

Submitted April 16, 2007

Foods & Nutrition Program

The Dietetics Option is an Accredited American Dietetic Association Didactic Program in Dietetics. Students pursuing career goals in the dietetic field will qualify for post-graduate dietetic internship programs which can lead to membership in the American Dietetic Association and Registered Dietitian status. Upon completion of a dietetic internship, graduates are eligible to take the registration examination to become Registered Dietitians. Dietitians are members of the professional health care team and serve as facilitators who translate scientific knowledge into practical applications so that consumers and patients can make informed decisions about their diet and health. Dietitians are employed in acute and long-term care facilities, community and government agencies, schools, the private sector, or are self-employed. Administrative dietitians supervise and coordinate large feeding operations in hospitals, extended care facilities, restaurants, colleges, schools, and businesses.

Program Objective 1:

To describe the role of essential nutrients in health promotion and disease prevention.

Student Learning Outcome 1.1

To be able to describe the Therapeutic Lifestyle Change (TLC) diet and to use the TLC diet to counsel individuals in order to improve their blood lipid profiles.

Performance Criteria (I=FN 235, P=FN 335, M=FN 443/444)

- a. Case study assignment focusing on a patient at risk of heart disease
- b. Student will develop a seven day cycle of menus based on the TLC diet for an individual identified as having an undesirable, at-risk blood lipid profile. Student will suggest additional lifestyle change strategies to decrease heart disease risk.
- c. 75% of students will demonstrate mastery (grade of ≥ 80 on assignment) of TLC diet planning.

Student Learning Outcome 1.2

To be able to describe the Dietary Approaches to Stop Hypertension (DASH) diet and to use the diet to counsel individuals who need to control their high blood pressure.

Performance Criteria (I=FN 235, P=FN 335, M=FN 443/444)

- a. Case study assignment focusing on a patient diagnosed with hypertension
- b. Student will develop a seven day cycle of menus based on the DASH diet for an individual identified as having hypertension. Student will suggest additional lifestyle change strategies to decrease hypertension.
- c. 75% of students will demonstrate mastery (grade of ≥ 80 on assignment) of DASH diet planning.

Student Learning Outcome 1.3

To be able to describe and utilize the three-part program developed by the US government, including the Dietary Guidelines for Americans, MyPyramid.gov and the Nutrition Label, to improve the health of targeted populations.

Performance Criteria (I=FN 235, P=FN 335, M=FN 345)

- a. Nutrition education/curriculum development assignment.
- b. Student will develop a three-session (thirty minutes each) series of lesson plans to teach a group of adults how to utilize the Dietary Guidelines for Americans, the MyPyramid.gov web site, and the Nutrition label to choose a healthy and balanced diet.
- c. 75% of students will demonstrate mastery (grade of ≥ 80 on assignment) of the Dietary Guidelines for Americans, the MyPyramid.gov web site, and the Nutrition label.

Student Learning Outcome 1.4

To become familiar with the Dietary Reference Intakes (DRIs) for the macronutrients and micronutrients and utilize the DRIs to assess diets and make dietary recommendations.

Performance Criteria (I=FN 235, P=FN 433/434/435, M=FN 443/444)

- a. Diet Analysis Projects.
- b. Student will carry out two dietary analysis projects, a dietary self-analysis and an analysis of the diet of another person, utilizing diet analysis software to determine diet adequacy based on the DRIs and to create a diet plan to remedy any significant deviations from the DRIs.
- c. 75% of students will demonstrate mastery (grade of ≥ 80 on assignment) in utilizing diet analysis software and the DRIs to analyze dietary adequacy.

Student Learning Outcome 1.5

To be able to describe the most likely nutritional deficiencies of at-risk groups in the United States and to identify dietary sources of nutrients that can reverse these deficiencies. The student will become familiar with the DHHS “Healthy People: Nutrition Objectives for the Nation” (current version 2010).

Performance Criteria (I=FN 235, P=FN 335, M=FN 433/434/435, FN 443/444)

- a. Population assessment project.
- b. Student will identify a population, assess that population’s nutrition needs, and develop an intervention plan based upon the assessment and the Healthy People Objectives.
- c. 75% of students will demonstrate mastery (grade of ≥ 80 on assignment) in assessing populations and developing intervention plans.

Program Objective 2:

To describe the role of bioactive non-nutrients in health promotion and disease prevention.

Student Learning Objective 2.1

To be able to define the term phytochemical, identify the major classes of phytochemicals, and describe the key mechanisms by which phytochemicals can provide protection against chronic diseases such as heart disease and cancer.

Performance Criteria (I=FN 235, P=FN 343, FST 325)

- a. Exam questions in FN 235 and FN 343.
- b. Students will be able to list major phytochemical classes, give examples of phytochemicals in each class, and describe potential mechanisms of phytochemical protection.
- c. Average exam question scores will be $\geq 75\%$.

