

# APPLICATION FOR CHANGE IN EXISTING COURSE: MAJOR and MINOR

1. Submitted by the College of Medicine Date: March 3, 2008

Department/Division offering course: Nutritional Sciences

2. What type of change is being proposed?  Major  Minor\*

\*See the description at the end of this form regarding what constitutes a minor change. Minor changes are sent directly from the dean of the college to the Chair of the Senate Council.

If the Senate Council chair deems the change not to be minor, the form will be sent to the appropriate Council for normal processing and an email notification will be sent to the contact person.

## PROPOSED CHANGES

Please complete all "Current" fields.

Fill out the "Proposed" field only for items being changed. Enter N/A if not changing.

Circle the number for each item(s) being changed. For example: (6.)

3. Current prefix & number: NS 602 Proposed prefix & number: N/A

4. Current Title Micronutrient Metabolism

Proposed Title<sup>†</sup> Integrated Nutritional Sciences II

<sup>†</sup>If title is longer than 24 characters (including spaces), write a sensible title (24 characters or less) for use on transcripts:

Integrated NutrSci II

5. Current number of credit hours: 4 Proposed number of credit hours: 3

6. Currently, is this course repeatable? YES  NO  If YES, current maximum credit hours: \_\_\_\_\_

Proposed to be repeatable? YES  NO  If YES, proposed maximum credit hours: \_\_\_\_\_

7. Current grading system:  Letter (A, B, C, etc.)  Pass/Fail

Proposed grading system:  Letter (A, B, C, etc.)  Pass/Fail

8. Courses must be described by at least one of the categories below. Include the number of actual contact hours per week for each category, as applicable.

Current:

( ) CLINICAL ( ) COLLOQUIUM ( ) DISCUSSION ( ) LABORATORY (4) LECTURE

( ) INDEPEND. STUDY ( ) PRACTICUM ( ) RECITATION ( ) RESEARCH ( ) RESIDENCY

( ) SEMINAR ( ) STUDIO ( ) OTHER – Please explain: \_\_\_\_\_

Proposed:

( ) CLINICAL ( ) COLLOQUIUM ( ) DISCUSSION ( ) LABORATORY (3) LECTURE

( ) INDEPEND. STUDY ( ) PRACTICUM ( ) RECITATION ( ) RESEARCH ( ) RESIDENCY

( ) SEMINAR ( ) STUDIO ( ) OTHER – Please explain: \_\_\_\_\_

9. Requested effective date (term/year): Spring / 2009

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Proposed teaching method (if applicable):  Community-Based Experience  Service Learning Component  Both


11. Current cross-listing:  N/A ASC 602 Animal Sciences  
Prefix and Number NAME of current cross-listing DEPARTMENT

ROBERT J. HARMON

a. Proposed - REMOVE the current cross-listing:

Robert J. Harmon

b. Proposed - ADD a cross-listing: CNU 602  
Prefix and Number

  
Signature of chair of proposed cross-listing department

12. Current prerequisites: BCH 401G

Proposed prerequisites:

IBS 601

PGY 206

13. Current Bulletin description: Detailed study of the properties, metabolism, biochemical and physiological functions and interactions of vitamins and minerals, and their relationships to deficiency symptoms and toxicity.

Proposed Bulletin description:

*Integrated study of the properties, metabolism, biochemical and physiological functions and interactions of vitamins and minerals, and their relationships to chronic diseases, deficiency symptoms and toxicity.*

14. What has prompted this change? The etiology and management of chronic diseases related to the nutrient being studied (e.g. calcium and osteoporosis) will be integrated into the course rather than being taught separately as previously (in CNU 701, Nutrition and Chronic Diseases).

15. If there are to be significant changes in the content or teaching objectives of this course, indicate changes: Lectures covering basic biochemistry will be deleted. New lectures on chronic diseases related to the nutrient being studied (e.g calcium and osteoporosis; sodium and high blood pressure) will be added.

