

Please complete the following and return electronically to colonnadeplan@wku.edu.

FACS Proposal to add HMD 211 Human Nutrition under Connections - Systems

1. What course does the department plan to offer in *Connections*? Which subcategory are you proposing for this course? (Social and Cultural, Local to Global, Systems)
The Family & Consumer Sciences Department plans to offer HMD 211 Human Nutrition in the Systems subcategory.
2. How will this course meet the specific learning objectives of the appropriate sub-category? Please address **all** of the learning outcomes listed for the appropriate subcategory.

The human body is a complex system, and nutrients are essential for sustaining this system. One of the key aspects of this course is the exploration of systems in the body as they specifically relate to the study of human nutrition: circulatory (cardiovascular and lymphatic), nervous, endocrine, immune, digestive, reproductive, and excretory systems.

Analyze how systems evolve.

Multiple complex systems make up the human body. Human Nutrition is the study of how these smaller components (i.e. nutrients) become a part of and impact the larger system (i.e. the human body). Individual food choices, which ultimately determine nutrient intake, have significant impacts on the evolution of body systems. Students learn in this class the power of food choices. For example, poor food choices can result in nutrient deficiencies, toxicities, or imbalances while proper food choices can be used to prevent chronic diseases (e.g. heart disease, diabetes, osteoporosis) or at least delay the progression of diseases. In addition to studying human body systems in this course, students will also be exposed to how current research is used to change nutrition recommendations/food guidance systems and to provide more insight on the factors related to disease development.

Compare the study of individual components to the analysis of entire systems.

In order to identify how nutrition affects the various body systems, students must know the six classes of nutrients (individual components), how these nutrients are broken down in the digestive system, and how these nutrients interact and function in the body (metabolism). Ultimately, a person's overall nutritional state is determined by the consumption of these essential nutrients.

The overriding theme of this class is to understand the actions of nutrients as they affect the human body (the entire system). Each type of body system is impacted by nutrient intake and simultaneously determines how each nutrient is used.

Evaluate how system-level thinking informs decision-making, public policy, and/or the sustainability of the system itself.

Decision-making

As a result of taking this class, students will know the essential nutrients and their relationship to the whole body system, which will allow students to make informed decisions regarding nutrition choices as individuals. Students will be provided tools to aid them in making dietary choices, such as national nutrition guidelines and sources for reliable nutrition information.

Public policy

Students will also be exposed to how scientific evidence is used to generate nutrition policies. One prominent nutrition problem in the U.S. is the obesity of adults and children. Obesity is not

only an individual problem, but also a public health problem in that there are implications on the social, financial and health care systems. Thus, students will see examples of how research is used to guide public policy changes that ultimately influence food choices made by individuals. In addition, National Nutrition & Health Goals, which are science-based, national objectives for improving the health of all Americans, will also be addressed.

Sustainability of the system

Although the human body system is the focus of this course, students will also know how the food supply system (local and global) impacts individual food choices. By engaging students in a discussion and investigation of the food supply and food safety issues, students will be prepared to consider the broader scope of the implications of nutrition/health policy on people everywhere. By becoming more informed of the impact of simple decisions on what and when to eat, students will be better equipped to address issues related to food availability and dietary intake.

By taking this course, students will be equipped to know how to make better nutrition choices and reduce the risk of chronic diseases. This ultimately provides increased sustainability of health for individuals.

Below is a list of chapters to be covered in HMD 211 Human Nutrition along with topics related to the Systems subcategory and the specific Systems learning objectives met by each chapter:

Chapters	Systems Perspectives	Systems Objectives
Chapter 1: What is Nutrition?	Discussion: How does nutrition and genetics impact the body systems and disease expression?	1, 2
Chapter 2: Tools for Healthy Eating	Discussion: Nutrition guidelines and food guidance systems: evaluation of the food supply farm to table.	1, 2, 3
Chapter 3: Basics of Digestion	Discussion: The digestive system, disorders of the digestive tract, and how they relate to the other body systems.	1, 2
Chapter 4: Carbohydrates: Sugars, Starches & Fiber	Discussion: Carbohydrate utilization in the body; Digestion, absorption, and utilization of different carbohydrate types and sources; Diabetes types, prevalence, and management in the US healthcare system.	1, 2
Chapter 5: Fats, Oils & Other Lipids	Discussion: Fat digestion, metabolism, and the effects of fat on the cardiovascular system.	1, 2

