

## 1. General Information

1a. Submitted by the College of: HEALTH SCIENCES

Date Submitted: 2/14/2013

1b. Department/Division: Clinical Nutrition

1c. Contact Person

Name: D. Travis Thomas

Email: [dth225@uky.edu](mailto:dth225@uky.edu)

Phone: 859-218-0863

Responsible Faculty ID (if different from Contact)

Name: Geza Bruckner

Email: [gbruckn@email.uky.edu](mailto:gbruckn@email.uky.edu)

Phone: 859-218-0859

1d. Requested Effective Date: Specific Term/Year <sup>1</sup> Spring 2014

1e. Should this course be a UK Core Course? No

## 2. Designation and Description of Proposed Course

2a. Will this course also be offered through Distance Learning?: No

2b. Prefix and Number: HHS 400

2c. Full Title: Nutrition for Physical Activity, Injury Prevention, and Rehabilitation

2d. Transcript Title: Nutrition for Activity, Injury and Rehab

2e. Cross-listing: CNU 400

2f. Meeting Patterns

LECTURE: 2

2g. Grading System: Letter (A, B, C, etc.)

2h. Number of credit hours: 2

2i. Is this course repeatable for additional credit? No

If Yes: Maximum number of credit hours:

If Yes: Will this course allow multiple registrations during the same semester?

2j. Course Description for Bulletin: This course will acquaint students with general concepts in nutrition that relate to physical activity, injury prevention and rehabilitation. The content of the course is organized in such a way that students can progress logically from knowledge of basic human nutrition processes to the specific nutrition related issues commonly observed in physically active individuals and nutritional needs to prevent injury and aid healing following injury.

2k. Prerequisites, if any: Admission into the Human Health Sciences Undergraduate Program OR consent of instructor; 200 level physiology or equivalent

2l. Supplementary Teaching Component:

3. Will this course taught off campus? No

If YES, enter the off campus address:

4. Frequency of Course Offering: Spring,

Will the course be offered every year?: Yes

If No, explain:

5. Are facilities and personnel necessary for the proposed new course available?: Yes

If No, explain:

6. What enrollment (per section per semester) may reasonably be expected?: 35

7. Anticipated Student Demand

Will this course serve students primarily within the degree program?: Yes

Will it be of interest to a significant number of students outside the degree pgm?: Yes

If Yes, explain: [var7InterestExplain]

8. Check the category most applicable to this course: Not Yet Found in Many (or Any) Other Universities ,

If No, explain:

9. Course Relationship to Program(s).

a. Is this course part of a proposed new program?: No

If YES, name the proposed new program:

b. Will this course be a new requirement for ANY program?: No

If YES, list affected programs:

10. Information to be Placed on Syllabus.

a. Is the course 400G or 500?: No

b. The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable, from 10.a above) are attached: Yes

## Distance Learning Form

Instructor Name:

Instructor Email:

Internet/Web-based: No

Interactive Video: No

Hybrid: No

1.How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations?

2.How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, assessment of student learning outcomes, etc.

3.How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc.

4.Will offering this course via DL result in at least 25% or at least 50% (based on total credit hours required for completion) of a degree program being offered via any form of DL, as defined above?

If yes, which percentage, and which program(s)?

5.How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting?

6.How do course requirements ensure that students make appropriate use of learning resources?

7.Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program.

8.How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/or receipt of the course, such as the Information Technology Customer Service Center (<http://www.uky.edu/UKIT/>)?

9.Will the course be delivered via services available through the Distance Learning Program (DLP) and the Academic Technology Group (ATL)? NO

If no, explain how student enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology.

10.Does the syllabus contain all the required components? NO

11.I, the instructor of record, have read and understood all of the university-level statements regarding DL.