16. Please list any other department that could be affected by the proposed change: Clinical Nutrition, Animal Sciences

17. Will changing this course change the degree requirements for ANY program on campus?  YES  NO  
If YES<sup>‡</sup>, list below the programs that require this course:  
Nutritional Sciences M.S. and Ph.D. programs

<sup>‡</sup>In order for the course change to be considered, program change form(s) for the programs above must also be submitted.

18. Is this course currently included in the University Studies Program?  Yes  No

19.  Check box if changed to If changed to 400G- or 500-level, you must include a syllabus showing differentiation for undergraduate and graduate students by (i) requiring additional assignments by the graduate students; and/or (ii) the

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400G or 500. establishment of different grading criteria in the course for graduate students. (See SR 3.1.4)

20. Within the department, who should be contacted for further information on the proposed course change?

Name: Howard P. Glauert Phone: 257-7789 Email: hglauert@uky.edu

21. Signatures to report approvals:

12/19/2007

DATE of Approval by Department Faculty

*Donna Bueckner*  
4-28-08

DATE of Approval by College Faculty

3-10-08

\*DATE of Approval by ~~Undergraduate~~

Curriculum Committee

\*DATE of Approval by Graduate Council

7/15/08

\*DATE of Approval by Health Care Colleges Council (HCCC)

\*DATE of Approval by Senate Council

\*DATE of Approval by the University Senate

Lisa Cassis

printed name

*Lisa Cassis*

Reported by Department Chair

signature

JAY A. PERMAN, MD

printed name

*Jay A. Perman*

Reported by College Dean

4-29-08

signature

C. DARRELL JENNINGS, MD

printed name

*C. Darrell Jennings*

Reported by Undergraduate Council Chair

signature

Curriculum Committee

printed name

Reported by Graduate Council Chair

signature

*Heidi Anderson*

printed name

*Heidi Anderson*

Reported by Health Care Colleges Council Chair

signature

Reported by Office of the Senate Council

Reported by the Office of the Senate Council

\*If applicable, as provided by the *University Senate Rules*. (<http://www.uky.edu/USC/New/RulesandRegulationsMain.htm>)

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Excerpt from *University Senate Rules*:

SR 3.3.0.G.2: **Definition.** A request may be considered a minor change if it meets one of the following criteria:

- a. change in number within the same hundred series;
- b. editorial change in the course title or description which does not imply change in content or emphasis;
- c. a change in prerequisite(s) which does not imply change in content or emphasis, or which is made necessary by the elimination or significant alteration of the prerequisite(s);
- d. a cross-listing of a course under conditions set forth in SR 3.3.0.E;
- e. correction of typographical errors.

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Nutritional Sciences M.S. and Ph.D. programs

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18. Is this course currently included in the University Studies Program? [ ] Yes [X] No

19. [ ] Check box if changed to 400G or 500. If changed to 400G- or 500-level, you must include a syllabus showing differentiation for undergraduate and graduate students by (i) requiring additional assignments by the graduate students; and/or (ii) the establishment of different grading criteria in the course for graduate students. (See SR 3.1.4)

20. Within the department, who should be contacted for further information on the proposed course change?

Name: Howard P. Glauert Phone: 257-7789 Email: hglauert@uky.edu

21. Signatures to report approvals:

12/19/07 DATE of Approval by Department Faculty

Karen D. Jeff, Ph.D. Reported by Department Chair (with signature)

1/28/08 DATE of Approval by College Faculty

Sharon R. Stewart Reported by College Dean (with signature)

\*DATE of Approval by Undergraduate Council

/ Reported by Undergraduate Council Chair (signature)

\*DATE of Approval by Graduate Council

/ Reported by Graduate Council Chair (signature)

\*DATE of Approval by Health Care Colleges Council (HCCC)

/ Reported by Health Care Colleges Council Chair (signature)

\*DATE of Approval by Senate Council

/ Reported by Office of the Senate Council

\*DATE of Approval by the University Senate

/ Reported by the Office of the Senate Council

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e. correction of typographical errors.

