

RECEIVED

MAR 7 2014

OFFICE OF THE
SENATE COUNCIL**1. General Information**

1a. Submitted by the College of: AGRICULTURE, FOOD AND ENVIRONMENT

Date Submitted: 2/14/2014

1b. Department/Division: Dietetics and Human Nutrition

1c. Contact Person

Name: Kelly Webber

Email: kelly.webber@uky.edu

Phone: 257-4351

Responsible Faculty ID (if different from Contact)

Name:

Email:

Phone:

1d. Requested Effective Date: Semester following approval

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: DHN 600

2c. Full Title: Research Methods in Nutrition and Food Systems

2d. Transcript Title: Research Methods

2e. Cross-listing:

2f. Meeting Patterns

LECTURE: 3

2g. Grading System: Graduate School Grade Scale

2h. Number of credit hours: 3

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: Students will study accepted research methodologies and scientific approaches in human nutrition and food systems. Emphasis is placed on understanding the research methods, study design, data collection, and evaluation of various nutrition related studies. Discussions include development of research aims and hypothesis, internal review board, collecting of primary and secondary data, measurement approaches, study designs, and key considerations in developing a thesis for publication.

2k. Prerequisites, if any: Admission to graduate program and selection of graduate faculty mentor with approved research topic.

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?: 12

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?: No

If Yes, explain: [var7InterestExplain]

8. Check the category most applicable to this course: Traditional – Offered in Corresponding Departments at Universities Elsewhere,

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|LGRABAU|Larry J Grabau|DHN 600 NEW College Review|20140226

SIGNATURE|ZNNIKO0|Roshan N Nikou|DHN 600 NEW Graduate Council Review|20140307

Courses	Request Tracking
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New Course Form

<https://myuk.uky.edu/sap/bc/soap/rfc?services=>

Generate R

[Open in full window to print or save](#)

Attachments:

Upload File

ID	Attachment
Delete 3070	DHN 600 Research Methodology in Nutrition and Food

First 1 Last

Select saved project to retrieve...

Get New

(*denotes required fields)

1. General Information

a. * Submitted by the College of: Submission Date:

b. * Department/Division:

c.

* Contact Person Name: Email: Phone:

* Responsible Faculty ID (if different from Contact): Email: Phone:

d. * Requested Effective Date: Semester following approval OR Specific Term/Year ¹

e.

Should this course be a UK Core Course? Yes No

If YES, check the areas that apply:

Inquiry - Arts & Creativity Composition & Communications - II

Inquiry - Humanities Quantitative Foundations

Inquiry - Nat/Math/Phys Sci Statistical Inferential Reasoning

Inquiry - Social Sciences U.S. Citizenship, Community, Diversity

Composition & Communications - I Global Dynamics

2. Designation and Description of Proposed Course.

a. * Will this course also be offered through Distance Learning? Yes ¹ No

b. * Prefix and Number:

c. * Full Title:

d. Transcript Title (if full title is more than 40 characters):

e. To be Cross-Listed ² with (Prefix and Number):

f. * Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours³ for each meeting pattern type.

<input checked="" type="checkbox"/> 3 Lecture	<input type="checkbox"/> Laboratory ¹	<input type="checkbox"/> Recitation	<input type="checkbox"/> Discussion
<input type="checkbox"/> Indep. Study	<input type="checkbox"/> Clinical	<input type="checkbox"/> Colloquium	<input type="checkbox"/> Practicum
<input type="checkbox"/> Research	<input type="checkbox"/> Residency	<input type="checkbox"/> Seminar	<input type="checkbox"/> Studio
<input type="checkbox"/> Other	If Other, Please explain: <input type="text"/>		

g. * Identify a grading system: Letter (A, B, C, etc.) Pass/Fail Graduate School Grade Scale

h. * Number of credits:

i. * Is this course repeatable for additional credit? Yes No

If YES: Maximum number of credit hours:

If YES: Will this course allow multiple registrations during the same semester? Yes No

j. * Course Description for Bulletin:

Students will study accepted research methodologies and scientific approaches in human nutrition and food systems. Emphasis is placed on understanding the research methods, study design, data collection, and evaluation of various nutrition related studies. Discussions include development of research aims and hypothesis, internal review board, collecting of primary and secondary data, measurement approaches, study designs, and key considerations in developing a thesis for publication.

k. Prerequisites, if any:

Admission to graduate program and selection of graduate faculty mentor with approved research topic.

l. Supplementary teaching component, if any: Community-Based Experience Service Learning Both

3. * Will this course be taught off campus? Yes No

If YES, enter the off campus address:

4. Frequency of Course Offering.

a. * Course will be offered (check all that apply): Fall Spring Summer Winter

b. * Will the course be offered every year? Yes No

If No, explain:

