</i>	<i>1%</i>
<i>Part 4- Hydration breakdown and nutrient intake from liquid sources</i>	<i>Oct 2nd</i>	<i>1%</i>
<i>Part 5- Synthesis and interpretation of food intake data</i>	Oct 9th	<i>5%</i>
Assignment #2: Assessment of eating and lifestyle behavior	-	Total: 10%
<i>Part 1- Food preferences survey & Factors affecting food selection survey</i>	<i>Oct 16th</i>	<i>2%</i>
<i>Part 2- Eating behavior self-regulation survey</i>	<i>Oct 23rd</i>	<i>1%</i>
<i>Part 3- 5-day activity log with pedometer count</i>	<i>Oct 30th</i>	<i>2%</i>

<i>Part 4- Synthesis and interpretation of eating and lifestyle behavior data</i>	<i>Nov 6th</i>	5%
Assignment 3: Dietary plan	-	Total: 25%
<i>Part 1- Needs assessment</i>	<i>Nov 27th</i>	8.33%
<i>Part 2- Broad nutrition plan, informed by the needs assessment and the previous 2 assignments</i>	<i>Dec 4th</i>	8.33%
<i>Part 3- Behavioral plan to support the nutrition plan, based on eating and lifestyle behaviors</i>	<i>Dec 9th</i>	8.33%
Test 1	End of Sept	12.5%
Test 2	End of Oct	12.5%
Final Exam	Exam week, Dec, exact date TBA	30%

Further details regarding the assignments and tests will be provided during the lectures.

GRADING CRITERIA: (The following criteria may be changed to suite the particular course/instructor)

Please note that most universities will not accept your course for transfer credit **IF** your grade is **less than C-**. This means **DO NOT GET LESS THAN “C-” IF YOU ARE PLANNING TO TRANSFER TO A UNIVERSITY.**

Alpha Grade	4-point Equivalent	Percentage Guidelines		Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	90-100		C+	2.3	67-69
A	4.0	85-89		C	2.0	63-66
A-	3.7	80-84		C-	1.7	60-62
B+	3.3	77-79		D+	1.3	55-59
B	3.0	73-76		D	1.0	50-54
B-	2.7	70-72		F	0.0	00-49

COURSE SCHEDULE/TENTATIVE TIMELINE:

The instructor reserves the right to alter the timing, scope and depth of the topics covered based on the needs of students.

Week	J228 (M&W)	J203 (T&R)	Topic(s)	Readings
1	Wed, Sept 2, 2020	Thurs, Sept 3, 2020	1. Introduction Syllabus overview Introduction to nutrition How to study for this course	<ul style="list-style-type: none"> • Spano text, Chapter 1- Optimizing health and wellbeing throughout the lifespan (p.2-23)
2	Mon Sept 7, 2020	Tues, Sept 8, 2020	2. Canada food guide 3. Reading and evaluating food labels	<ul style="list-style-type: none"> • On D2L: “History of Canada food guide from 1942 to 2007” • On D2L: “Canada’s dietary guidelines 2019”, Sections 1&2, Appendix A&B • On D2L: “Understanding food labels” Health Canada, 2020. • On D2L: “Food labelling changes” Health Canada, 2020.
	Wed, Sept 9, 2020	Thurs, Sept 10, 2020	4. Nutritional assessment methods Explanation of assignment 1	<ul style="list-style-type: none"> • On D2L: “Nutritional Assessment and Counseling of Athletes”. Susan M. Kleiner. From: Essentials of Sports Nutrition and Supplements • On D2L: “Dietary Reference Standards”. Kate M Younger. From “Introduction to Human Nutrition Second Edition”
3	Mon Sept 14, 2020	Tues, Sept 15, 2020	5. Types of nutritional claims in Adspeak 6. Evaluating sources of nutrition information 7. Fact checking	<ul style="list-style-type: none"> • On D2L: Excerpts from “The Tangled Web They Weave: Truth, Falsity, & Advertisers” by Ivan L. Preston. • On D2L: “Evaluating Internet Health Information: A Tutorial From the National Library of Medicine” • Reading on fact checking TBA
	Wed, Sept 16, 2020	Thurs, Sept 17, 2020	8. Digestion	<ul style="list-style-type: none"> • On D2L: “Digestive system”, From: Nutrition Concepts and Controversies, 14th Edition