## **NS/ASC 602: Integrated Nutritional Sciences II Course Syllabus**

**Course Description:** The material covered in NS/ASC 601 consists of detailed study of the properties, metabolism, biochemical and physiological functions and interactions of vitamins and minerals, and their relationships to deficiency symptoms and toxicity.

**Course format and attendance policy:** Schedule class sessions will include lecture presentation (mainly) and/or in class presentations of case studies/relevant research articles. Attendance at class sessions is expected. You are responsible for material covered in class sessions that you miss.

You are encouraged to ask relevant questions before, during and after class sessions. For questions that cannot be adequately addressed during this time, appointments are suggested with course faculty.

**Prerequisites:** IBS 601 and PGY 206

**Required Textbook:**

- Modern Nutrition in Health and Disease, 10<sup>th</sup> Edition, edited by Shils, Shike, Ross, Caballero, and Cousins. Lippincott Williams & Wilkins, Philadelphia, 2006.

**Examinations:** There will be four (4) exams for this course (3 exams during the semester and one final exam). Each section will be worth 100 points, totaling 400 points. Some instructors may require in-class presentations or class discussion of case studies or research papers as part of evaluations. The format for the examinations will be varied and may include objective questions (e.g. multiple choice, matching, true-false), short answer questions, essay questions, take-home questions, etc. Examinations (including the final exam) will cover material since the previous examination. However, an understanding of the principles covered in this course as well as basic biochemistry will be necessary to adequately handle questions.

All exams are taken in accordance with the University honor code. You should make every effort not to miss an exam. In the event that an exam must be missed, you must contact the course coordinator before the examination.

**Course grading:** The total number of possible points in the course is 500. Final letter grades will be assigned by the Course Coordinator. The approximate grading scale to be used will be as listed below. However, curving of grades around these values will be at the discretion of the course coordinator.

A:	360 - 400
B:	320 - 359.9
C:	280 - 319.9
E:	< 280

Additional policies related to this course have been established by the University Senate for all University of Kentucky students and can be found in the booklet Student Rights and Responsibilities, which is available to all students through the Dean of Students Office. Policies are also described in the Nutritional Sciences student handbook.

## **Lecture schedule (approximate lecture hours)(corresponding Shils chapters)**

1. Bones, teeth, connective tissue
  - a. Calcium, phosphorus, vitamin D, fluorine, magnesium (5h)(9,10,11,20)
  - b. Osteoporosis--etiology and management(2h) (86)
2. Electrolytes, water, acid-base balance (3h)(8)
  - a. Hypertension/CHF--etiology and management(2h)(68,69)
  - c. Renal disease--etiology and management(2h)(94)
3. Blood and anemia
  - a. Iron, copper, folic acid, vitamin B-12, B6, vitamin K (4h)(12,14,22,28)
  - b. Nutritional aspects of hematologic diseases (2h) (92)
4. Dietary antioxidants
  - a. Oxidative stress (2h) (44)
  - b. Essential antioxidants: vitamin C, vitamin E, selenium (2h)(16,21,31)
  - c. Antioxidant phytochemicals (2h)(37)
  - d. Antioxidant defense system/immune and rheumatic disease (2h) (43,85)
  - e. Nutrition and cancer (etiology and treatment) (3h)(80,81,82)
5. Vitamins as coenzymes in CHO, lipid, and amino acid metabolism: thiamin, riboflavin, niacin, pantothenic acid, biotin, choline, vitamin B-6 (4h) (23,24,25,26,27,30)
6. Vitamin A and carotenoids (3h) (19)
7. Minerals as cofactors or metalloenzymes: zinc, manganese, chromium, molybdenum.(3h) (13,17a,17b,18)
8. Iodine (1h) (15)
9. Other compounds with health relevance: carnitine, homocysteine, cysteine, taurine, glutamine, arginine, nitric oxide (3h) (33,34,35,36)