

SYLLABUS

Quarter:	WINTER 2015
Name of Course:	Basic Nutrition-CHEM 223
Length of Course:	3 units, 33 hours (3 hours lecture/week)
Course Description:	This course investigates the philosophy and practice of nutrition in relationship to chiropractic. The biochemistry of nutrients is presented, with special reference to the role of nutritional factors in the etiology of heart disease, hypertension, osteoporosis and cancer. Attention is also given to gastrointestinal function, particularly in relationship to understanding food allergies and the effects of certain foods on hormone balance.
Prerequisites:	CHEM-133, PHPA-213, ANAT-219
Course Offered by:	Department of Basic Sciences Sue Ray MS, Department Chair
Recommended Texts:	Mahan and Escott-Stump, " <u>Krause's Food, & Nutrition Therapy</u> ," 13 th ed. 2012 . (ME-S) Gaby, <u>Nutritional Medicine</u> , 2011 (Fritz Perlberg Publishing, Concord NH).
Materials:	Moodle. Class Notes. Integration of Socrative into the classroom may require student use of technological devices such as smart phone, tablet or computer interfacing.
Course Instructor:	Dr. Tamara MacIntyre MS DC DNM
Office Hours:	Room 124 Tuesday & Wednesday: 11:40 AM -12:30 PM Other availability by Appointment Only. tmacintyre@lifewest.edu
Class Time:	Wednesday 1:00-2:50 PM, Thursday 4:00-4:50PM
Method of Instruction:	Lecture, research projects, group & class discussion. *Active Participation expected & required.
Evaluation Criteria:	A = 90-100%; B = 80-89%; C = 70-79%; F < 70% 20% Research Projects (10% x 2) 30% Quizzes 5% Attendance 5% In-Class Discussion/Participation 40% Final Exam-Cumulative 100%

Exams: College policy applies.

Request for Special Testing: College policy applies.

Accommodations for Students with Disabilities:

If you have approved accommodations, please make an appointment to meet with your instructor as soon as possible. If you believe you require an accommodation, but do not have an approved accommodation letter, please see the Academic Counselor Lori Pino in the Deans Office. Contact info: Lpino@lifewest.edu or 510-780-4500 ext. 2061.

Attendance: College policy applies.

Conduct and Responsibilities: College policy applies.

The **use of electronic devices during class** (e.g. cell phones, laptops & tablets) for non-course activities is unprofessional behavior. Students will be penalized for such activities; and may include loss of attendance credit for the course hour. Course related use of electronic devices during class time requires prior instructor's approval.

Make up Exams: College policy applies.

Course Goals: The primary goal of the Basic Nutrition course is to develop skills in the fundamental biochemistry and applied pathophysiology of nutrition as it relates to health. To achieve this goal, the course examines the detailed relationships between basic science, dietary requirements, patient outcomes and selected topics of evidence-informed care management. The secondary goal is to develop and expand the information and technology literacy of students for the application of research in the evidence-informed clinical decisions of the chiropractic management of patients.

The basic principles of nutrition will be covered. Topics will include: dietary choices and dietary modifications/regimes, influences on eating patterns; integration of nutrition, biochemistry and disease; food intake and satiety; weight management. We will also explore the controversy of balancing Dietary Reference Intakes (RDIs) vs. individual patient biomarkers needs; vitamins & minerals status as it relates to patient's constitutional make-up and genetic predispositions. Finally we will undertake discussions of additional additives and substrates in our food chain created by industrialization and food processing. The relationship between nutrition, symptomatic health changes and chronic disease will be addressed from a functional medicine perspective.

Course Objectives & Weekly Schedule:

Wk 1:	Nutrition from a Functional Medicine Approach The 'Lay of the Land' in Nutritional Science <u>Bio Impedance Analysis (BIA) Project-Sign up schedule</u>
Wk 2:	Sugars & Carbohydrates <u>Research Project: Assignment of Topics</u>
Wk 3:	Carbohydrates & Fats
Wk 4:	Proteins & Amino Acids <u>Research Project #1 Due– Food & Dietary Modifications (10%)</u>
Wk 5:	Vitamins Nutritional Deficiencies & accompanying Symptomatology <u>Quiz #1 – Carbohydrates, Sugars & Fats (10%)</u>
Wk 6:	Minerals Nutritional Deficiencies & accompanying Symptomatology <u>Quiz #2 – Proteins & Amino Acids (10%)</u>
Wk 7:	The Biochemistry of Nutrition & Dis-ease Introduction to concept of SNPs, Biomarkers & our Constitutions <u>Quiz #3 – Vitamin & Mineral (10%)</u>
Wk 8:	Assessment of Nutritional Status Bio Impedance Analysis (BIA) & Body Composition Utilization of Diet Logs, BIA, Questionnaires and In-house Testing
Wk 9:	Digestion, Absorption, Gut Ecology & Food Sensitivities/Allergies Consequences & Considerations of Industrialization of Food <u>Research Project #2 Due – BIA Self-Analysis (10%)</u>
Wk 10:	Therapeutic Diet Plans CORE Diet Plans, Integration & Optional Labs Project #1: Topic Discussions/Participation
Wk 11:	FINAL EXAM – CUMMULATIVE (40%)

STUDENT LEARNING OUTCOMES:

Upon successful completion of Basic Nutrition the student should be able to

1. To have acquired the tools to collect information and think through a case or problem pertaining to nutritional status & circumstances of a patient.
2. To learn to research & investigate a health challenge, consider philosophical slant of the patient/family & devise a management plan to suit the patient's decision matrix
3. To understand, apply, analyze, synthesize and evaluate evidence to make conclusion or come to a nutritional or dietary related diagnosis (or DDxs whichever applies to the patient)
4. To acquire the confidence and competence to reason through a case based on evidence, intuition & skill and to effectively communicate this information back to the patient/family without cultivating fear and offering help, solution or strategy
5. To develop a management and recommend a care plan that suits the nature of the complaint, honours the time the body will take to adapt and heal & is within the patients realm of possibility (having clearly identified where they are on the decision matrix)
6. Integrate new and evolving information pertaining to food, nutrition and health into a framework and philosophical approach that honours our vitalistic chiropractic philosophy.