LSC Use Only

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MAY

Course Number and Full Title

Course Deletion

Course Number and Full Title

Number and/or Title Change

Old Number and/or Full Old Title

New Number and/or Full New Title

Course or Catalog Description Change

Course Number and Full Title

Minor

Track

Program Name

Program Deletion*

85

FN 458/558 Advanced Human Nutrition (4c-0l-4sh)

Prerequisites: FN 355, CH 255 or CH 351, MA 217

In-depth study of the nutrients and their function within the cell. Incorporation of the principles of physiology and biochemistry in the study of nutrition. Emphasis placed on applying current

I. Catalog Description

FN 458/558	Advanced Human Nutrition	4 credits 4 lecture hours 0 lab hours (4c-0l-4sh)

Prerequisites: FN 255, CH 255 or CH 351, MA 217

[redacted]

III. Course Outline

(56 hours - 4, one hour exams = 52 hours of class time in one semester)

A. Introduction/Nutrition Research Methodologies (5 hours)
   1. Descriptive Studies
   2. Analytical Surveys
   3. Experimental Method
   4. Use of Statistics in Interpreting Research
      (mean, median, mode, t-test, analysis of variance)
   5. Reading Scientific Tables in Nutrition Research

B. The Recommended Dietary Allowances (2 hours)
   1. History and Purpose
   2. Scientific Basis for Recommendations
   3. Revisions of Recommendations

C. The Gastrointestinal Tract (5 hours)
   1. Review of Anatomy and Physiology
   2. Specialized Cells of the Gastric and Intestinal Epithelium
   3. Enzymes of Digestion
   4. Digestion of Carbohydrate, Protein, Lipid, and Fiber
   5. Application to Gastrointestinal Diseases (e.g. Dysphagia, Gall Bladder, Constipation, Diverticulosis)

D. The Fat Soluble Vitamins: Absorption/Function/Assessment of Nutritional Status/Application of Current Research (6 hours)
   1. Vitamin A
   2. Vitamin D
   3. Vitamin E
   4. Vitamin K
   5. Applications (e.g. β-carotene as an antioxidant, Vitamin D and latitude, Vitamin E and low density lipoprotein oxidation)

E. The Water Soluble Vitamins: Absorption/Function/Assessment of Nutritional Status/Application of Current Research (9 hours)
   1. Thiamin
   2. [illegible]
   3. Niacin

4. Vitamin B_6

6. Vitamin B_{12}
7. Biotin
8. Vitamin C
9. Applications (e.g. B vitamin needs of athletes, Homocysteinemia and heart disease, Vitamin B_{12} and senility)

F. The Macrominerals: Absorption/Function/Assessment of Nutritional Status/Application of Current Research (4 hours)

1. Calcium

3. Magnesium
4. The Electrolytes: Sodium, Potassium, and Chloride
5. Applications (e.g. measures of bone mass, magnesium needs of women, fluid balance and athletic performance)

G. The Microminerals: Absorption/Function/Assessment of Nutritional Status/Application of Current Research (6 hours)

1. Iron
2. Zinc
3. Copper
4. Chromium
5. Iodine

1. Review of Triglyceride Metabolism
2. Ketone Formation and Relationship to Carbohydrate Intake

[redacted]

4. Hormonal Control of Triglyceride Metabolism
5. Lipoprotein and Apolipoprotein Metabolism
6. Eicosanoids and Heart Disease
7. The Relationship of Individual Fatty Acids to Cardiovascular Disease Risk
8. The Effect of Selected Drugs on Cholesterol Metabolism

K. Protein Metabolism (4 hours)

1. Amino Acid Catabolism for Energy Yield

[redacted]

3. The Urea Cycle
4. Neurotransmitter Synthesis: Serotonin, Dopamine, Norepinephrine, Epinephrine
5. Application (e.g. glutamine as a gut fuel, carbohydrate intake on serotonin synthesis)

interpret food and health-related scientific studies. Washington, DC.

2. Mortensen L. & Charles, P. (1996) Bioavailability of calcium supplements and the effect of vitamin D: comparisons between milk, calcium carbonate, and calcium carbonate plus vitamin D. American Journal of Clinical Nutrition, 63, 354-357.