Chapter 6: Proteins and Amino Acids	Discussion: Protein digestion, absorption, metabolism, and requirements to maintain the body system; Protein requirements to maintain the musculoskeletal and circulatory systems; Utilization of different types of protein; Protein Supplementation and its impact on healthy and compromised body systems.	1, 2
Chapter 7: Vitamins	Discussion: Impact of food sources for vitamins, fortification, and supplementation on health; Vitamins role in energy production pathways; Phytochemical and functional food utilization in the body processes.	1, 2
Chapter 8: Minerals & Water	Discussion: Impacts of minerals on the hematological, circulatory, and musculoskeletal systems; Sodium, salt sensitivity and high blood pressure in the human body; Implications and effects of processed and convenience foods.	1, 2, 3
Chapter 9: Alcohol	Discussion: Impacts of moderate alcohol consumption, binge drinking, and alcohol intake and the implications for a healthy body system.	2, 3
Chapter 10: Weight Management	Discussion: Obesity, risk levels, and the impact on individual health and the national health care system; Eating disorders and health implications.	1, 2, 3
Chapter 11: Nutrition & Fitness	Discussion: The impact and influence of exercise on the body system; Implications of lifestyle and physical activity levels on the healthcare system.	1, 2
Chapters 12 & 16: Consumerism: Farm to Table and Hunger at Home and Abroad	Discussion: Food Policy in the US: government regulatory systems and their impact on foods, availability, and safety; Food insecurity and government aid systems.	1, 2, 3
Chapters 14 & 15: Life Cycle Nutrition: Pregnancy through the Toddler Years	Discussion: Impact of nutrition and breastfeeding on maternal, fetal, and infant development.	1, 2

3. In addition to meeting the posted learning outcomes, how does this course contribute uniquely to the *Connections* category (i.e., why should this course be in Colonnade)? Discuss in detail.

The human body is the ultimate biological system, and nutrients are essential to sustaining that system. As stated earlier, multiple complex systems make up the human body. Nutrients are intimately involved in each of these systems, through digestion, absorption, metabolism, and body structure. Human Nutrition is the study of how these smaller components (i.e. nutrients) become a part of and impact the larger system (i.e. the human body).

Adequate nutrition is critical to the maintenance of good health; excesses and deficiencies of nutrients contribute to the development of disease, which not only impacts the individual system (i.e. the human body), but broader systems in society. For example, obesity and disease rates impact healthcare, health insurance, public policy and food guidance systems while food choices made by consumers impact food supply and agricultural systems. By understanding the role of nutrients in the maintenance of health, students are better prepared to not only make choices that maintain their own health, but also to solve and understand societal issues.

Eating is a universal and fundamental physical need that has implications for public policy, scientific research, human behavior and psychology. Human Nutrition is particularly suited to the *Connections* category because it builds on multiple disciplines including chemistry, biology, economics, psychology and anthropology among others. Rather than existing in isolation from other courses in the Colonnade, this course requires that students use knowledge from these other disciplines in order to understand nutrients, how they impact the human body and broader nutrition-related issues in our society and environment. This course in fact contributes to the development of informed, responsible, healthier citizens.

4. Please identify any prerequisites for this course. NOTE: Any prerequisites MUST be *Colonnade Foundations* or *Explorations* courses.

No prerequisite required

5. Syllabus statement of learning outcomes for the course. NOTE: In multi-section courses, the same statement of learning outcomes must appear on every section's syllabus.

Colonnade Connections Information for HMD 211:

Human Nutrition, HMD 211, may be taken to fulfill the Systems category of the *Connections* requirements at Western Kentucky University only after students have earned at least 21 hours in WKU Colonnade Program coursework or have achieved junior status; information and skills to improve understanding of various factors that enhance health, well-being, and quality of life are addressed.