5. * Are facilities and personnel necessary for the proposed new course available? Yes No

If No, explain:

6. * What enrollment (per section per semester) may reasonably be expected? 12

7. Anticipated Student Demand.

a. * Will this course serve students primarily within the degree program? Yes No

b. * Will it be of interest to a significant number of students outside the degree pgm? Yes No

If YES, explain:

8. * Check the category most applicable to this course:

- Traditional -- Offered in Corresponding Departments at Universities Elsewhere
 Relatively New -- Now Being Widely Established
 Not Yet Found in Many (or Any) Other Universities

9. Course Relationship to Program(s).

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

If YES, name the proposed new program:

b. * Will this course be a new requirement ²for ANY program? Yes No

If YES ², list affected programs::

10. Information to be Placed on Syllabus.

a. * Is the course 400G or 500? Yes No

If YES, the *differentiation for undergraduate and graduate students must be included* in the information required in 10.b. You must include: (i) identify additional assignments by the graduate students; and/or (ii) establishment of different grading criteria in the course for graduate students. (See SR

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

- Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.
- The chair of the cross-listing department must sign off on the Signature Routing Log.
- In general, undergraduate courses are developed on the principle that one semester hour of credit represents one hour of classroom meeting per week for a semester, exclusive of any laboratory meeting. Laboratory meeting, generally, is two hours per week for a semester for one credit hour. (from SR 5.2.1)
- You must also submit the Distance Learning Form in order for the proposed course to be considered for DL delivery.
- In order to change a program, a program change form must also be submitted.

Rev 8/09

Submit as New Proposal Save Current Changes

DHN 600 – 001 Research Methodology in Nutrition and Food Systems

Department Human Nutrition and Dietetics

Spring and/or Fall Semester, Scheduled meeting days, time and place TBD

Funkhouser 208

Instructor: Alison Gustafson, PhD, MPH, RD

Office: 206G Funkhouser

Phone: 859-257-1309

E-mail: Alison.gustafson@uky.edu, preferred method of contact

Office Hours: Mon/Wed 1-2

Course Description:

Students will study accepted research methodologies and scientific approaches in human nutrition and food systems. Emphasis is placed on understanding the research methods, study design, data collection, and evaluation of various nutrition related studies. Discussions include development of research aims and hypothesis, internal review board, collecting of primary and secondary data, measurement approaches, study designs, and key considerations in developing a thesis for publication.

Student Learning Outcomes

Upon completion of this course students should be able to:

1. Develop a research question(s), aim, and hypothesis with clearly defined independent and dependent variables
2. Develop a comprehensive literature review related to research topic
3. Describe different study designs (quantitative and qualitative) that are applicable to nutrition and food systems research
4. Explain the differences between primary and secondary data collection techniques
5. Describe different statistical analytic approaches appropriate to answer research aims and hypothesis
6. Develop a methods section which includes study sample, study design, and analytic approach related to research aims and hypothesis suitable for thesis

Course Goals

- Analyze and apply research methods within a variety of nutrition and food systems studies and settings
- Generate new knowledge through research in nutrition and food systems

Course Requirements

Required readings will include

1. Willet, Walter, Nutrition Epidemiology, 3rd edition. New York, NY: Oxford Press (2013)
2. Babbie, Earl, The Practice of Social Research, 12th edition. Belmont, CA: Wadsworth Publishing Co (2009)

Suggested Materials:

Converse and Presser, Survey Questions: Handcrafting the Standardized Questionnaire. Sage Publications, 1986.

DeVellis, Robert, Scale Development: Theory and Applications. Sage Publications, Applied Social Research Methods Series, 2011.

Student Evaluation

IRB certification = 25 points
Aims and Hypothesis = 50 points
Literature Review with references = 50 points
Data Collection Method = 25 points
Full methods section = 50 points
Final paper = 50 points
Total points = 300
A= 270-300 B=240-269 C= 210-239

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. Make-up opportunities are available for excused absences.

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).

Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused or unexcused) per university policy.

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. Make-up opportunities are available for excused absences.

Academic Integrity

Per university policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the university may be imposed.

Plagiarism and cheating are serious breaches of academic conduct. 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.uky.edu/Ombud>. 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. Making simple changes while leaving the organization, content and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas which are so generally and freely circulated as to be a part of the public domain (Section 6.3.1).

Please note: Any assignment you turn in may be submitted to an electronic database to check for plagiarism.

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) for coordination of campus disability services available to students with disabilities.

Classroom Behavior Policies

All students are expected to attend class to gain the full experience. Cell phone use is not allowed in the course. If a cellphone is being used the instructor has the right to ask the student to turn it off. Students are expected to e-mail the professor in a professional and respectful manner. If the student has asked for a meeting outside of office hours and either cancels or does not show up it may take several weeks to reschedule a meeting.