Instructor Name:

SIGNATURE|KOSKAF0|Karen O Skaff|Dept approval for ZCOURSE\_NEW HHS 400|20120921

SIGNATURE|PNASH|Phyllis J Nash|College approval for ZCOURSE\_NEW HHS 400|20120924

SIGNATURE|JDLIND2|Jim D Lindsay|HCCC approval for ZCOURSE\_NEW HHS 400|20121101

SIGNATURE|PNASH|Phyllis J Nash|Approval resent to college for ZCOURSE\_NEW HHS 400|20121219

SIGNATURE|JDLIND2|Jim D Lindsay|HCCC approval for ZCOURSE\_NEW HHS 400|20130111

SIGNATURE|JMETT2|Joanie Ett-Mims|Undergrad Council approval for ZCOURSE\_NEW HHS 400|20130111

University of Kentucky College of Health Sciences (CHS)  
Human Health Sciences (HHS) Undergraduate Degree Program

**HHS/Clinical Nutrition (CNU) 400 (2 Credit Hours):  
Nutrition for Physical Activity, Injury Prevention, and Rehabilitation**

**Course Prerequisites:** Admission to HHS undergraduate degree program OR consent of instructor, 200 level physiology or equivalent.

**Room/Time:** CTW Rm: TBA Time: TBA

**Instructor Contact Information**

**Instructor Name:** Travis Thomas, PhD, RD, CSSD, LD, CSCS

**Preferred method for reaching instructor:** email

**Office Phone Number:** 859-218-0863

**Office Address:** 209B CTW building

**UK Email:** [dth225@uky.edu](mailto:dth225@uky.edu)

**Office Hours:** as scheduled via email

**Course Description**

**Overview:** This course will acquaint students with general concepts in nutrition that relate to physical activity, injury prevention and rehabilitation. The content of the course is organized in such a way that students can progress logically from knowledge of basic human nutrition processes to the specific nutrition related issues commonly observed in physically active individuals and nutritional needs to prevent injury and aid healing following injury.

**Student Learning Outcomes:** Upon completion of this course, the student will be able to:

Student Goals and Objectives for HHS/CNU 400:

1. Explain the changing environment of clinical nutrition and the role of nutrients during metabolic stress, trauma, and rehabilitation.
2. Understand the physiology of target tissues, cells, and hormones involved in sports rehabilitation.
3. Formulate an understanding of factors that influence energy and macronutrient prescription during injury, illness, and rehabilitation.
4. Critically examine from current research, the impact of pre/during/post exercise nutrition interventions on acute and chronic sport performance, body composition and injury prevention.
5. Explain the role vitamins and minerals play in injury prevention, illness, and rehabilitation.
6. Understand the physiology of inflammation and how inflammation may be modulated by dietary intake.
7. Provide logical and rational advice on emerging bioflavonoids, nutraceuticals, herbal therapies, and other functional food components as they relate to injury, illness, and rehabilitation.
8. Provide experience working and communicating with classmates to discuss and present emerging scientific evidence in the field of sports nutrition as it relates to injury prevention and rehabilitation.

**Teaching Strategies:** This course will utilize lectures, case studies, and student group lectures to facilitate student learning.

**Required Material:** No required textbook. See suggested references and web resources below

**Anticipated Course Schedule**

<b>Date</b>	<b>Class #</b>	<b>Topic</b>
		Course Overview and Group Presentation topics <b>(1 hour)</b>
		Perspective on Clinical Nutrition, normal and trauma induced metabolic changes and therapeutic use of nutrients <b>(1 hour)</b>
		Connective and Musculoskeletal tissues and macromolecules <b>(1 hour)</b>
		Physiology of Inflammation: Dietary strategies to attenuate inflammatory response during injury and rehabilitation <b>(1 hour)</b>
		Fatty acid intake for inflammation and recovery <b>(1 hour)</b>
		<b>Exam 1 (1 hour)</b>
		Cell types and hormones involved in musculoskeletal and connective tissue healing <b>(1 hour)</b>
		Common Athlete injuries and Energy and Macronutrient needs to support injury prevention <b>(1 hour)</b>
		Energy and Macronutrient needs to support injury rehabilitation in multiple sports <b>(2-1 hour classes)</b>
		Advanced Applied Nutrient Intake Timing Strategies for injury prevention and recovery <b>(1 hour)</b>
		Student Presentations <b>(1 hour)</b>
		Common Athlete injuries and Vitamin needs to support injury prevention <b>(1 hour)</b>
		Vitamin needs to support injury rehabilitation in multiple sports <b>(1 hour)</b>
		Student Presentations <b>(1 hour)</b>
		<b>Exam 2 (1 hour)</b>
		Emerging bioflavonoids, nutraceuticals, herbal therapies, and other functional food components for rehabilitation <b>(1 hour)</b>
		Emerging bioflavonoids, nutraceuticals, herbal therapies, and other functional food components for rehabilitation- part 2 <b>(1 hour)</b>
		Student Presentations <b>(1 hour)</b>
		Special Topics/Promoting Weight Management in Sport <b>(1 hour)</b>
		Special Topics/Disordered Eating in Sport <b>(1 hour)</b>
		Common Athlete injuries and Mineral needs to support injury prevention <b>(1 hour)</b>
		Mineral needs to support injury rehabilitation in multiple sports <b>(1 hour)</b>
		Applied nutrition strategies for acute injuries/conditions <b>(1 hour)</b>
		Applied nutrition strategies for chronic injuries/conditions <b>(2-1 Hour classes)</b>
		Student Presentations <b>(1 hour)</b>
		Exam Review <b>(1 hour)</b>
		<b>Final Exam (2 hours)</b>