Terminal Course Outcome: Students will be able to critically assess nutrition information in the media, evaluate their food choices for appropriate nutrient and calorie content, and relate food choices to chronic disease risk.

Course Objectives: By the end of this course, students will be able to:

- 1) Discuss the role of nutrition and other lifestyle choices in the prevention of disease to include the dangers of deficits and toxicities on human body systems.*
- 2) Identify the functions, properties, human requirements and food sources of essential nutrients.*

- 3) Discuss tools, such as the DRI, MyPlate, Exchange Lists, or other food guidance systems, and their role in selecting a nutritionally adequate diet.*
- 4) Identify nutritional needs at different stages in human growth and development.*
- 5) Examine the principles and ethics involved in making nutrition recommendations, emphasizing the importance of nutrition research and reliable sources of nutrition information.*
- 6) Explain the effects of foods and nutrients or lack thereof on the body's digestive, absorptive, metabolic, reproductive and excretory systems.*
- 7) Identify factors affecting food supply systems such as sustainability, government regulatory systems, and food insecurity. *
- 8) Evaluate food beliefs, food and nutrition fads and advertisements based on the principles of nutrition.

(The course objectives marked with an asterisk are linked to the Colonnade Connections objectives for a Systems course.)

6. Give a brief description of how the department will assess the course beyond student grades for these learning objectives.

Students will complete a survey at the end of the course. Questions administered within the exit survey will be used for assessment of student learning. The questions, selected by a faculty panel, will be administered to students in all sections of HMD 211. Questions selected will be linked to the specified course objectives (as stated in the syllabus) and those questions will be matched with the specific learning objectives of the Systems Connections subcategory of the Colonnade Program (as delineated below):

Systems Connections Subcategory	Course Objective (as stated in the syllabus)
<p>Analyze how systems evolve Students will specifically analyze how the human body system evolves. The human body is the ultimate biological system, and nutrients are essential to sustaining that system. Human Nutrition is the study of how these smaller components (i.e. nutrients) become a part of, and impact the larger system (i.e. the human body).</p>	<p>Discuss the role of nutrition and other lifestyle choices in the prevention of disease to include the dangers of deficits and toxicities on human body systems</p> <p>Identify nutritional needs at different stages in human growth and development</p>
<p>Compare the study of individual components to the analysis of entire systems By understanding the role of each individual nutrient in the wellbeing and maintenance of our body system, students will be able to analyze the system as a whole. Each individual nutrient plays an important role in the overall system and after understanding the interrelationship between the two, students will be better prepared to not only make choices that maintain their own health, but also to solve and understand societal issues.</p>	<p>Identify the functions, properties, human requirements and food sources of essential nutrients</p> <p>Explain the effects of foods and nutrients or lack thereof on the body's digestive, absorptive, metabolic, reproductive and excretory systems</p>
<p>Evaluate how system-level thinking informs decision-making, public policy, and/or the sustainability of the system itself Eating is a universal and fundamental physical</p>	<p>Discuss tools, such as the DRI, MyPlate, Exchange Lists, or other food guidance systems, and their role in selecting a nutritionally adequate diet</p>

<p>need that has implications for public policy, scientific research, human behavior and psychology. This course contributes to the development of informed, responsible, healthier citizens by interrelating the effect of nutrition/diet on healthcare, health insurance, public policy and food guidance systems, while food choices made by consumers impact food supply and agricultural systems.</p>	<p>Examine the principles and ethics involved in making nutrition recommendations, emphasizing the importance of nutrition research and reliable sources of nutrition information</p> <p>Identify factors affecting food supply systems such as sustainability, government regulatory systems, and food insecurity</p>
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Questions will be graded using a scoring rubric. Assessment goals will be for the overall mean to be >75%, and for each learning objective of the Systems Connections subcategory, the mean will be >75%. The faculty teaching the course will review the results to assess areas for potential improvement of instruction.

