

Tentative Course Outline and Schedule
HUN 6245 Advanced Human Nutrition
A team-taught course
Fall 2019 – Section 353E (3 credits)
Mondays and Wednesdays, 3:00 to 4:55 PM (periods 8 & 9), MCCA 1142

COURSE LEADER and INSTRUCTOR:

Bobbi Langkamp-Henken, Ph.D., R.D.
Food Science and Human Nutrition Department

FSHN Building, Room 309
Cell: 352-642-3669
Email: henken@ufl.edu

Office Hours: Tuesdays 1:30 to 3:00 p.m. (by appointment call (352-294-3734) or email (rvinyard@ufl.edu) Rachael in the Advising Office to schedule). Other times: if my office door is open, please feel free to come in and see me.

COURSE INSTRUCTORS

Dr. Zhiyong Cheng (z.cheng@ufl.edu)
Dr. Wendy Dahl (wdahl@ufl.edu)
Dr. Harry Sitren (sitren@ufl.edu)
Dr. Peggy Borum (prb@ufl.edu)
Dr. Anne Mathews (anne.mathews@ufl.edu)

OFFICE HOURS

Thursdays 10 to 11 or other times by appointment
Tuesdays 3 to 5 p.m.

Tuesdays and Fridays 2:30 to 3:30 or other times by appointment
Email Dr. Mathews to schedule an appointment

COURSE TA: Becca Solch (rsolch@ufl.edu)

Mondays 1 to 2:30 p.m.

COURSE DESCRIPTION:

Gastrointestinal physiology and digestion, absorption, and metabolism of macronutrients.
Prerequisites: BCH4024 or BCH3025 and a principles of nutrition course.

COURSE OBJECTIVES: Through active participation the student will

1. Describe the structures of the digestive tract and the digestive and absorptive processes.
2. Discuss the role of the endocrine system on the regulation of metabolism.
3. Apply knowledge of macronutrient digestion, absorption and metabolism to determine optimal dietary intakes or patterns for the maintenance of health and reduction of disease risk.
4. Use relevant databases for literature review and appropriate evidence to defend positions related to current nutrition controversies.

TEXT AND MATERIALS:

Advanced Nutrition and Human Metabolism by Gropper, Smith, & Carr (Required). Additional readings/resources are provided on e-Learning in Canvas: <http://elearning.ufl.edu>.

You have 4 options to consider for purchasing access to the text.

1. Purchase an ebook (~\$30.00). The ebook is a flat PDF – no extra bells and whistles but you can keep it forever.
2. Purchase a new (~\$150) or used text.
3. Purchase MindTap access code (\$113 ISBN: 9781337113038). MindTap will be linked to our Canvas site. MindTap has activities, videos, flash cards, the ebook, and much more.
4. Cengage Unlimited access code (\$119.99 for 1 term, ISBN 9780357700037; \$179.99 for 1 year, ISBN 9780357700044; \$239.99 for 2 years, ISBN 9780357700051). This gives you access to all Cengage textbooks.

COURSE ACTIVITIES:

- Quizzes – In an effort to help you prepare for graduate level material presented in this course, you will be assigned readings prior to each major topic and quizzed on the material. A total of five timed quizzes will be administered through Canvas but scores from only four quizzes will count toward your grade.
- Class participation – Attendance is expected/required for all classes. You will score your attendance/participation using the included rubric. The instructor will then use that information to assign a final score.
- Assignments and debates on topics of discussion and current controversies (see section below on Assignments)

GRADING: Percentage of final grade (see rubrics below for participation and assignments):

• Quizzes	10%
• Participation (see attendance/participation rubric)	10%
• Assignments	50%
• Exam	30%
	100%

A = 94% to 100%; A- = 90% to < 94%; B+ = 87% to < 90%; B = 84% to < 87%; B- = 80% to < 84%; C+ = 77% to < 80%; C = 74% to < 77%; C- = 70% to < 74%; D+ = 67% to < 70%; D- = 61% to < 64%; F = < 61%

TENTATIVE SCHEDULE:

This is a 3-credit class being taught in two 50-minute blocks twice a week as if it were a 4-credit course. Time off will be given during the semester to reduce classroom time to that of a 3-credit course.

