CURE Class
Spring 2025
Food As Precision Medicine

ALS4932 - Special Topics

Spring, 2025
Hybrid, Three Credits Hours
Class #: 19950, Section: FOOD
Asynchronous sessions – Tuesdays, First period (7:25-8:15 AM), zoom room
https://uflphi.zoom.us/j/4742141397

Instructor – Peggy R. Borum, Ph.D.

Office – 467A, Food Science and Human Nutrition Building
Cell – 352-562-2861
Email – prb@ufl.edu
Zoom office hours – Monday and Wednesday, 3:00 -4:00 PM, https://uflphi.zoom.us/j/4742141397

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Course Description

Variable subjects provide content for the study of agricultural topics not offered in other courses.

Course Prerequisites

• Recommendation from the Center for Undergraduate Research
• Instructor permission

Course Learning Objectives

The students will be able to:

- Demonstrate ability to discuss the use of food as precision medicine with emphasis on the use of food in Precision Ketogenic Therapy.
- Utilize collaboration software (Microsoft Teams) to address real world clinical questions with a team science approach.
- Collect data, analyze data, and write conclusions from the research.
- Present research data results and conclusions to colleagues in a research symposium setting.
- Discuss and prepare written reflections on the potential use of the group's research by the clinical care community.
- Write a Proposal of next steps for the research project.

Learning Materials and Supplies

Learning materials and supplies will be provided online using the Canvas account and a Microsoft Team created specifically for this course.

Instructor's Interaction Plan

- Expect an instructor response to email and Canvas message within 24 hours, during weekdays
- Please do not wait until the weekend to complete assignments, as I may not be available to answer emails or messages as quickly.
- Expect instructor feedback for submitted assignments within one week past the assignment deadline
- If you ever have questions or need clarification on instructor feedback, please message or attend office hours.
- I will post an announcement at least once a week to give updates and class feedback.
- I invite your feedback in both midterm and end-of-term GatorEvals and plan to continuously improve student experience within the course. Your opinion is highly valued.

Required Technology

• Device with peripherals, such as speakers, a microphone, and camera compatible with UF zoom and Microsoft Teams software.
• Links to all downloadable resources are provided.
• As a student, you have access to materials available through the institution's library or subscription services, including online journals or databases. Links are provided in course materials for needed online materials.

Required Technology & Digital Information Literacy Skills

Technical skills include:

• Using the learning management system
• Using email with attachments
• Creating and submitting files in commonly used word processing program formats
• Downloading and installing software
• Using spreadsheet programs
• Using presentation and graphics programs
• Using apps in digital devices
• Using web conferencing tools and software

Digital information literacy skills include:

• Using online libraries and databases to locate and gather appropriate information
• Using computer networks to locate and store files or data
• Using online search tools for specific academic purposes, including the ability to use search criteria, keywords, and filters
• Analyzing digital information for credibility, currency, and bias (e.g., disinformation, misinformation)
• Properly citing information sources
• Preparing a presentation of research findings

Communication Guidelines

• Use the Course Question Discussion Board, for general course questions that others may have too.
• Use Canvas Inbox (messaging tool) for questions that are specific to your grades or submissions.
• **UF email & phone correspondence** are for (1) setting a meeting time for office hours, (2) DRC accommodations; (3) emergency situations; or (4) highly sensitive situations.
• A respectful tone is used by all community members in all forms of communication.
• Written communication, both formal and informal, uses the official language of instruction rather than popular online abbreviations and graphic elements such as those sometimes used in social media.
• Video interactions reflect a respectful tone in verbal communications and body language.
• Spelling, punctuation, and grammar are correct.