7. Please discuss how this course will provide a summative learning experience for students in the development of skills in argumentation and use of evidence.

The Human Nutrition course will provide students with the knowledge and critical thinking skills to evaluate food and nutrition information and recommendations. In addition, students are taught how to use and evaluate evidence, to distinguish between fact and opinion, and to identify credible nutrition sources. This course is summative in that its material is a culmination of many courses included in the Colonnade Foundations and Explorations categories, especially biology, chemistry, psychology, economics, and anthropology. For example, this course integrates topics of science, economics, communication, psychology, and health in order for students to make more informed decisions about their food intake, personal health, and overall well-being. As a result of this course, students will be equipped to provide evidence-based arguments and explanations for nutrition issues.

8. How many sections of this course will your department offer each semester?
Five to seven sections of Human Nutrition will be offered every semester (45-60 students per section)
9. Please attach sample syllabus for the course. PLEASE BE SURE THE PROPOSAL FORM AND THE SYLLABUS ARE IN THE SAME DOCUMENT.

HMD 211: Human Nutrition
Department of Family & Consumer Sciences
Western Kentucky University
Spring 2014

Instructor Information

Karen Mason, Ph.D., R.D.
 Academic Complex 209A
 270-745-3462
 karen.mason@wku.edu

Web address: <http://people.wku.edu/karen.mason/>

Office Hours: MW: 12:30 – 3:30 p.m.

R: 9:00 a.m. – 1:00 p.m. Additional office hours are available by appointment.

Course Information

Lectures: HMD 211, MWF 11:30 am-12:25 pm, Academic Complex 309A

Course Description: Study of nutrients essential to human life and well-being. Nutrients are studied relative to their function in metabolism, sources in food, and relationship to health.

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- 6) Explain the effects of foods and nutrients or lack thereof on the body's digestive, absorptive, metabolic, reproductive and excretory systems.*
- 7) Identify factor affecting food supply systems such as sustainability, government regulatory systems, and food insecurity. *
- 8) Evaluate food beliefs, food and nutrition fads and advertisements based on the principles of nutrition.

(The course objectives marked with an asterisk are linked to the Colonnade Connections objectives for a Systems course.)

Required text: Blake, Joan Salge. *Nutrition & You*, 2nd Edition. Pearson Benjamin Cummings, 2012. ISBN: 0805354522

Suggested text: Harkins, Charlene. *Nutrition & You Study Guide*, 1st Edition. Pearson Benjamin Cummings, 2008. ISBN: 0321696581

Special Instructional Materials: A calculator will be useful for solving example problems in class. For exams, students should have a calculator, a No. 2 pencil and a scantron (Form #2052 or #882-E). Students may NOT borrow a calculator from another classmate during an exam. No electronic devices, including cell phones, are allowed during an exam.

For Nutrition and Dietetics students: This class helps fulfill competencies (knowledge and skills) for Nutrition and Dietetics students set by the Academy of Nutrition & Dietetics. To identify competencies specific for this class please go to <http://www.wku.edu/facs/dietetics/>.

Grading/Evaluation

1. **Grades** will be assigned according to the total points achieved in the class as follows:

Grade	Points	%
A	407-455	90-100
B	362-406	80-89
C	316-361	70-79
D	271-315	60-69
F	Less than 271 points	<60

The allocation of points for the class will be:

Exam/assignment	Points Available	Your Score
Exam 1	100 points	
Exam 2	100 points	
Exam 3	100 points	
Exam 4	100 points	
Quizzes	25 points	
Diet Analysis	15 points	
Homework*	15 points	
Total	455 points	

*Homework points are subject to change.

All grades will be posted on WKU's Blackboard web site at <https://blackboard.wku.edu>.

