

Day 1: Introduction, Syllabus Review, Food Inc. Viewing

- **Learning Objectives**
 - What is a “Food System”
 - Summarize the elements of our Food System
 - Connect Food Systems with Culinary field
 - Review Syllabus, reading materials, assignments, and grading
- **Lecture**

Most students are unfamiliar with the concept of food systems, so week one slides are intended as a summary of the entire course, creating familiarity with each element of our Food System that we will be discussing.
- **Demonstration**

Week 1 “Introduction” Slide presentation. Part One of “Food Inc.” a documentary
- **Competency-Based Applied Learning Activity**

Discussion based learning with slides providing material.
- **Reading / Homework Assignment**

NY Times Article “In the Shopping Cart of a Food Stamp Household”
Omnivore’s Dilemma – Introduction, Ch 1 and Ch 2
- **Assessment**

Reading Assessment to ensure students are reading the materials and thinking about the materials and connections. 4 – 6 short answer questions are presented.

Day 2: Food Systems Governance

- **Learning Objectives**
 - Who are the relevant governmental entities involved in our food system – global, federal, state and local
 - Review governmental system in the U.S. – how do legislative, executive and judicial branches interact
 - How do these branches impact our food system – who has control and how do they execute it?
 - How can change be accomplished – laws, regulations, executive orders, judicial decisions -examples
 - Establish complexity of the overall system and dynamics between policy and behavior
- **Lecture**

The intent of this lecture is to familiarize students with how governance of our food system works, assuming VERY LITTLE understanding of civics and governmental operations. I am heavy on examples to keep this topic relevant and understandable.
- **Demonstration**

Week 2 “Food Systems Governance” slides. Part Two of “Food Inc.” a documentary
- **Competency-Based Applied Learning Activity**

Discussion based learning with slides providing material
- **Reading / Homework Assignment**

None
- **Assessment**

None

Day 3: GMO Use, Consumption and Labeling

- **Learning Objectives**
 - What are GMOs
 - What is their current governance
 - What are the pros/cons that are fueling the debate about GMOs
 - How could they be regulated without stifling innovation?
 - Students should THINK about what GMOs offer, how they are currently used and governed and what potential outcomes are (positive and negative)
- **Lecture**

GMOs is selected as the first “deep dive” given its relevance and likely familiarity with the topic. It establishes governmental involvement, impact on consumer interest/choices on an industry and opens dialogue for industrial versus small farming operations. It also is not a black and white topic, contrary to what most of the students likely believe, so is a great opening for discussion.
- **Demonstration**

Week 3 “GMOs” slides. Part Three of “Food Inc.” a documentary
- **Competency-Based Applied Learning Activity**

Discussion based learning with slides providing material
- **Reading / Homework Assignment**

Readings from “Hungry for Change” – Food Science’s Golden Age; What we Know and Don’t Know About the safety of Eating GMOs; They Demand More So Should We. Omnivore’s Dilemma Chapters 3 and 4
- **Assessment**

4 – 6 Short Answer questions that establish students are doing the readings and relating the reading to class discussion.

Day 4: Antibiotics, Fertilizers, and Pesticides

- **Learning Objectives**
 - Understand Industrial Farming
 - Introduce inputs necessary for industrial utilization of soil - what are antibiotics, fertilizers, and pesticides
 - How do these inputs impact productivity in both the short term and the long term
 - What are the environmental impacts of these inputs
 - How does “Organic” relate to this paradigm?
- **Lecture**

This is our first deep dive into industrial farming practices and chemical requirements. It introduces environmental impacts, soil sustainability impacts and consumer impacts. It also discusses the necessity of industrial agriculture regarding it’s massive food production potential
- **Demonstration**

Week 4 “Antibiotics, Fertilizers, and Pesticides” slides. Discussion of Omnivore’s Dilemma reading
- **Competency-Based Applied Learning Activity**

Discussion based learning with slides providing material
- **Reading / Homework Assignment**

None
- **Assessment**

None

Day 5: Factory Farming

- **Learning Objectives**
 - Deep Dive into corn production
 - Understand how factory farming has impacted our food system – corn is the example here.
 - How much corn do we eat, how has farming practices impacted our choices?
 - How do government policies (fencerow to fencerow and subsidization) impact corn production, and ultimately consumer consumption of corn products
- **Lecture**

This is a wrap up of what we've learned so far about factory farming and its overall impact on our food system. We watch "King Corn" as insight into corn production and how it has dramatically changed our eating habits and consumer behavior. We also close out Omnivore's Dilemma chapters on factory farming here.
- **Demonstration**

Finish up any slides we haven't gotten through, watch "King Corn" a documentary, and discuss Part 1 of Omnivore's Dilemma
- **Competency-Based Applied Learning Activity**

Discussion based learning with a documentary and readings providing material
- **Reading / Homework Assignment**

Hungry for Change:

 - The Indignity of Industrial Tomatoes
 - Most Good, Least Harm
 - Feed the World
 - Food is Cheap at Market, but Costs a lot Elsewhere
 - Can Organic Farming Feed the World?
 - US Farming Subsidies
 - Fear Factories
 - Factory Farms and Air Pollution

Omnivore's Dilemma, chapters 5 and 6
Example: Professional Cooking – Chapter 1, 3 (p. 1-14, 41-62) – for next class period
- **Assessment**

4 – 6 Short Answer questions that establish students are doing the readings and relating the reading to class discussion.