<u>Date</u>		<u>Topic</u>
August	21	Henken: Introduction to course and review of the syllabus
	26	Henken: Gastrointestinal physiology
	28	Henken: Gastrointestinal physiology
September	2	Labor Day – no class
	3	<i>Quiz 1 on Chapter 3 – opens 3 p.m. today and closes at 3 p.m. tomorrow</i>
	4	Cheng: CHO metabolism and endocrine regulation
	9	Cheng: CHO metabolism and endocrine regulation
	11	Cheng: CHO metabolism and endocrine regulation
	16	Henken: Gastrointestinal physiology – Mucosal immunology and the microbiota
	17	<i>Quiz 2 on Chapter 4 – opens 3 p.m. today and closes at 3 p.m. tomorrow</i>
	18	Dahl: Fiber Function and Health
	23	Dahl: Fiber Function and Health
	24	<i>Quiz 3 on assigned reading on proteins and amino acids (see assignments below) – opens 3 p.m. today and closes at 3 p.m. tomorrow</i>
	25	Sitren: Proteins and amino acids in clinical nutrition
	30	Dahl: Fiber Function and Health
October	2	Cheng: CHO metabolism and endocrine regulation
	7	Sitren: Proteins and amino acids in clinical nutrition
	9	No Class
	14	No Class
	16	No Class
	21	No Class
	22	<i>Quiz 4 on Chapter 5 – opens 3 p.m. today and closes at 3 p.m. tomorrow</i>
	23	Borum: Nutritional aspects of lipid metabolism: <i>Are Dietary Fats Bad for You?</i>
	28	Borum: Nutritional aspects of lipid metabolism: <i>Is It Fat Metabolism or Carb Metabolism?</i>
	30	Borum: Nutritional aspects of lipid metabolism: <i>Are Lipids Good or Bad for Cancer?</i>
November	4	Borum: Nutritional aspects of lipid metabolism: <i>Do Gut Microbiota Want Dietary Lipids or Dietary Carbs?</i>
	6	Debate on nutrition controversy Group 1 (Henken)
	11	Veterans Day – no class
	12	<i>Quiz 5 on assigned readings - opens 3 p.m. today and closes at 3 p.m. tomorrow</i>
	13	Mathews: Dietary Guidelines and patterns related to chronic disease risk
	18	Mathews: Dietary Guidelines and patterns related to chronic disease risk
	20	Mathews: Dietary Guidelines and patterns related to chronic disease risk
	25	Debate on nutrition controversy Group 2 (Henken)
	27	Thanksgiving Holiday – no class
December	2	Debate on nutrition controversy Group 3 (Henken) <i>Attendance/Participation self-evaluation due</i> <i>Debate team and peer team-work score sheets due</i>
FINAL EXAM	9	10:00 a.m. to 12:00 p.m. (Henken)

ASSIGNMENTS:

CHO & Endocrine Regulation - Dr. Cheng

The assignment for the CHO & Endocrine Regulation session will be a group project/presentation. At the first class of CHO session, the assignment topics will be provided by the instructor and randomly assigned to groups (3-4 students/group). There will be a short window of time for groups to trade topics among themselves and for group members to switch groups to better align with the topic for their group. Presentations must be 15-18 minutes in length and will be followed by 5-7 minutes of questions. The presentations must be the product of group work with all members contributing equally.

Grading Rubrics for the CHO assignment (project presentation).

Criteria	Ratings		Pts
	5.0 pts Full Marks	0.0 pts No Marks	
All aspects of the assignment were addressed.	5.0 pts Full Marks	0.0 pts No Marks	
The presentation was well prepared and logically organized.	5.0 pts Full Marks	0.0 pts No Marks	
Presentation and content had obvious creativity, depth, and details.	5.0 pts Full Marks	0.0 pts No Marks	
Sources of support were current and strong, and the topic was well researched.	5.0 pts Full Marks	0.0 pts No Marks	
Major points and conclusions were clear and understood by the audience.	5.0 pts Full Marks	0.0 pts No Marks	
In answering questions, the group demonstrated understanding of their presented material and ability to integrate or extend beyond their presentation.	5.0 pts Full Marks	0.0 pts No Marks	
Speakers were organized and prepared to present.	5.0 pts Full Marks	0.0 pts No Marks	
Speakers had strong presence and were easily heard.	5.0 pts Full Marks	0.0 pts No Marks	
Speakers effectively presented their points and content.	5.0 pts Full Marks	0.0 pts No Marks	
Speakers had enthusiasm in presenting the presentation.	5.0 pts Full Marks	0.0 pts No Marks	
			Total Points: 50.0

Fiber Chemistry and Function - Dr. Dahl: TBA

Proteins and amino acids in clinical nutrition - Dr. Sitren

- It is not necessary to read the entire chapter. Please read the following pages from the print book or sections online book:

Topic	Pages in print book	Section in online book
Essentiality	178	6-1d
Sources of amino acids	178 - 179	6-2
Digestion	179 - 181	6-3
Arginine	197 - 198	6-5h
Protein synthesis	201 - 202	6-6
Catabolism of tissue proteins	229 - 230	6-10
Protein quality and protein and amino acid needs	233 - 240	6-12

- Read page 279 print book / section 8-2c Thermic Effect of Food online
- Read *The Wall Street Journal* article "How Much Protein Should You Eat Each Day?" See Canvas module on Protein and Amino Acids for a copy of the article.