Technical Support
UF Computing Help Desk & Ticket Number: All technical issues require a UF Helpdesk Ticket Number. The UF Helpdesk is available 24 hours a day, 7 days a week. https://helpdesk.ufl.edu/ | 352-392-4357

Weekly Course Schedule

(0) Abstract/Poster; (#) Research Journal Entry; (X) Required Report/Activity

Week 1	
Tuesday – January 14, 2025	• Incoming Perspectives on Food, Nutritional Needs, and Ketogenic Diet (Optional questionnaire completed before the beginning of class) • Introduction to course • Use of Microsoft Teams in Research • Poster – "Alteration to Heavy Whipping Cream Nutrition Facts and the Subsequent Impact on Precision Ketogenic Therapy" • Group1, Group 2, Group 3, Group 4 Research Groups • Food Product Data Collection for Foodomics Database video
Friday – January 17, 2025	• (X) Your Research Plan for collecting your part of the food product data assigned to your Research Group • (#) Journal Entry 1 – due by 11:59 PM- Reflection on your first week as a foodomics researcher
Week 2	
Monday – January 20, 2025	**Have a safe and enjoyable MLK Day!**
Tuesday – January 21, 2025	• Prior to class: Complete your Food Product Data Collection • Foodomics Database Data Entry Video • Discussion of Food Data Central
Friday – January 24, 2025	• (X) Food Product Entry – due by 11:59 PM • (#) Journal Entry 2 – due by 11:59 PM
Week 3	
Tuesday – January 28, 2025	• Introduction to Recipe Creation and discussion of recipes assigned to each student.
Friday – January 31, 2025	• (X) Food Product Audit – due by 11:59 PM • (#) Journal Entry 3 – due by 11:59 PM
Week 4	
Tuesday –February 04, 2025	• Introduction to Food Keto Ratio Using Total Carbs and Food Keto Ratio Using Net Carbs
Friday - February 07, 2025	• (X) Your summary of Data Analysis of Food Keto Ratio Using Total Carbs and Food Keto Ratio Using Net Carbs – due by 11:59 PM • Perspectives on Food, Nutritional Needs, and Ketogenic Diet after Education (Optional questionnaire completed by 11:59 PM) • (#) Journal Entry 4 – due by 11:59 PM
Week 5	

Tuesday – February 11, 2025	• Discussion of the meaning of the results of our data analysis
Friday – February 14, 2025	• **(X)** Conclusions you have made from your data analyses – due by 11:59 PM • **(#)** Journal Entry 5 – due by 11:59 PM
Week 6	
Tuesday – February 18, 2025	• **(0)** Abstract Creation Discussion - What to include, what not to include, how to summarize major findings, what are key aspects to an abstract
Friday – February 21, 2025	• **(0)** Your version of an abstract of your data analyses - Due by 11:59 PM • **(#)** Journal Entry 6 – due by 11:59 PM
Week 7	
Tuesday – February 25, 2025	• **(0)** Poster Creation How-To, where to begin, what to include, formatting ideas, how to create graphs, how to make poster visually appealing while communicating main points
Friday – February 28, 2025	• Draft of poster, final deadline is March 28, but begin working early! • **(#)** Journal Entry 7 – due by 11:59 PM
Week 8	
Tuesday – March 04, 2025	• Food as Precision Medicine, Food is Medicine, Food is Agriculture Multidisciplinary Discussion • Poster refinement
Friday –, March 07, 2025	• **(#)** Journal Entry 8 – due by 11:59 PM
Week 9	
Tuesday – March 11, 2025	• What does Precision Medicine mean? Use our data analyses to illustrate problems and present solutions.
Friday – March 14, 2025	• **(#)** Journal Entry 9 – due by 11:59 PM
Week 10	
March 17-21, 2025	**Have a great Spring Break!**
Week 11	
Tuesday – March 25, 2025	• Metabolic and Clinical Foundations for Problems • Total Carbohydrate Measurement Methods • Net Carbohydrate Measurement Methods • Importance of Fiber in Precision Ketogenic Therapy
Friday –	• **(0)** Final Research Poster – due by 11:59 PM • **(#)** Journal Entry 10 – due by 11:59 PM