2. Students are required to access the course's website on **WKU's Blackboard**. The course website will contain lecture notes, announcements, grades, assignments, exam preparation tips, and links to practice problems. The lecture outlines for each chapter will be posted in Blackboard at least two days before starting the respective chapter. An email will be sent when each lecture outline is ready to be printed.
3. Students are encouraged to check their **WKU email accounts** at least twice per week, as reminders about the class are sent to students' WKU email accounts periodically throughout the semester.
4. All **exams** will be multiple choice and true/false. Students will be given one hour to complete each exam. Exams will be given back for review. Students are encouraged to review any questions missed on exams. The midterm and final exams will be semi-comprehensive. Approximately 80% of the midterm will be new material and the remaining 20% will be from material covered from the first exam. The final exam (exam 4) will be derived from approximately 80% new material and the remaining 20% will be from material covered since the midterm. Students will be given tips before the midterm and final exams on how to prepare for the comprehensive section.
5. Students must be present for all exams. **Make-up exams** will be given to students with extenuating circumstances. Extenuating circumstances include sickness, serious illness, or death of an immediate family member. Athletes and students who accompany athletic teams for official purposes will also be excused for out-of-town games/meets. It is incumbent on the student to provide acceptable documentation to substantiate the absence. Absences for any other reason will be excused at the discretion of the instructor and will require proper documentation. Students who miss an exam due to an unexcused absence will automatically have 10 points deducted from the make-up exam score. Routine medical appointments (eye or dental exam – unless an emergency) and court appearances

(unless on jury duty) are not considered excusable absences. If a student misses an exam and does not contact the instructor within one week of the missed exam, the student will automatically receive a zero for that exam with no possibility of making up the exam.

6. Four announced **lecture quizzes** will be given throughout the semester. Questions will be based on lecture notes for the upcoming exam. Make-up quizzes will only be administered to students with an excused absence, and written documentation **MUST** be provided.
7. Students will be required to complete a 5 point **exit quiz**. The link to this quiz will be emailed to the students the last week of class. The confirmation page for the exit quiz should be printed and given to the instructor for full credit. This quiz is not graded on score, but on completion.
8. Instructions for the **homework assignments and the dietary analysis assignment** will be provided to the students at least 1 week before the assignments will be due. Late assignments will be penalized 1 point each day late.
9. **Class attendance** will be taken daily. Attendance will be considered when the final grade is determined. A borderline grade may be determined by attendance. No absences will boost a grade by up to, but no more than, 1 point. Thus, a final class average of 79.4% may be boosted to a "B" if NO absences have occurred; otherwise, a 79.4% is a "C". Students are recommended to obtain missed notes/announcements from fellow classmates when absent.
10. In addition to coming to class, each student will be expected to come to class on time. **Tardiness** will be recorded and will be factored into the assigning of grades, especially when a student has a borderline grade.
11. Occasionally unannounced **bonus quizzes** will be given. Students must be present to take the quizzes.
12. **Grades in the class** are final and will not be changed unless there is a computational error or error on the part of the instructor. If you need a certain grade in this course to maintain or increase your grade point average, you **MUST** put the appropriate amount of effort into the class.
13. Students are expected to be **professionally courteous** to the professor and peers. This includes turning off cell phones before coming to class, not being disruptive during class time, coming to class on time, and staying the entire 55 minutes of class.
14. **Technology in the classroom:**
 - **Silence your phone** when you enter the classroom. If you *must* take a call in an emergency, leave the room to do so, and re-enter discreetly. It would be best to alert the instructor before class if you are expecting an urgent call.
 - **No texting** or other messaging in class at any time. Anyone doing so will be dismissed for the day and will not receive credit for any uncompleted work.
 - **Laptops and tablets** should be used for academic purposes only. Any other use, or the creation of a distraction, will jeopardize your privilege to use them. During exams and quizzes, use of any of these devices will result in a grade of zero for the exam.

