

Capilano University	
COURSE OUTLINE	
TERM: Fall 2017	COURSE NO.: HKIN 212
INSTRUCTOR:	COURSE NAME: Nutrition in the Prevention and Treatment of Disease
OFFICE: LOCAL:	SECTION NO.: CREDITS: 3

FORMAT: 3 lecture hours per week.
1 hour 4th hour activities per week will be used to perform group learning activities.

DURATION: 15 weeks which includes two weeks for final exams

PREREQUISITE (S): HKIN 112 or BIOL 202

COURSE DESCRIPTION: This course builds on principles introduced in HKIN 112. Starting with a review of the origins and safety of the food supply, it will progress to discuss the role that nutrition has in the prevention and treatment of common degenerative diseases such as cancer, cardiovascular diseases, type II diabetes and obesity. Special emphasis will be directed towards preventing these chronic conditions and establishing lifelong healthy eating patterns.

LEARNING OUTCOMES: Upon completion of this course, successful students will be able to:

1. Explain and compare the origins of our food supply, the manner and degree in which it is transported and processed
2. Analyze the developmental origins of chronic disease
3. Discuss the relationship between nutrition and the prevention and treatment of diseases such as diabetes, obesity, cardiovascular diseases and cancer
4. Illustrate the health benefits of phytochemicals
5. Design a nutritional plan that outlines choices that will create health and longevity

COURSE CONTENT:

1. Food supply - where our food comes from, its transport and how it is processed
 - Food transport and its role in food quality
 - Processing, enrichment, and the effect on food
 - Influences from government, lobbying and special interest groups
2. Genetically modified and organic foods
 - History, technology, economics and physical effects of the ingestion of genetically modified foods
 - History, technology, economics and physical effects of the ingestion of organic foods

3. The developmental origins of chronic disease
 - The role of short term and unresolved long term inflammation
 - Intestinal bacteria and their role in health
4. Type II diabetes– genesis, prevention and treatment
 - Blood sugar regulation, the role of the pancreas, glucose intolerance and diabetes
 - The influence of carbohydrates and fats on blood sugar control
5. Obesity - the multifactorial issues and its prevention and treatment
 - The role of macronutrients in obesity proliferation
 - Exercise, behavior modification and dieting and its effect on obesity
6. Diet, physical activity and their role in the prevention and treatment of cardiovascular diseases
 - The role of fat and carbohydrates in cardiovascular disease generation
 - Physical activity, its effects, and how it can play a role in cardiovascular disease treatment
 - The protective effects of foods, fats, and other nutrients
7. Diet and its role in cognitive decline and neurodegenerative disease
 - Dementia, inflammation and oxidative stress
 - Neuroprotective role of fats and polyphenols
8. Cancer – genesis, prevention and treatment
 - The initiation of malignant and benign tumours
 - Foods and food preparation methods associated with cancer
 - The protective, and potentially reversing effects of foods, and other nutrients

REQUIRED TEXTBOOKS: Nutrition in the Prevention and Treatment of Disease

Ann M. Coulston, Carol J. Boushey, Mario Ferruzzi
(3rd Ed), Elsevier, 2013

EVALUATION PROFILE:

Group Presentation	15%
Midterm 1	20%
Midterm 2	25%
Quizzes (2 @ 5%).....	10%
Final Examination.....	30%
TOTAL	100 %

GRADING PROFILE:

Letter grades will normally be assigned according to the following guidelines:

A+ = 90 - 100%	B+ = 77 - 79%	C+ = 67 - 69%	D = 50 - 59%
A = 85 - 89%	B = 73 - 76%	C = 63 - 66%	F = 0 - 49%
A- = 80 - 84%	B- = 70 - 72%	C- = 60 - 62%	

OPERATIONAL DETAILS:

- University Policies:** Capilano University has policies on Academic Appeals (including appeal of final grade), Student Conduct, Cheating and Plagiarism, Academic Probation and other educational issues. These and other policies are available on the University website.
- Class Procedures:** The class will be taught using a student-centered instructional approach. **Full attendance is expected at all lectures.** Due to the integrated nature of the course material, absence from lectures will greatly impair the ability of students to integrate course content.
- Incomplete Grades:** I = Incomplete. An "I" grade will be assigned only under exceptional circumstances.
- Late Assignments:** Late assignments will be penalized at the rate of 10% of the worth of the assignment per day late.
- Missed Examinations:**
- a) Excuses for missed examinations, quizzes, tests, labs, etc. are accepted only under exceptional circumstances (e.g. illness, death in the family, etc.)
 - b) The student is responsible for ensuring that the instructor (or the Human Kinetics office staff, if the instructor is not available) is notified about the missed examination, quiz, test, lab, etc. Such notification **should** occur in advance if possible, or at the latest, the day of the examination.
 - c) The student will be required to provide proof, such as a medical or death certificate to validate the excuse.
 - d) Once (a), (b), and (c) above are satisfied, it is the instructor's option as to how the missed examination, quiz, test, lab, etc. is made up.
 - e) **MAKE-UP EXAM:** If a make-up is given, it is entirely different than the originally scheduled exam and will not be easier.
- Final Letter Grade:** All registered students will receive a **Final Letter Grade** unless they have officially withdrawn (see the University calendar for the official withdrawal date).
- Attendance:** Students are reminded that the University is a post-secondary institution and appropriate conduct is expected. It is the students' responsibility for all information given out in lectures and/or laboratories, including times of exams and assignments. Make-up examinations will be given only under exceptional circumstances. **In order to pass the course, students must hand in all aspects of the course assignments**
- Cheating/Plagiarism:** Plagiarism is the presentation of another person's or source's words and/or ideas as if they were one's own. This is a serious offence and is a form of cheating. Students caught cheating may have a sanction imposed by the instructor ranging from a failing grade for the assignment to a failing grade for the course. **Plagiarism** (including the copying of any part of assignments, laboratory reports, and essays) is a serious offence and is a form of cheating.

- Final Exam Period:*** Students should note that the date of the final exam might include Saturdays. Students can expect to write exams at **any time** during this period. Individual exam times will not normally be rescheduled because of holidays, work, or other commitments. While efforts are made to spread exams throughout the exam period, an individual's particular course combination may result in exams being scheduled close together, or widely spread through the entire exam period.
- English Usage:*** Capilano University recognizes the importance of good *English Usage*. English grammar and spelling will be considered in marking assignments and tests, and in awarding final grades.
- Lecture Notes:*** Partial or complete notes will be made available by the instructor.
- Classroom Etiquette:*** Appropriate classroom etiquette includes not entering or leaving during a lecture and no eating, sleeping, private conversations, or unrelated activities. Students are expected to listen and contribute with respect for others. Disruptions or distracting behaviour and/or improper use of electronic devices may result in a reduced participation grade, regardless of the level of participation at other times.
- Emergency Procedures:*** Students are required to familiarize themselves with emergency procedures posted in the classroom.