March 28, 2025	
Week 12	
Tuesday – April 01, 2025	• Communication with patients, caregivers, families, and healthcare professionals, and producers of food discussion, incorporation of the PKT website and research symposium • **Guest Speaker** – Parrish Winesett MD, Epileptologist in the Division of Pediatric Neurology and Medical Director of the Pediatric Precision Ketogenic Therapy Clinic
Friday – April 04, 2025	• **(#)** Methods of communication Journal Entry 11 – due by 11:59 PM
Week 13	
Tuesday – **April 08, 2025**	• **Guest Speaker** – Maria Bruzzone MD, Epileptologist in the Division of Neurology and Medical Director of the Adult Precision Ketogenic Therapy Clinic • **Spring Symposium taking place today at the O'Connell Center, *attendance is encouraged***
Friday – **April 11, 2025**	• **(#)** Journal Entry 12 – due by 11:59 PM
Week 14	
Tuesday – **April 15, 2025**	• Improvement discussion – Discussion of ways that government agencies, non-profit organizations, and producer of food available to patients can assist in improving PTK Foodomics database
Friday – **April 18, 2025**	• **(X)** Government Agency Proposal assignment – due by 11:59 PM • **(#)** Improvement Journal 13 – due by 11:59 PM
Week 15	
Tuesday - April 22, 2025	• Major takeaways discussion – come to class prepared to discuss major findings and experiences gained throughout the semester. This will be a seminar style class period and a time to hear from classmates. • Post Research Perspectives on Food as Precision Medicine including Precision Ketogenic Therapy (Optional questionnaire completed by 11:59 PM)
	No Final Exam – Have a great break!

Grading Policy

The research activities will be conducted using Microsoft Teams and the items to be graded will be posted to The Canvas account.

Course Deliverables and Grading
Week 1 - Friday – January 17, 2025
• Your Research Plan for collecting your part of the food product data assigned to your Research Group **(5%)**   • Journal Entry 1 – Reflection on your first week as a foodomics researcher **(2%)**
Week 2 - Friday – January 24, 2025
• Food Product Entry **(10%)**   • Journal Entry 2 **(2%)**
Week 3 - Friday –January 31, 2025
• Food Product Audit **(7%)**   • Journal Entry 3 **(2%)**
Week 4 - Friday - February 07, 2025
• Data Analysis of Food Keto Ratio Using Total Carbs and Food Keto Ratio Using Net Carbs **(6%)**   • Journal Entry 4 **(2%)**
Week 5 - Friday – February 14, 2025
• Conclusions you have made from your data analyses **(6%)**   • Journal Entry 5 **(2%)**
Week 6 - Friday – February 21, 2025
• Your version of an abstract of your data analyses **(10%)**   • Journal Entry 6 **(2%)**
Week 7 - Friday – February 28, 2025
• Draft of poster **(5%)**   • Journal Entry 7 **(2%)**
Week 8 - Friday –, March 07, 2025
• Journal Entry 8 **(4%)**
Week 9 - Friday – March 14, 2025
• Journal Entry 9 **(4%)**
Week 11 - Friday – March 28, 2025
• Final Research Poster **(5%)**

• Journal Entry 10 **(4%)**	
Week 12 - Friday – April 04, 2025	
• Methods of communication Journal Entry 11 **(4%)**	
Week 13 - Friday – April 11, 2025	
• Reflections from Symposium Journal Entry 12 **(4%)**	
Week 14 - Friday – April 18, 2025	
• Government Agency Proposal assignment **(8%)** • Improvement Journal Entry 13 **(4%)**	

Grading Summary

Assignment	Percentage
Journal Entries 1-7 (2 points each)	14
Journal Entries 8-13 (4 points each)	24
Your Research Plan for collecting your part of the food product data assigned to your Research Group	5
Food Product Entry	10
Food Product Audit	7
Data Analysis of Food Keto Ratio Using Total Carbs and Food Keto Ratio Using Net Carbs	6
Conclusions you have made from your data analyses	6
Your version of an abstract of your data analyses	10
Draft of poster	5
Final Research Poster	5
Government Agency Proposal assignment	8
Total Percentage	100

Grading Scale

Final Grade	Points/Percentage
A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62

There will be no curve in this course. Final grades will be calculated from the total accumulated points.