4	Mon Sept 21, 2020	Tues, Sept 22, 2020	9. Energy Systems	<ul style="list-style-type: none"> Spano text, Chapter 2- Energy metabolism (p. 24-62)
	Wed, Sept 23, 2020	Thurs, Sept 24, 2020	10. Carbohydrates	<ul style="list-style-type: none"> Spano text, Chapter 3- Carbs (p.64-91)
5	Mon Sept 28, 2020	Tues, Sept 29, 2020	Test 1	<ul style="list-style-type: none"> n/a
	Wed, Sept 30, 2020	Thurs, Oct 1, 2020	11. Fats	<ul style="list-style-type: none"> Spano text, Chapter 4- Fats (p.92-113)
6	Mon Oct 5, 2020	Tues, Oct 6, 2020	12. Evaluating scientifically supported claims about nutrition 13. Bias vs random error 14. Study designs	<ul style="list-style-type: none"> On D2L: “Critical Evaluation of Nutrition Research” Andrew W. Brown and Michelle M. Bohan Brown. From: Nutrition in Lifestyle Medicine. Other readings TBA
6	Wed, Oct 7, 2020	Thurs, Oct 8, 2020	15. Protein 1 Explanation of assignment 2	<ul style="list-style-type: none"> Spano text, Chapter 5- Protein (p.114-150)
7	Fall break Oct 12-16, no classes			
8	Mon Oct 19, 2020	Tues, Oct 20, 2020	16. Protein 2	<ul style="list-style-type: none"> Spano text, Chapter 5- Protein (p.114-150)
	Wed, Oct 21, 2020	Thurs, Oct 22, 2020	17. Vitamins	<ul style="list-style-type: none"> Spano text, Chapter 6- Vitamins (p.152-177)
9	Mon Oct 26, 2020	Tues, Oct 27, 2020	18. Alcohol	<ul style="list-style-type: none"> On D2L: “Alcohol: Its Role in Nutrition and Health”. Paolo M. Suter. In: Present knowledge in nutrition, 10th edition.
	Wed, Oct 28, 2020	Thurs, Oct 29, 2020	19. Minerals	<ul style="list-style-type: none"> Spano text, Chapter 7- Minerals (p.178-203)
10	Mon Nov 2, 2020	Tues, Nov 3, 2020	20. Water and electrolytes	<ul style="list-style-type: none"> Spano text, Chapter 8- Water and electrolytes (p.204-225)
	Wed, Nov 4, 2020	Thurs, Nov 5, 2020	Test 2	<ul style="list-style-type: none"> n/a
11	Mon Nov 9, 2020	Tues, Nov 10, 2020	21. Altering nutrition behavior Explanation of assignment 3	<ul style="list-style-type: none"> On D2L: “Effective Strategies to Help Adults Manage How Much

				<p>They Eat” Mary Abbott Waite and James M. Rippe. From “Nutrition in Lifestyle Medicine”. 2017.</p> <ul style="list-style-type: none"> • On D2L: Excerpt: “Coping with Self-Destructive Behavior” Shinsuke Ikeda, from “The economics of self-destructive behavior”
	Wed, Nov 11, 2020- review power point independently	Thurs, Nov 12, 2020	22. Supplements	<ul style="list-style-type: none"> • Spano text, Chapter 9- Nutritional supplements and other substances used in sport (p.226-252)
12	Mon Nov 16, 2020	Tues, Nov 17, 2020	23. Personalized nutrition 24. Periodized nutrition	<ul style="list-style-type: none"> • On D2L: “Personalized nutrition”. Asker Jeukendrup. In: Sport Nutrition, Human Kinetics.
	Wed, Nov 18, 2020	Thurs, Nov 19, 2020	25. Nutrition for endurance exercise	<ul style="list-style-type: none"> • Spano text, Chapter 11- Nutrition for aerobic endurance (p. 270-289)
13	Mon Nov 23, 2020	Tues, Nov 24, 2020	26. Nutrition for resistance training	<ul style="list-style-type: none"> • Spano text, Chapter 12- Nutrition for resistance training (p. 290-309)
	Wed, Nov 25, 2020	Thurs, Nov 26, 2020	27. Nutrition for weight management	<ul style="list-style-type: none"> • On D2L: “Weight management”. Asker Jeukendrup. In: Sport Nutrition, Human Kinetics.
14	Mon Nov 30, 2020	Tues, Dec 1, 2020	28. Nutrition for health-span and lifespan maximization	<ul style="list-style-type: none"> • On D2L: “Older adulthood”. From: University of Hawai’i at Mānoa Food Science and Human Nutrition Program (2018). Human nutrition • On D2L: Cem Ekmekcioglu (2019): “Nutrition and longevity. From mechanisms to uncertainties”, Critical Reviews in Food Science and Nutrition
	Wed, Dec 2, 2020	Thurs, Dec 3, 2020	29. Nutrition for childhood and adolescence	<ul style="list-style-type: none"> • On D2L: “Lifespan Nutrition During Childhood and Adolescence”. University of Hawai’i at Mānoa Food Science and Human Nutrition Program (2018). Human nutrition

15	Mon Dec 7, 2020	Tues, Dec 8, 2020	Review class	• n/a
	Wed, Dec 9, 2020	Thurs, Dec 10, 2020	No classes, use this time to study for your exams	• n/a
16	Dec 14- Dec 18, Exam week. Exact date of exam TBA			

STATEMENT ON PLAGIARISM AND CHEATING:

Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the College Admission Guide at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at www.gprc.ab.ca/about/administration/policies/**

**Note: all Academic and Administrative policies are available on the same page.