Student Learning Objective 2.2 To be able to describe the progression of scientific research, the hierarchy of evidence, and to utilize an evidence-based approach to evaluate the use of phytochemicals in the prevention and treatment of human disease.

Performance Criteria (I=FN 263, P=FN 343, FN 335, FN 443/444)

- a. Research paper critical review assignment.
- b. Students will search appropriate data bases for a minimum of 5 peer reviewed research articles on a mutually agreed upon topic. Student will critically review articles based upon established criteria and write a critical review of the topic area.
- c. 75% of students will demonstrate mastery (grade of ≥ 80 on assignment) of database searching and critical review of peer review research articles.

Student Learning Objective 2.3

To be able to describe the potential interactions between any and all of the following: essential nutrients, drugs, phytochemicals, and medicinal herbs.

Performance Criteria (I=FN 343, P=FN 443/444)

- a. Drug research assignment.
- b. Students will utilize key drug information references such as the *Physician's Desk Reference*, *Food-Medication Interactions* and *Goodman and Gilman's The Pharmacological Basis of Therapeutics* to find key information about drugs including indications, contraindications, adverse effects, mechanism of action, and interactions.
- c. 75% of students will demonstrate mastery (grade of ≥ 80 on assignment) in utilizing drug reference works.

Program Objective3:

To perform a comprehensive nutritional assessment.

Student Learning Objective 3.1

To understand, interpret and carry out basic anthropometric measurements and use these measurements to determine the nutritional status of a patient.

Performance Criteria (I=FN 335, P=FN 443/44 Labs)

- a. Anthropometric assessment assignment.
- b. Students will carry out anthropometric assessment measurements on their classmates in MNT lab.
- c. 75% of students will demonstrate mastery (grade of ≥ 80 on assignment) of anthropometric assessment measurement techniques.

Student Learning Objective 3.2

To understand and interpret basic laboratory tests to determine such things as nutritional deficiencies/toxicities, blood lipid status, disease status, metabolic derangements and growth.

Performance Criteria (I=FN 335, P=FN 443/444 Labs)

- a. Interpreting basic lab results assignment.
- b. Students will interpret basic laboratory test results from typical patients and determine appropriate nutrition diagnoses based on the laboratory tests.
- c. 75% of students will demonstrate mastery (grade of ≥ 80 on assignment) of anthropometric assessment measurement techniques.

Student learning Outcome 3.3

To understand, develop and interpret dietary intake instruments including diet histories, 24-hour diet recalls, 3-day diet diaries and food frequency questionnaires.

Performance Criteria (I=FN 235, P=FN 335, FN 346, FN 443/444)

- a. Food frequency questionnaire (FFQ) assignment.
- b. Student will identify a disorder (osteoporosis for example), identify the nutrient deficiency associated with the disorder (calcium and vitamin D for example), develop a FFQ to determine intake of the nutrient of interest, administer the FFQ to a predefined group, analyze the results, and make recommendations.
- c. 75% of students will demonstrate mastery (grade of ≥ 80 on assignment) of the FFQ technique.

Program Objective 4

Determine nutrient needs across the lifespan under conditions of both health and disease and assess the need for nutritional supplementation.

Student Learning Objective 4.1

Describe nutrient requirements and potential nutritional deficiencies during pregnancy and lactation.

Performance Criteria (I=FN 235, P=FN 328, FN 335, FN 346)

- a. Exam questions in FN 235 and FN 335.
- b. Students will be able to discuss nutrient requirements and deficiencies during normal and abnormal pregnancy and lactation.
- c. Average exam question scores will be $\geq 75\%$.

Student Learning Objective 4.2

Describe nutrient requirements and potential nutrient deficiencies during childhood and adolescence.

Performance Criteria (I=FN 235, P=FN 328, FN 335, FN 346)

- a. Exam questions in FN 235 and FN 335.
- b. Students will be able to discuss nutrient requirements and deficiencies during normal and abnormal childhood and adolescence.
- c. Average exam question scores will be $\geq 75\%$.

Student Learning Objective 4.3

Describe nutrient requirements and potential nutrient deficiencies during adulthood and old age.

Performance Criteria (I=FN 235, P=FN 328, FN 335, FN 346)

- a. Exam questions in FN 235 and FN 335.
- b. Students will be able to discuss nutrient requirements and deficiencies during normal and abnormal adulthood and aging.
- c. Average exam question scores will be $\geq 75\%$.

Student Learning Objective 4.4

Describe the nutrition-related diseases associated with the various stages of life and the Medical Nutrition Therapies associated with treating these diseases.

Performance Criteria (I=FN 235, P=FN 335, M=FN 443/444)

- a. Case study assignments.
- b. Students will complete case studies associated with each major organ system in the body such as the cardiovascular system or gastrointestinal system.
- c. Three case studies will be utilized to assess student learning (hypercholesterolemia, type 2 diabetes and colon cancer). 75% of students will demonstrate mastery (grade of ≥ 80 on assignment) on the case study assignments.