

**Nutrition 5850 -090**  
**Research Methods**  
**Fall 2019**  
*Online*

**Instructor:** Katherine Beals, PhD., RD, FACSM, CSSD  
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**Class days/times:** *This course is fully Online*  
**Office hours:** Phone, Skype or in-person appointments can be made at the student's convenience.  
**Course Website:** CANVAS: <https://utah.instructure.com>  
\* **Problems?** Call the campus "help desk": 801-581-4000 (option 1)

**Course Pre-requisites:** Graduate standing in the College of Health (or a health-related department with permission of the instructor).

**Course Description:** This course will cover basic research design, measurement techniques, and methods of data collection and analysis used in health-related research with an emphasis on the field of nutrition. Special attention will be given to the major components of quantitative research design and implementation including, identifying/defining the research problem/question, protocol design, subject selection and sampling, data collection and analysis as well as interpretation, evaluation and application of research results.

**Course Goal:** The goal of the course is to help you become a better, more informed consumer of health-related research. More specifically, it is my hope that after you have completed this course you will be better able to assess the strengths and limitations of health-related research, interpret and evaluate health-related research findings and apply these findings to your practice in meaningful and useful ways.

**Student Learning Outcomes:** By the end of this course you will be able to...

- Explain the importance of research in your field of study/practice.
- Identify valid sources of research and demonstrate the ability to access resources (e.g., library, online) that support research.
- Compare and contrast quantitative and qualitative research designs.
- Describe the most common types of quantitative research utilized in health-related research and evaluate strengths/weaknesses of each.
- Describe the common statistical methods used in quantitative research including when and how they should be used.
- Evaluate the validity and applicability of published research articles related to one's area of study.
- Describe the steps involved in developing and implementing a research study.
- Design a research study in your field of study and describe how you would implement the project.

**COURSE FORMAT:** This completely online class will be delivered via lectures that have been audio-recorded. All assignments are to be uploaded via CANVAS.

**TEACHING AND LEARNING METHODS:** The instructor will employ a variety of teaching methods for this course including voice recorded lectures, supplemental readings, small and large group discussions, individual scientific exploration and peer-evaluations. The goal is to appeal to and engage a variety of learning styles in order to better meet the needs of a diverse group of students.

**REQUIRED READINGS**

- Plano-Clark VL and Creswell JW. *Understanding Research: A Consumer’s Guide*. Pearson Education, Inc. 2015. (note: on the syllabus this text will be identified as CP&C)
- Additional readings will be available on CANVAS.

**EVALUATION OF STUDENT PERFORMANCE**

Component	Points
Chapter Quizzes (7 @ 10 points each)	70
Discussions (6 @ 5 points each)	30
Assignments (number and point values will vary)	140
Midterm Exam (1 @ 60 points)	60
Research Study Design and Peer Evaluation	100
<b>TOTAL</b>	<b>400</b>

Grading Scale			
A	100 % to 92.5%	C	77.4 % to 72.5%
A-	92.4 % to 89.5%	C-	72.4 % to 69.5%
B+	89.4 % to 87.5%	D+	69.4 % to 67.5%
B	87.4 % to 82.5%	D	67.4 % to 62.5%
B-	82.4 % to 79.5%	D-	62.4 % to 59.5%
C+	79.4 % to 77.5%	E	< 59.4 %

**Chapter Quizzes:** There will be *seven*, 10-point chapter quizzes distributed throughout the semester to assess your understanding of the material in the chapter. The quizzes will be open-book and will be administered on CANVAS under the quiz icon.

**Assignments/Activities:** There will be a variety of assignments interspersed throughout the semester to give you chance to *apply* the information you are learning. The assignments have variable point values. All assignments along with the instructions for assignments will be posted on CANVAS under the “assignments” icon as well as under the corresponding module.

**Discussions:** The discussions are designed to give you a chance to interact with your fellow classmates as well as with the instructor. There will be a total of *six* (6) discussions throughout the semester each worth 5 points. All discussions close at midnight on the due dates listed in the calendar function on Canvas. General discussion criteria are as follows:

- Comments are accurate, logical, appropriate, well-defined and relevant to the topic.
- Communication is well-structured, organized, honest, civil, and respectful.
- Critical thinking skills (assessment, synthesis, analysis, evaluation, problem solving) are demonstrated where appropriate.
- For full credit, at least one comment must be provided to another student's post

**Midterm Exam:** There will be one mid-term exam worth 60 points. It will be an open-book/note exam. Details will be provided on CANVAS at least one week before the exam.

**Research Study Design and Peer-Evaluation:** This final project also serves as your final exam. It will provide you with a chance to synthesize and apply all of the information you have learned in the course. You will be designing a research study examining a topic and question/problem of interest to you that is applicable to your current (or future profession). More details will be posted on CANVAS.

### **Student Responsibilities:**

This class is administered solely online. Please be aware that **online classes frequently require MORE time** than a traditional "face-to-face" class offered on campus. Specifically, for success in this course, students are expected to...

- "attend" class regularly by logging in **daily** to check for announcements and emails
- set aside **at minimum of 6 hours per week** to view lectures, read assigned readings and complete any/all assignments. I recommend scheduling this time in your weekly schedule just like you would a face-to-face class.
- turn assignments in on time and using the appropriate file type (i.e., extension). See individual assignment for acceptable file types.
- maintain your computer and related equipment in order to participate in the online nature of the course.
- communicate in a professional and respectful manner to fellow students as well as the instructor
  - Discussion threads, e-mails, and chat rooms are all considered to be equivalent to classrooms, and student behavior within those environments shall conform to the University of Utah Student Code. Specifically:
    - Posting photos or comments that would be off-topic in a classroom are still off-topic in an online posting.
    - Off-color language and photos are never appropriate.
    - Using angry or abusive language is called "flaming", is not acceptable, and will be dealt with according to the Student Code.
    - Course e-mails, e-journals, and other online course communications are part of the classroom and as such, are University property and subject to GRAMA regulations and the Student Code. Privacy regarding these communications between correspondents must not be assumed and should be mutually agreed upon in advance, in writing.