Assignment for Nutritional Aspects of Lipid Metabolism (Dr. Borum): TBA

Assignment for Dietary Guidelines and patterns related to chronic disease risk - Dr. Mathews: TBA

Debates:

Topics: Topics will be voted on by the class and students will draw for teams and topics.

1. The Dietary Reference Intake for protein for older adults should be increased.
2. Soy protein should not be regularly included as a major source of protein as part of a healthy diet for individuals of all ages because the health risks are too great.
3. School lunch programs should use plant-based meatless (faux-beef) products in place of all beef.
4. A low carbohydrate (ketogenic) diet is superior to a low-fat diet for weight loss.
5. The dairy group should be eliminated in MyPlate.

Expectations:

1. Review relevant literature on both sides of the debate.
2. Anticipate arguments from the opposing side to formulate rebuttals.
3. Meet with your team prior to the debate to prepare strategy and practice.
4. Organize points into a logical format to present to the class – PowerPoint slides may be used.

Format:

Team member	Description	Time (minutes)
Affirmative team speaker 1	Opening statement: present the topic and arguments in support	5 to 10
Opposing team speaker 1	Opening statement: present the topic and arguments in opposition	5 to 10
Break	Teams discuss strategy	5
Affirmative team speaker 2	Further arguments in support, identifies areas of conflict and answers questions that may have been raised by the opposition speaker	5 to 10
Opposing team speaker 2	Further arguments in opposition, identifies areas of conflict and answers questions that may have been raised by the affirmative speaker	5 to 10
Break	Prepare rebuttal	5
Opposing team speaker 3	Defend opposing arguments and defeat the supporting arguments without adding new information	5
Affirmative team speaker 3	Defend supporting arguments and defeat the opposing arguments without adding new information	5
Opposing team	Second rebuttal and closing arguments	5
Affirmative team	Second rebuttal and closing arguments	5
Audience	Discussion, questions, thoughts, opinions, and vote	15

Peer teamwork evaluations for debate: Your grade will be determined by your peers (i.e., the average score from your peers) and scored as follows:

Peer being evaluated: _____ by: _____ (initials)	Possible Points	Assigned Points
Communication – communicates effectively and in a timely manner (0=not effective or timely, 10=very effective or timely)	1.0	
Attendance – has attended all planning and preparation meetings and has been on time (0=very poor attendance and always late, 10=great attendance and on time)	1.0	
Responsibility – has assumed equal responsibility for their share of the project (0=others have had to assume these responsibilities, 10=completed their share of the responsibilities)	2.0	
Attitude – has maintained a positive attitude during the project (0=very poor attitude, 10=very positive attitude)	1.0	
Total	5.0	
Comments		

Grading rubric:

Criteria	4 points	3 points	2 points	1 points	0 point	Total Points
Information	All information was clear, accurate and thorough	Most information was clear, accurate and thorough	Most information was clear and accurate, but was not usually thorough	Some information was accurate, but there were some minor inaccuracies	Information had some major inaccuracies OR was usually not clear	
Rebuttal	All counterarguments were accurate, relevant and strong	Most counterarguments were accurate, relevant and strong	Most counterarguments were accurate, relevant, but several were weak	Some counter arguments were weak and irrelevant	Counterarguments were not accurate and/or relevant	
Use of facts	Every major point was well supported with the highest quality evidence	Every major point was adequately supported with the highest quality of evidence	Every major point was supported with the highest quality of evidence but the relevance of some was questionable	Some points were supported well, others were not	None of the points were supported	
Organization	All arguments were clearly tied to the topic and organized in a tight, logical fashion	Most arguments were clearly tied to the topic and organized in a tight, logical fashion	Most arguments were clearly tied to the topic but not organized in a tight, logical fashion	Some arguments were tied to the topic but not logical in presentation	Arguments were not tied to the topic	
Understanding of topic	The team clearly understood the topic in depth and presented their information forcefully and convincingly	The team clearly understood the topic in depth and presented their information well	The team seemed to understand the main points of the topic and presented those with ease	The team seemed to understand the main points of the topic, but didn't present with ease	The team did not show an adequate understanding of the topic	
Peer score for debate					Average score from peers (20 pts max)	
Instructor score for debate					Average score from instructors (20 pts max)	
Peer teamwork evaluations (see rubric above)					Average score from peers (5 pts max)	
Points for winning the debate					2 points	
List of references submitted 1 week before the debate					3 points	
					Total (50 points)	
Comments						