Course Schedule and Assignment Due Dates

Date	Lecture
Session 1	Introduction/Orientation
Session 2	Internal Review Board IRB – Citi Certificate Due
Session 3	Research Question, Aims and Hypothesis Aims Due to classmates
Session 4	Literature Review
Session 5	Concepts and Variables Literature Review first draft due with references in EndNote
Session 6	Feedback on Literature Review
Session 7	Data Collection Methods – surveys, anthropometric, secondary data, FFQ, 24-hr recall
Session 8	Study Sample Description of data collection and study sample method used to answer aims Due
Session 9	Study Design – Qualitative (focus groups, in-depth interviews)
Session 10	Study Design – Quantitative (case-control, cohort)
Session 11	Analytic Approaches to answer study questions Description of Study Design, Sample, and analysis approach Due
Session 12	Review Statistical Analysis Approaches
	Final Paper – Aims, Hypothesis, Literature Review, Methods, and start of Analysis

Session 1

Outline of Class Objectives and Expectations

Required Reading for Session 2:

1. Babbie Chapter 3: The Ethics and Politics of Social Research

Session 2

Protection of human subjects

- Institutional Review Board review
- Which IRB to use for University of Kentucky research
- Principles of informed consent
- Types of review (full, expedited, exempt)

Assignment:

IRB certification www.citi.org

Required Reading for Session 3:

1. Babbie Chapter 1: Human Inquiry and Science
2. Babbie Chapter 2: Paradigms, Theory and Social Research

Session 3

Formulating research questions

- developing causal models and conceptual frameworks
- developing an analytic model
- theories, hypotheses, specific aims
- distinguishing good survey questions from good thesis questions
- ✓ **Developing hypotheses and specific aims**

Assignment:

Develop research question, aims, and hypothesis statement

Session 4

Translating research aims and hypothesis into literature review

- Developing an outline for the literature review
- How to conduct a literature review using valid and reputable sources
- Taking aims into literature review
- ✓ **Developing the literature review linked back to research aims**

Assignment:

Write outline and first draft of literature review with references in EndNote

Required Reading for Session 5:

1. Babbie Chapter 5: Conceptualization, Operationalization and Measurement

Session 5

Concepts and variables:

- turning research concepts into measurable variables
- measurement issues
- validity, reliability, accuracy

- variable computation and creation

In class exercise: concept to variable matrix for one concept

Session 6

Feedback and Discussion on Literature Review

Required Reading for Session 7:

1. Willet pages 49-75; 213-240; 344-357

Articles from: TBD

Session 7

Data Collection approaches in Nutrition Research

- Types of data collection:
 - 24-hr recall
 - FFQ
 - Anthropometrics (BMI, Waist circumference, % body fat)
 - National Household surveys (NHANES, USDA FoodAps, CSFII)
 - Environmental measures (Household audits, food environment audits)
- Strengths and weaknesses of all measures
- How these measures can be used to answer research aims

Assignment:

Determine and write out what data collection approach will be used in your study

Required Reading for Session 8:

Babbie Chapter 7: The logic of Sampling

Articles: TBD

Session 8

Study Sampling

- reasons for sampling
- types of sample
- sampling units and units of analysis
- nested sample designs
- multistage samples
- developing a sampling frame
- logistics of sampling
- determining sample size: significance, power
- rare events
- resources for sample size calculation

Required Reading for Session 9:

1. Greenland Modern Epidemiology handout

Assignment:

Add in study sampling plan to draft

Session 9

Study Design Quantitative

- types of design:
 - 1) cross sectional;
 - 2) longitudinal: cohort, panel, repeat cross section;
 - 3) case control;
 - 4) experiments, quasi experiments
- strengths and weaknesses
- how to describe a study design in thesis

Required Reading for Session 10:

1. Babbie Chapter 10: Qualitative Field Research

Session 10

Study Design Qualitative

- Types of design:
 - 1) Focus groups
 - 2) Structured interviews
 - 3) Key informant interviews
- Strengths and weaknesses
- How to describe in thesis

Required Reading for Session 11:

Articles: TBD

Session 11

- Analytic Approaches:
 1. Descriptive statistics
 2. Pearson and Spearman correlation
 3. Linear regression
 4. Logistic regression
- Setting up data in a way to be analyzed
- Software (SAS, SPSS, Stata)
- Where to seek guidance and support for analysis
 - ✓ **How to determine what analytic approach is best for your study**

Assignment:

Add in type of study design and analytic approach to thesis

Session 12

- ✓ Review of analytic approaches
- ✓ Bringing it all together