### **Instructor Responsibilities:**

As the instructor, I strive to make this class informative and applicable to students. Specifically, I will make every effort to...

- respond to emails within 24 hours (note, this does not include weekends).
- provide feedback on assignments, exams, and discussions in a timely and professional manner. I will make every attempt to return assignments within one week.
- communicate in a professional and respectful manner.

### **Questions**

You are always welcome to contact me using Canvas' email or my university email (for any reason. However, when you have a question, please start on the Questions page, which is linked on our home page. On that page, I have provided information for getting help with Canvas and other technological issues and I have also provided a link to a discussion for course-related questions so that everyone in the class can benefit from hearing the answers.

### **Tech Support**

Though I hope you do not have any technical difficulties, they sometimes happen in online courses (or F2F courses that have an online component). Send me a Canvas message with any issues I can solve (dead links, for example), but for larger tech issues, contact the UIT Help Desk.

### **ADA Statement**

The Americans with Disabilities Act. The University of Utah seeks to provide equal access to its programs, services, and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, (801) 581-5020. CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Center for Disability Services.

### **Addressing Sexual Misconduct**

Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801- 581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585- 2677(COPS).

### **Wellness Statement**

Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness at [www.wellness.utah.edu](http://www.wellness.utah.edu) or 801-581-7776.

## **University Safety Statement**

The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit [safeu.utah.edu](http://safeu.utah.edu).

## **Veteran Center**

If you are a student veteran, the U of Utah has a Veterans Support Center located in Room 161 in the Olpin Union Building. Hours: M-F 8-5pm. Please visit their website for more information about what support they offer, a list of ongoing events and links to outside resources: <http://veteranscenter.utah.edu/>. Please also let me know if you need any additional support in this class for any reason.

## **Class Policies and Procedures**

- This is a fully online course conducted via Canvas. This course requires access and use of technology. The deadlines on the Canvas [Assignment](#), [Quiz](#), and [Discussion](#) pages are the final word on all deadlines.
- Assignments are due on or before the due dates/times as noted on the assignment instructions or as designated by the instructor. Late assignments ( $\leq 1$  week late) will automatically receive 1/2 credit. Assignments turned in **> 1 week late WILL NOT RECEIVE CREDIT!**
- No make-up exams will be given without previous arrangements with the instructor or Examples of unusual circumstances include a death in the family or illness that requires medical treatment (documentation will be requested). Computer and/or printer error on the day an assignment is due is ***NOT*** considered an unusual circumstance.
- The Code of Student Rights and Responsibilities is provided in detail on the University of Utah web page ([www.admin.utah.edu/ppmanual/8/8-10.html](http://www.admin.utah.edu/ppmanual/8/8-10.html)). Students have specific rights in the classroom as detailed in the code. The code also specifies proscribed conduct that involves cheating on tests, plagiarism, and/or collusion, as well as fraud, theft, etc. Students should read the Code carefully to become aware of these issues. Students may receive sanctions for violating one or more of these proscriptions. The instructor of this course will enforce the Code in the course; cheating and plagiarism will result in appropriate penalties, such as a failing grade on a specific exam or in the course and/or expulsion from the course. Students have the right to appeal such action to the Student Behavior Committee.

## Tentative Course Outline/Schedule

Date (week of...)	Topic	Readings
Aug 19	Introduction to Research	PC&C Chapter 1
Aug 26	Identifying valid sources of and resources for research- The literature Review	PC&C Chapter 4 and Assigned Readings
Sep 2	Overview of the types of research study design: quantitative, qualitative, and mixed model designs	PC&C Chapter 2
Sep 9	Asking the right questions and Solving problems- Identifying the research question	PC&C Chapters 3-5
Sep 16	Types of Research Study Design: Qualitative- Methodology	PC&C Chapters 9-10
Sep 23	Types of Research Study Design: Qualitative-Data Analysis & Results	PC&C Chapter 11
Sep 30	Types of Research Study Design: Quantitative- overview	PC&C Chapter 6
<b>Oct 7</b>	<b>Fall Break—No Class</b>	
Oct 14	<b>MIDTERM EXAM</b>	
Oct 21	Ethics in Research-	Assigned Readings
Oct 28	Quantitative research methodology- Sampling	PC&C Chapter 7 and Assigned Readings
Nov 4	Quantitative research methodology- Statistical Analyses	PC&C Chapter 8, pp. 255-269 and Assigned Readings
Nov 11	Quantitative presentation of the results	PC&C Chapter 8, pp. 270-283 and Assigned Readings
Nov 18	Quantitative discussion and application	PC&C Chapter 14 and Assigned Readings
Nov 25	Research proposal preparation	Assigned Readings
Dec 2	Research proposal submissions	
Dec 9	Research proposal peer evaluations	

*\* Note: Assigned Readings will be posted on CANVAS under the respective module.*

**\*\*This syllabus is meant to serve as an outline and guide for our course. Please note that I may modify it with reasonable notice to you. I may also modify the Course Schedule to accommodate the needs of our class. Any changes will be announced in class and posted on Canvas under Announcements.**