Adapted from <http://course1.winona.edu/shatfield/aire/classdebate.pdf>

Attendance/Participation Rubric

Please use this rubric to score your attendance/participation in this course and provide an explanation for the score you've determined. The instructor will then use this information assign your final attendance and participation grade. *Adopted from Carnegie Mellon – Participation Rubric 11/19/14*
<https://www.cmu.edu/teaching/assessment/examples/courselevel-bycollege/cfa/tools/participationrubric-cfa.pdf>

Criteria	Unsatisfactory-Beginning	Developing	Accomplished	Exemplary	Total
Attendance	0-16 points	17-19 points	20-22 points	23-25 points	/25
	3 or more unexcused absences	2 unexcused absences	1 unexcused absence	Attended all class sessions or received approval for all necessary absences	
Frequency	0-16 points	17-19 points	20-22 points	23-25 points	/25
	Student does not initiate contribution & needs instructor to solicit input.	Student initiates contribution at least in half of the class sessions	Student initiates contribution once in each recitation.	Student initiates contributions more than once in each class session.	
Quality	0-16 points	17-19 points	20-22 points	23-25 points	/25
	Comments are uninformative, lacking in appropriate terminology. Heavy reliance on opinion & personal taste, e.g., "I love it", "I hate it", "It's bad" etc.	Comments are sometimes constructive, with occasional signs of insight. Student does not use appropriate terminology; comments not always relevant to the discussion.	Comments mostly insightful & constructive; mostly uses appropriate terminology. Occasionally comments are too general or not relevant to the discussion.	Comments always insightful & constructive; uses appropriate terminology. Comments balanced between general impressions, opinions & specific, thoughtful criticisms or contributions.	
Listening	0-16 points	17-19 points	20-22 points	23-25 points	/25
	Does not listen to others; regularly talks while others speak or does not pay attention while others speak; detracts from discussion; sleeps, etc.	Student is often inattentive and needs reminder of focus of class. Occasionally makes disruptive comments while others are speaking.	Student is mostly attentive when others present ideas, materials, as indicated by comments that reflect & build on others' remarks.	Student listens attentively when others present materials, perspectives, as indicated by comments that build on others' remarks, i.e., student hears what others say & contributes to the dialogue.	
				TOTAL	/100

Explanation:

Grades and Grade Points: For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Online Course Evaluation Process: 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 <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Absences and Make-Up Work: Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Academic Honesty: 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.*” 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 this course unless I give explicit permission for you to collaborate on course tasks (e.g. in-class assignments). 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: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

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.

Campus Helping 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.

University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, www.counseling.ufl.edu/cwc/
Counseling Services, Groups and Workshops, Outreach and Consultation, Self-Help Library, Wellness Coaching.
U Matter We Care, www.umatter.ufl.edu/

Career Resource Center, First Floor JWRU, 392-1601, www.crc.ufl.edu/

Services for Students with Disabilities: The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

The Dean of Students Office, 0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/

University of Florida Complaints Policy: The University of Florida believes strongly in the ability of students to express concerns regarding their experiences at the University. The University encourages its students who wish to file a written complaint to submit that complaint directly to the department that manages that policy. A student who is unsure as to the official responsible for handling his or her particular complaint may contact the Ombuds office or the Dean of Students Office. For complaints that are not satisfactorily resolved at the department level or which seem to be broader than one department, students are encouraged to submit those complaints to one of the following locations: Ombuds: <http://www.ombuds.ufl.edu/> 31 Tigert Hall, 352-392-1308. The purpose of the Ombuds office is to assist students in resolving problems and conflicts that arise in the course of interacting with the University of Florida. By considering problems in an unbiased way, the Ombuds works to achieve a fair resolution and works to protect the rights of all parties involved. Dean of Students Office: <http://www.dso.ufl.edu/> 202 Peabody Hall, 352-392-1261. The Dean of Students Office works with students, faculty, and families to address a broad range of complaints either through directly assisting the student involved to resolve the issue, working with the student to contact the appropriate personnel, or referring the student to resources or offices that can directly address the issue. Follow up is provided to the student until the situation is resolved. Additionally, the University of Florida regulations provide a procedure for filing a formal grievance in Regulation 4.012: <http://regulations.ufl.edu/regulations/uf-4-student-affairs/>.

U Matter, We Care: Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.