

KINE 362: Sustainable Food Systems and Diets

Course Syllabus, Fall 2022

Tuesday and Thursday, 3:30-4:50pm

Boswell Hall, rm. 220



Instructor: Zach Conrad, PhD, MPH

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Office hours: by appointment

Course description: This course presents the most important concepts that link human nutrition with environmental sustainability at the local, regional, national, and global scales. This course emphasizes the structural drivers and outcomes of human decision-making as they relate to food choice, nutrition, and ecological stewardship, with a lens toward developing sustainable nutrition recommendations for the public. Critical appraisal of contemporary evidence underlies all aspects of this course.

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

- Identify and define the major structural components of food systems
- Describe how food flows through food systems, from farm to fork
- Describe how food choices cause, and are affected by, food system sustainability
- Describe the factors that influence nutrition and health disparities at the individual and population levels
- Critically appraise the contemporary evidence that links food choices with sustainability

Required text: Neff, R. Introduction to the US Food System: Public Health, Environment, and Equity. 1st Edition. Available at the William & Mary bookstore.

Additional readings will be posted on Blackboard.

COLL 200 designations

This course is anchored in the Cultures, Societies, and the Individual (CSI) domain, but reaches out to the Natural World and Quantitative Reasoning (NQR) domain for at least 10% of its content.

The primary emphasis of this course is an examination of the structural drivers and outcomes of societal decision-making around food choice, specifically as it relates to human health and environmental sustainability; this places it squarely within the CSI domain. Additionally, this course will examine the biological phenomena that are used to characterize environmental sustainability, which reaches out to the NQR domain.

Cultures, Societies, and the Individual (CSI): Courses in this domain examine the realm of human cultures, societies, and individuals through their development, organization, and interaction. Some courses employ mathematical modeling, statistical analysis, and scientific experimentation; some, the analysis of artifacts and texts; and others, observation, inference, and extrapolation. Students learn to describe, theorize, and explain human cultures, societies, and individuals in their variety over time and space.

Natural World and Quantitative Reasoning (NQR): Courses in this domain examine the natural world and physical universe and the means by which humans observe, measure, model, and interpret it. Courses explore the process of scientific discovery, including the methods required to gather and assess empirical data, investigate the predictions of existing theories, and develop experimentally testable hypotheses. Courses may also focus on mathematical or computational methods as applied to these investigations. Students develop their understanding not only of the foundations, implications, and uses of scientific knowledge but also how scientific approaches can be used to create tangible products.

Add/drop deadline: September 12th, 2022

Withdraw deadline: October 31st, 2022

Grading:

Assignment/assessment*	Points	Due/completion date
In-class assignments (×4)	8	9/22, 10/18, 11/10, 12/6
Section tests (×3)	70	9/29, 10/25, 11/17
Final exam (not cumulative)	22	12/14, 2-5pm
Total	100	

*All assignments will be submitted remotely and all tests will be submitted in class. Both will be submitted via Blackboard.

Grading system: This course grades on a 100 point scale, and each 10 point increment represents a threshold for a distinct letter grade. Within each letter grade, minus (-) is awarded for up to 2.5 points above the lower threshold, and plus (+) is awarded for up to 2.5 points below the upper threshold. All grades are rounded to the first decimal place. For example, B- is 80 to 82.4, B is 82.5 to 87.4, and B+ is 87.5-89.9 points. 92.5-100 is an A.

Description of assignments and tests:

Assignments: Near the end of each section you are asked to submit a single question about anything related to nutrition that you want an answer to. Questions can include (but are not at all limited to) clarifications of material that we’ve covered, questions about material that we won’t cover, media coverage of certain topics, my opinions about certain topics, etc. I will answer as many questions as possible during the subsequent class in an **AMA session**. Importantly, any questions that I answer can be included on the next test. You will submit your questions via Blackboard by 11:59pm on the due date. Five submissions are worth 2 points each, totaling 8 points overall.

2/2 points: genuine, thoughtful question related specifically to a nutrition concept we have not covered yet. Some exceptions:

- It’s fine if it gets covered after it is submitted
- If you are asking a clarification question about a topic we’ve already covered, please specify that

1/2 points: not a genuine or thought-provoking question, already covered in the course, or not in Word document.

0/2 points: no question submitted or didn't follow multiple directions.