Attendance & Make-up Work

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies. UF Attendance Policies

Academic Honesty

University of Florida students are bound by the Honor Pledge. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Student Honor Code." You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see Student Conduct Code Process.

Student Privacy Disclaimer:

Our class sessions may be audio-visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.]

In-Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or guest lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student

Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at: https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via the GatorEvals site. Summaries of course evaluation results are available to students at GatorEvals Public Data.

Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Services for Students with Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. It is important for students to share their accommodation letter with their instructor and discuss their access needs as early as possible in the semester.

Campus Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

Health and Wellness

- *U Matter, We Care*: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or https://umatter.ufl.edu/ to refer or report a concern and a team member will reach out to the student in distress.

- *Counseling and Wellness Center*: Visit https://counseling.ufl.edu/ or call 352-392-1575 for information on crisis services as well as non-crisis services.
- Student *Health Care Center*: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit https://shcc.ufl.edu/
- *University Police Department*: Visit https://police.ufl.edu/ or call 352-392-1111 (or 9-1-1 for emergencies).
- *UF Health Shands Emergency Room / Trauma Center:* For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; visit https://ufhealth.org/locations/uf-health-shands-emergency-room-trauma-center
- *GatorWell Health Promotion Services*: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit https://gatorwell.ufsa.ufl.edu/ or call 352-273-4450.

Academic Resources

- *E-learning technical support*: Contact the UF Computing Help Desk at 352-392-4357 https://it.ufl.edu/helpdesk/ or via e-mail at helpdesk@ufl.edu.
- *Career Connections Center*: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.
- *Library Support*: Various ways to receive assistance with respect to using the libraries or finding resources.
- *Teaching Center*: 1317 Turlington Hall, 352-392-2010. General study skills and tutoring.
- *Writing Studio:* 2215 Turlington Hall*,* 352-846-1138. Help brainstorming, formatting, and writing papers.
- *Student Concern*: Report Student Concerns or Conduct

Student Complaints:
- Residential Course: https://www.sfa.ufl.edu/written-student-complaints/
- Online Course: https://pfs.tnt.aa.ufl.edu/state-authorization-status/#student-complaint

Additional Information
The mission of this course is to help people who have symptoms, but no answer. Instructors and students in this course are a research team of colleagues. Some of us have more experience than others. But all of us are professionals who are here for the purpose of answering real world issues that affect real people and to improve the research of the future by refining our research skills.

Privacy and Accessibility Policies
For information about the privacy policies of the tools used in this course, see the links below:

- Adobe
    - Adobe Privacy Policy
    - Adobe Accessibility
- Honorlock
    - Honorlock Privacy Policy

- o [Honorlock Accessibility](#)
- Instructure (Canvas)
  - o [Instructure Privacy Policy](#)
  - o [Instructure Accessibility](#)
- Microsoft
  - o [Microsoft Privacy Policy](#)
  - o [Microsoft Accessibility](#)
- Respondus
  - o [Respondus Privacy Policy](#)
  - o [Respondus Accessibility](#)
- Sonic Foundry (Mediasite Streaming Video Player)
  - o [Sonic Foundry Privacy Policy](#)
  - o [Mediasite Accessibility](#) (PDF)
- Vimeo
  - o [Vimeo Privacy Policy](#)
  - o [Vimeo Accessibility](#)
- VoiceThread
  - o [VoiceThread Privacy Policy](#)
  - o [VoiceThread Accessibility](#)
- YouTube (Google)
  - o [YouTube (Google) Privacy Policy](#)
  - o [YouTube (Google) Accessibility](#)
- Zoom
  - o [Zoom Privacy Policy](#)
  - o [Zoom Accessibility](#)