3. Yates, A. A., Schlicker, S. A. & Suitor, C.W. (1998) Dietary reference intakes: the new basis for recommendations for calcium and related nutrients, B vitamins, and choline. Journal of the American Dietetic Association, 98, 699-706.

4. Institute of Medicine, Food and Nutrition Board. (1998) Dietary reference intakes for thiamin, riboflavin, niacin, vitamin B-6, folate, vitamin B-12, pantothenic acid, biotin, and choline. Washington DC: National Academy Press.

5. McBean, L.D. (1998, July/August). Special dietary needs of mature Americans. Dairy Council Digest, 69, 19-24.

6. Addis, P. B. (1990, March/April). Coronary heart disease: an update with emphasis on [illegible] lipid oxidation products. Food and Nutrition News, 62, 1-4.

[redacted] Proposal to Change FN 458 Advanced Human Nutrition from a 3 credit to a 4 credit

[redacted] ourse

Table of Contents

Summary of Proposed Revisions

The proposed revision for this course is to increase it from three to four credits with an accompanying increase in the amount of information to be discussed. This revision also adds MA 217, Probability and Statistics, and FN 355, Nutrition in Disease I as prerequisites.

FN 458/558 Advanced Human Nutrition 3 s.h.

I. Catalog Description

Study in depth of the nutrients and their functions within the cell. Incorporation of the principles of physiology and biochemistry in the study of nutrition. Emphasis on current research and evaluation of research methodology. (3 hours lecture) Prerequisite: CH 351 or 355 or concurrently, FN 212

II. Competencies

The student will:

[redacted]

B. distinguish between the functioning of normal and malnourished

[redacted]

cells.

C. explain the role of each essential nutrient in cellular metabolism.

D. explain the role of nutrition in maintaining immunity

[redacted]

IV. Evaluation

A. Midterm exam

B. Term project

V. Text

Goodhart and Shils. Modern Nutrition in Health and Disease, 6th edition.

VI. Supplementary Materials

Pike and Brown. Nutrition: An Integrated

[redacted]

Professional journals

VII. Special Provisions

A. Term project will be the development of a research design based on a review of current literature.

B. Midterm exam will test student's ability to integrate course

[redacted]

Part III. Student Statements of Support

[redacted]

A. Four credit course

extra hour of class would be beneficial in allowing you to cover more information."

[redacted]

summary, once each semester, and presenting it to the class. These summaries may take 10 or 15 minutes, depending on an additional review/explanation of topics that were not well understood. Students state that they like this addition of "5 minute summaries".

Fall, 1996

[redacted]

A. Yes n = 14; 93%
B. No n=1; 7%

Spring, 1997

[redacted]

April 20, 1999

To: Mary Swinker
Chair, College Undergraduate Curriculum Committee

From: Rita Johnson
Department of Food and Nutrition

Subject: Revision of Course Proposal

Mary, please find attached the course proposal to increase the number of credits for Advanced Human Nutrition, FN 468, from 3 credits to 4 credits. The undergraduate curriculum committee made some minor recommendations last spring, which I have made. These changes include:

1. Omitting credit, lecture, and lab hours on the catalog description page.

Subject: **Adding MA 217 as a prerequisite to FN 458**
Date: Wed, 16 Feb 2000 22:49:26 -0500
From: Joanne Steiner <jsteiner@grove.iup.edu>
Organization: Chair, Food and Nutrition
To: JBuriok@grove.iup.edu
CC: Joanne Steiner <jsteiner@grove.iup.edu>

I have just come across another course that is the same as my previous memo. We would like to add MA 217 as a prerequisite to FN 458 Advanced Human Nutrition. Emphasis in this course is placed on applying current research and evaluation of research methodology.

Another email reply would be appreciated.

--
Joanne B. Steiner
Chair, Food and Nutrition

Subject: Adding MA217 as a prerequisite
Date: Thu, 17 Feb 2000 13:17:29 -0500
From: Jerry Buriok <jburiok@grove.iup.edu>
To: jsteiner@grove.iup.edu
CC: Jerry Buriok <jburiok@grove.iup.edu>

Dr. Steiner,

In response to your memos stating you wish to add MA217 Probability and Statistics to the prerequisites for FN362 Experimental Foods and FN458 Advanced Human Nutrition. I want to inform you the Mathematics Department is totally