Section tests are designed to assess depth of knowledge of each section. All tests will be completed during normal class times, on Blackboard, in class. Students will have 1 hour to complete each test. These typically include 20-30 multiple-choice and true/false questions, and each question is worth the same number of points. Four tests are worth 20-25 points each, totaling 70 points overall.

The **Final exam** is designed to assess depth of knowledge of the final section in the course (it is not cumulative). It will be completed on Blackboard, in class. The exam is scheduled for a three-hour period at the end of the course and is worth 22 points.

Course schedule:

Date	Topic	Readings (ranges are inclusive)	Due/completion dates
Introduction to course			
9/1	Introduction to course		
Structural Components			
9/6	Sustainable food systems	Chapter 1	
9/8	Structural change and drivers	Chapter 1	
9/13	Crop and livestock production systems	Chapters 11 and 12	
9/15	Processing and packaging	Chapter 13	
9/20	Supply chain	Chapter 14	
9/22	Alternative food systems	Posted readings	Assignment #1 (2%)
9/27	AMA #1		
9/29	Test		Test: Section 1 (25%)
Health Outcomes			
10/4	Diet quality and nutrient adequacy	Chapter 2	
10/6	Food security	Chapters 5 and 6	
10/11	Food safety	Posted readings	
10/18	Nutrition research	Posted readings	Assignment #2 (2%)
10/20	AMA #2		
10/25	Test		Test: Section 2 (20%)
Environmental Outcomes			
10/27	Land and water	Chapter 3	
11/1	Air and energy	Chapter 3 and posted readings	
11/3	Loss and waste	Posted readings	
11/10	Sustainability research	Posted readings	Assignment #3 (2%)

11/15	AMA #3		
11/17	Test		Test: Section 3 (25%)
		Drivers	
11/22	Policy process	Chapter 8	
11/29	Agricultural policy	Chapter 8	
12/1	Nutrition policy	Chapter 10	
12/6	Food system economics	Chapter 7	Assignment #4 (2%)
12/8	AMA #4		
12/14	Final exam		Final exam: Section 4 (22%)

Laptop and phone policy: If you bring your laptop/tablet to class I expect that you are using it to take notes. The problem with using your laptop for non-class activities is that it is distracting to other students who can see your screen (and to yourself) – and it can also be distracting to me! The same goes for your phone – please don’t use it at all during class. If there is an emergency during class and you need to use your phone, please step outside of the classroom so others aren’t distracted.

Attendance: You are expected to attend every class. Crucial concepts will be presented and discussed in class that will not be included in the lecture slides and readings.

Accommodations: It is the policy of William & Mary to accommodate students with disabilities and qualifying diagnosed conditions in accordance with federal and state laws. Any student who feels s/he may need an accommodation based on the impact of a learning, psychiatric, physical, or chronic health diagnosis should contact the [Student Accessibility Services](#) staff at 757-221-2512 or at sas@wm.edu. SAS staff will work with you to determine if accommodations are warranted and, if so, to help you obtain an official letter of accommodation.

Late submissions: If you will not be able to turn in an assignment or complete a test for any reason, you must notify me by email at least two days before your planned absence. Accommodations will be granted on a case-by-case basis. For assignments, 0.5 points will be deducted if submitted within 24 hours after the due date, and an additional 0.5 points will be deducted for each additional late day. For tests, 5 percentage points will be deducted if submitted after 1:30pm on the due date, and an additional 10 percentage points will be deducted for each additional late day starting at 12:01am the morning after the due date.

Communications: All emails should include “KINE 362” somewhere in the subject line, that way I can prioritize your email. If you are requesting an accommodation, you must do so by email.

Diversity Mission Statement: To make the Department of Health Sciences a place where all are welcome and thrive, irrespective of their age, cultural identity, ethnicity, gender, faith, neurological make-up, geographic background, military (veterans) and economic status. We also seek to expand the definition of diversity to include differences in physical ability and

physiologic capacity and to provide leadership across campus in understanding those differences. This includes students, faculty and staff.

The College Honor System: The College of William & Mary has had an honor code since at least 1779. Academic integrity is at the heart of the College, and we all are responsible for upholding the ideals of honor and integrity. The student-led honor system is responsible for resolving any suspected violations of the Honor Code, and I will report all suspected instances of academic dishonesty to the honor system. The Student Handbook (www.wm.edu/studenthandbook) includes your responsibilities as a student and the full Code. Your full participation and observance of the Honor Code is expected. To read the Honor Code, see www.wm.edu/honor.

***This syllabus is subject to change.**