

KIN 221 - HUMAN NUTRITION

(45 contact hours, 3 credits)

Course Description

Students will examine evidenced-based relationships between nutrition and the promotion of long-term health and well-being. They will become familiar with food-related policy and recommendations, including Dietary Guidelines, Food Labels, and evidence-based nutrition programs, and gain practical skills to make healthful dietary choices. Moreover, students will learn health promotion strategies to help influence other people's food choices and apply these strategies to a specific modifiable chronic disease such as diabetes and heart disease.

Course Learning Outcomes

Upon mastery of course content the student will:

- Identify the 3 macronutrients: protein, lipid & carbohydrate; their sources, functions and relationship to disease states including obesity. Identify the environmental connection to food production & consumption.
- Identify the micronutrients: vitamins & minerals; their sources, functions, deficiency's & toxicity symptoms, including phytochemicals.
- Describe & identify the anatomy & physiology of the digestive system, accessory organs of digestion & hormones regulating digestion, hunger & appetite.
- Identify & obtain scientific research articles; apply information in a writing assignment.
- Complete & interpret a computer generated dietary analysis.
- Identify the stages of cellular respiration, the entry points of the macronutrients & identify the function of specific micronutrients in the process.
- Identify the various types & sources of food borne illness and methods of prevention.

Course Subjects

Unit 1

- An Overview of Nutrition
- Planning a Healthy Diet
- Digestion, Absorption and Transport
- The Carbohydrates: Sugars, Starches and Fibers
- The Lipids: Triglycerides, Phospholipids, and Sterols

Unit 2

- Amino Acids, Proteins and their functions
- Metabolism: Transformations and Interactions Water-Energy Balance and Body Composition
- Weight Management: Overweight, Obesity, and Underweight
- Water-Soluble Vitamins: B Vitamins and Vitamin C

Unit 3

- The Fat-Soluble Vitamins: A, D, E, and K
- Water and Major Minerals
- The Trace Minerals
- Fitness: Physical Activity, Nutrients, and Body Composition
- Life Cycle Nutrition: Pregnancy and Lactation
- On-site lesson - Simulating a nutritional visit

Unit 4

- Life Cycle Nutrition: Infancy, Childhood, and Adolescence
- Life Cycle Nutrition: Adulthood and the Later Years
- Diet and Health
- Consumer Concerns About Foods and Water

Unit 5

- Hunger
- Global Environment and its connection to nutrition
- Contaminants in Food
- How to preserve food biosafety
- SEMINAR - False myths about nutrition: legends and scientific evidence

Unit 6

- The Mediterranean Diet (Focus)
- The Mediterranean Diet VS the American Diet
- The Slow Food idea VS the Fast Food idea
- Typical Sorrento food and its connection to health
- On-site lesson - Elaborating a Mediterranean Diet

COURSE REQUIREMENTS

Two exams (mid-term + the final one) will be scheduled. Students are expected to prepare for examinations over all material scheduled. The use of notes or texts will not be permitted during the exams. Exams will be a combination of multiple choice and essay questions.

COURSE REQUIRED PROJECTS

Students are expected to read and follow the instructions for each required project. Students grade will reflect how well they follow the instructions.

1) Family History Tree

Students will assess their risk for diseases impacting us such as, diabetes, heart disease, stroke & cancer by exploring their family tree. This project will have the student create a family tree, including the diseases, age of onset, and current status and evaluating their personal risk of any of the disease(s) observed in their family.

2) Three (3) Day Dietary Food Record

Students will keep and calculate two 3-day dietary food records that will be analyzed on a specific computer program.

3) Literature Critique & Oral Presentation

Students will find and write a summary of one current article on nutrition from a peer reviewed journal such as Journal of the American Dietetic Association; American Journal of Clinical Nutrition; Journal of Nutrition: Nutrition Research; Journal of Nutrition Education or others.

4) Nutrition Paper

Students will write a 4-8 page typewritten paper on a specific, approved nutrition topic. The paper must have a minimum of 6 references and at least eight must be from full-text, peer reviewed, scientific journal articles.

ASSESSMENT

- Attendance and participation: 20%
- Exams (mid-term and final): 25%
- Nutrition Paper: 25%
- Other projects: 30%

TEXTBOOK

Nutrition: Concepts & Controversies, by Frances Sienkiewicz Sizer, Ellie Whitney., Brooks/Cole Pub Co., 2013.

Policy

Attendance:

You are allowed two unexcused absences. Documentation for any other absence **MUST** be produced and **APPROVED** by the professor or the Director. For absences due to illness, please provide the professor with a doctor's note upon returning to class as well as inform them and/or the school the first day of illness. Each unexcused absence after the second will reduce your grade by 3 percentage points.

Late submissions:

Assignments not submitted by the due date will receive a penalty of 10% for the first 24 hours, 20% for a 48 hour delay. No submissions will be accepted more than 3 days after the deadline, unless arrangements have been made with the instructor (for extensions under exceptional circumstances, apply to the course instructor).

Personal Technology:

Please turn cell phones off during class. Laptops may be to take notes, however social networking, e-mailing, surfing the Internet, playing games, etc. are absolutely forbidden during class. Any student caught doing the aforementioned activities during class will be asked to turn off their cell phones and/or computers.

Repeated violations of this rule after the first warning will result in the student being marked absent for the day and permanently losing their laptop privileges. Be respectful; the use of personal electronic devices during class is limited to academic purposes.

Contesting a grade:

If students wish to contest a grade they must make an appointment to do so in person. The student should contact the instructor with any concerns within **ONE** week of receiving the grade. The student must also demonstrate that they have read the comments accompanying the grade by presenting a brief written statement specifying why the grade does not reflect the quality of the work.

It is at the discretion of the instructor to decide whether the work and the student's request warrant any increase or decrease in the grade. Students should retain a copy of all submitted assignments and feedback (in case of loss) and should also retain all of their marked assignments.

Academic Honesty Statement:

Academic dishonesty is **NOT** tolerated in this course.

Academic honesty is not only an ethical issue but also the foundation of scholarship.

Cheating and plagiarism are therefore serious breaches of academic integrity.

If you refer to someone else's work, appropriate references and citations must be provided.