## Evaluation

A. There will be **3 unannounced quizzes** (short-answer and fill-in-the-blank format); each worth 100 points; the **lowest quiz score will be dropped**. The **average for the 2 remaining quiz scores will contribute to 20%** of your grade. Quizzes will be based on lectures, case studies, and classroom discussions.

B. **There will be three examinations**, all of which will be objective multiple choice format covering lectures, case studies, and discussions from class. Each exam is designed to be 50 minutes in length.

**Grades:**

<b>Exam I</b>	<b>=20%,</b>
<b>Exam II</b>	<b>=20%,</b>
<b>Final Exam</b>	<b>=20% (date, time, location-to be announced)</b>

## C. Group Presentation: 20%

Presentations Policy: (NOTE: depending on class size, course content may be modified at the discretion of the instructor to accommodate these presentations): Each group of students will be expected to submit a detailed outline regarding their lecture material 3 WEEKS PRIOR to their assigned lecture period (**NOTE! Students are responsible for setting the meeting time via email with the instructor**) and to meet again with the instructor 1 WEEK PRIOR to the lecture for an in-depth discussion/presentation of the material to be covered. Groups will be expected to provide 1 WEEK PRIOR to the lecture date the following:

1.) Learning objectives

2.) Detailed handout for each student which will include up to date reference material

3.) Test questions and answers regarding their lecture material that may be used on the final exam.

**NOTE Regarding Student Lectures:** If the above time line is not adhered to there will be 5 points taken off the total score for each day that the material is late.

Student(s) are expected to receive instructor approval on their lecture topic prior to beginning the project.

## Grading Criteria

A = 90-100 %  
B = 80-89 %  
C = 70-79 %  
D = 60 - 69 %  
E = 59% and below

## Mid-term Grade

Mid-term grades will be posted in myUK by the deadline established in the Academic Calendar (<http://www.uky.edu/Registrar/AcademicCalendar.htm>)

## Suggested References and Web Resources:

Reference Material (reserved in rm 209E, CHS): **Policy - photocopied material and books need to be signed out and returned in 48 hours.**

*Nutrition Applied to Injury Rehabilitation and Sports Medicine.* Bucci LR. CRC Press, 1994.

*Advanced Nutrition and Human Metabolism* (eds. Gropper SS, Smith JLL and Groff JL) Thomson Wadsworth, 2005

*Modern Nutrition in Health and Disease* (eds. Shils ME., Olson JA., and Shike M.) 10th edition, Lea and Febiger publishers, 2006

Suggested Texts and Publications:

Tipton KD. Nutrition for Acute Exercise-Induced Injuries *Ann Nutr Metab* 2010;57(suppl 2):43–53

Websites of Interest:

*Healthy Human 2010* <http://www.healthypeople.gov/About>

*Gatorade Sports Science Institute* <http://www.gssiweb.com/>

*Dietary Guidelines for Americans* <http://www.cnpp.usda.gov/dietaryguidelines.htm>

*Nutrient Data Laboratory Food Composition Data* [http://www.ars.usda.gov/main/site\\_main.htm?modecode=12354500](http://www.ars.usda.gov/main/site_main.htm?modecode=12354500)

*Sports, Cardiovascular and Wellness Diet Practice Group of the Academy of Nutrition and Dietetics*  
[www.scandpg.org](http://www.scandpg.org)