Lecture & Exam Schedule

Date	Topic	Reading (Text Chapter)
	Introduction & Syllabus	

January 27 – February 14	What is Nutrition? Tools for Healthy Eating The Basics of Digestion	Chapter 1 Chapter 2 Chapter 3
February 17	EXAM 1	Chapters 1-3
February 19 – March 21	Carbohydrates Fats, Oils, and Other Lipids Proteins and Amino Acids Life Cycle Nutrition	Chapter 4 Chapter 5 Chapter 6 Chapters 14,15
March 10–14	Spring Break	No class
March 24	EXAM 2	Chapters 4-6,14,15 (80%) Chapters 1-3 (20%)
March 26 – April 18	Weight Management Nutrition & Fitness Alcohol Vitamins	Chapter 10 Chapter 11 Chapter 9 Chapter 7
April 21	EXAM 3	Chapters 7,9,10,11
April 23 – May 9	Phytochemicals Nutrition & Cancer Minerals & Water Food Safety & Technology Consumerism and Hunger	Lecture Notes Lecture Notes Chapter 8 Chapter 13 Chapters 12,16
May 13 10:30 a.m.– 12:30 p.m.	FINAL EXAM	Chapters 8,12,13,16 and Notes (80%) Chapters 7,9,10,11 (20%)

Class schedule, reading assignments, and exam dates are subject to change.

Policies and Services

Academic Dishonesty

Students will be expected to do his/her own work for exams/quizzes and assignments. Failure to comply with this policy will result in a failing grade for the exam/assignment and, perhaps, the course. If caught cheating, the student will receive a minimum of a zero on the assignment/quiz/exam and the cheating incident will be reported to WKU's Office of Judicial Affairs. Copying answers on an assignment/quiz/exam is cheating. Taking an exam or quiz for someone else is cheating. Having someone else take an exam or quiz for you is cheating. Students should be aware of WKU's academic dishonesty policy (WKU Catalog, 2013-2014, page 32), which states: "Students who commit any act of academic dishonesty may receive from the instructor a failing grade in that portion of the coursework in which the act is detected or a failing grade in the course without possibility of withdrawal. The faculty member may also present the case to the Office of Judicial Affairs for disciplinary sanctions."

Academic Dishonesty includes the following:

Cheating—No student shall receive or give assistance not authorized by the instructor in taking an examination or in the preparation of an essay, laboratory report, problem assignment, or other project that is submitted for purposes of grade determination.

Plagiarism—To represent written work taken from another source as one's own is plagiarism. Plagiarism is a serious offense. The academic work of a student must be

his/her own. One must give any author credit for source material borrowed from him/her. To lift content directly from a source without giving credit is a flagrant act. To present a borrowed passage without reference to the source after having changed a few words is also plagiarism.

Student Disability Services

In compliance with university policy, students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Student Disability Services in DSU A-200 of the Student Success Center in Downing Student Union. The phone number is 745-5004 and email is sds@wku.edu.

Please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the Office for Student Disability Services.

Academic Assistance through The Learning Center

Should you require academic assistance with your WKU courses, The Learning Center (located in the Downing Student Union, A330) provides free supplemental education programs for all currently enrolled WKU students. TLC @ Downing Student Union and TLC @ FAC offers certified, one-on-one tutoring in over 200 subjects and eight academic skill areas by appointment or walk in. Online tutoring is offered to distance learners. TLC is also a quiet study area (with side rooms designated for peer-to-peer tutoring) and offers a thirty-two machine Dell computer lab to complete academic coursework. Additionally, TLC has four satellite locations. Each satellite location is a quiet study center and is equipped with a small computer lab. Please contact TLC @ Downing Student Union for more information or to schedule a tutoring appointment. (270)745-6254 or www.wku.edu/tlc

Hours of Operation:

TLC @ DUC

Sunday	4:00pm – 9:00 pm
Monday – Thursday	8:00am – 9:00pm
Friday	8:00am – 4:00pm

TLC @ FAC

Monday – Tuesday	1:00 pm – 7:00 pm
Wednesday – Thursday	9:00 am – 5:00 pm
Friday	2:00 pm – 4:00 pm

TLC @ Keen

Sunday – Thursday	6:00pm – 11:00pm
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TLC @ McCormack

Sunday – Thursday	6:00pm – 11:00pm
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TLC @ PFT

Sunday – Thursday	6:00pm – 11:00pm
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(PFT residents and their guests only)