*Food and Nutrition Information Center* [http://fnic.nal.usda.gov/nal\\_display/index.php?tax\\_level=1&info\\_center=4](http://fnic.nal.usda.gov/nal_display/index.php?tax_level=1&info_center=4)

*Your Health Rand Survey* <http://www.rand.org/health/index.html>

*Diet Analysis* <http://www.nutritiondata.com/index.html>

*Sports Nutrition* [http://sportsmedicine.about.com/od/sportsnutrition/Sports\\_Nutrition.htm](http://sportsmedicine.about.com/od/sportsnutrition/Sports_Nutrition.htm)

*Ask the Dietitian* <http://www.dietitian.com/sportnut.html>

*USDA Fitness and Sports Nutrition*

[http://fnic.nal.usda.gov/nal\\_display/index.php?info\\_center=4&tax\\_level=2&tax\\_subject=257&level3\\_id=0&level4\\_id=0&level5\\_id=0&topic\\_id=1358&placement\\_default=0](http://fnic.nal.usda.gov/nal_display/index.php?info_center=4&tax_level=2&tax_subject=257&level3_id=0&level4_id=0&level5_id=0&topic_id=1358&placement_default=0)

*Australian Institute of Sport* <http://www.ausport.gov.au/ais/nutrition>

Additional Web sites will be shared throughout the semester.

**Course Policies**

**Attendance:**

Information from videos, guest lectures, readings and open class discussions is likely to appear on quizzes/examinations. Regular class attendance is expected and essential for performing well in this course.

**Excused Absences:**

Students need to notify the professor of absences prior to class when possible. S.R. 5.2.4.2 defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit “reasonable cause for nonattendance” by the professor.

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (859-257-2754).

**Make-up opportunity:**

Make-up exams will only be considered for excused absences with appropriate documentation of proof.

**Verification of Absences:**

Students may be asked to verify their absences in order for them to be considered excused. Senate Rule 5.2.4.2 states that faculty have the right to request “appropriate verification” when students claim an excused absence because of illness or death in the family. Appropriate notification of absences due to university-related trips is required prior to the absence.

### **Accommodations due to disability**

If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, email address: [jkarnes@email.uky.edu](mailto:jkarnes@email.uky.edu)) for coordination of campus disability services available to students with disabilities.

### **Academic Integrity**

**Policies related to excused absences, cheating/plagiarism, withdrawal, incomplete, final exams, and common exams can be found in your copy of Student Rights and Responsibilities.**

It is expected that students at UK will refrain from plagiarism and cheating. Plagiarism and cheating are serious breaches of academic conduct and may result in permanent dismissal. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website:

<http://www.cs.uky.edu/%7Epaulp/Plagiarism.htm>. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited. Part II of Student Rights and Responsibilities (available online <http://www.uky.edu/StudentAffairs/Code/part2.html>) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about the question of plagiarism involving their own work, they are obliged to consult their instructors on the matter before submission.

When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate acknowledgement of the fact, the students are guilty of plagiarism. Plagiarism includes reproducing someone else's work, whether it be a published article, chapter of a book, a paper from a friend or some file, or something similar to this. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work which a student submits as his/her own, whoever that other person may be.

Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student and the student alone. When a student's assignment involves research in outside sources of information, the student must carefully acknowledge exactly what, where and how he/she employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. If you make simple changes while leaving the organization, content, and phraseology intact is considered plagiaristic. However, nothing in these Rules shall apply to ideas which are so generally and freely circulated as to be a part of the public domain (Section 6.3.1).

### **Classroom Behavior, Decorum and Civility:**

Classroom demeanor is of utmost importance. The University and College of Health Sciences are committed to respecting the dignity of all and to value differences among members of our academic community. Although discussion and debate are essential to discovery, it is the right of all involved to respectfully disagree from time-to-time. Students have the right to take reasoned exception and to voice opinions contrary to those offered by the instructor and/or other students (S.R. 6.1.2). Equally, a faculty member has the right -- and the responsibility to ensure that all academic discourse occurs in a context characterized by respect and civility. Obviously, the accepted level of civility would not include attacks of a personal nature or statements denigrating another on the basis of race, sex, religion, sexual orientation, age, national/regional origin or other such irrelevant factors.