Day 6: Local Hunger and Global Food Waste

- **Learning Objectives**
 - Understand hunger/food security statistics both internationally and nationally
 - Relate hunger statistics to NWA – in a land of plenty, why does hunger exist here?
 - Government intervention into food security – what is available, how does it work, and how does government policy impact our food system (subsidies etc.)
 - Where in the food system is food wasted, and how much is lost?
 - Relate food waste to the food industry these students are entering. Discuss campus kitchen, waste at the restaurant level, and options to drive change in these numbers.
- **Lecture**

We change gears here to discuss how food is distributed and what consumption looks like both nationally and internationally.
- **Demonstration**

Week 6 Local Hunger and Global Food Waste slides

- **Competency-Based Applied Learning Activity**
Discussion based learning with slides and readings providing material
- **Reading / Homework Assignment**
None
- **Assessment**
None

Day 7: Health, Obesity and Food as Public Policy

- **Learning Objectives**
 - How do we eat? What influences our behavior?
 - Do consumers drive producers or do producers drive consumers? Examples of both
 - Food policies that impact consumer behavior (ex subsidizing corn leading to HFCS, leading to a boom in the soda industry, leading to increased diabetes (Type 2)
 - Understanding the true costs of the obesity epidemic and the food system's role
- **Lecture**
In this lecture we dive into how policy and the food system itself have impacted our health. The interrelation between consumer demand and producers drivers. Examples of how the food system has impacted overall health, including obesity levels, and how government involvement has played a role.
- **Demonstration**
Week 7 Health, Obesity and Food as Public Policy slides
- **Competency-Based Applied Learning Activity**
Discussion based learning with slides and readings providing material
- **Reading / Homework Assignment**
Hungry for Change:
 - The Ecology of Food
 - How to Save a Trillion Dollars
 - Is the Rise of Food Prices all Bad?
 - The aborigine in All of us
 - What do you Eat in January?
 - Still No Free Lunch
 - Joel Salatin
 - Fair Trade
 - Child Slavery
 - The Price of Tomatoes
 Omnivore's Dilemma, Chapters 7 and 8
- **Assessment**
4 – 6 Short Answer questions that establish students are doing the readings and relating the reading to class discussion
Mid Term: Meal Planning and Shopping for a Family of Four - \$90 for the week. The intent is to look at the normal consumer in the U.S. and understand how and why they make the food choices that they do. Class discussion follows.

Day 8: Mid-Term Project

- **Learning Objectives**
 - Understand the US food production system – who are the people that work in farming and processing? How do “ethics” play a role in our food choices?
 - What laws are in place that protect workers generally and how do they relate to agricultural workers?

- How are animals grown for consumption protected? What are the requirements for living conditions?
- How can the food industry drive change? What would the impact be on our food prices and economy? What about global impacts?

- **Lecture**

This lecture is primarily looking at human service to agricultural industry. To a lesser extent we do discuss animal welfare as well. We consider both global and national agricultural workers and practices protecting safety, health and welfare of these workers. A key takeaway is that our food system relies on itinerant, often illegal immigrants with little to no protections that otherwise apply to other industrial segments, leading to an ethical dilemma for human rights.

- **Demonstration**

Week 8 Ethics of Labor on the Land slides and “Food Chains” a documentary

- **Competency-Based Applied Learning Activity**

Discussion based learning with slides and documentary as basis for discussion

- **Reading / Homework Assignment**

None

- **Assessment**

None

Day 9: Ethics of Labor on the Land

- **Learning Objectives**

- How is food distributed in the United States? What are statistics showing food system impacts based on race, socioeconomic position, and geography?
- What is a food desert? (Rural and Urban)
- What variables impact the availability of nutrition, affordable food? Transportation, socioeconomic factors, culture, race, etc.
- How have change-makers impacted this issue?
- Relate back to industrial farming, and changes in the rural communities – interesting discussion regarding the loss of rural communities and the paradox of food deserts surrounded by farms.

- **Lecture**

This topic dives into the inequities in distribution of food. How a food desert can have food with triple to quadruple pricing for less nutritious options. Lack of transportation, financial stability of a community, even cultural food norms can impact nutrition in a community. This is a great topic to discuss change at the lower level, and potential impact to an entire community.

- **Demonstration**

Week 9 Race, Class and Food Deserts Slides. Plus several Youtube videos regarding urban gardening, food recovery, and alternative food options to impact this issue.

- **Competency-Based Applied Learning Activity**

Discussion based learning with slides and short videos for basis of discussion

- **Reading / Homework Assignment**

Hungry for Change:

- The Lowdown on Topsoil

Omnivore’s Dilemma Chapters 9 and 10

- **Assessment**

4 – 6 short answer questions to assess whether students did the reading and how they relate the content to class discussions

Day 10: Local Food System Infrastructure

- **Learning Objectives**

- Midterm Discussion – what did we learn from the experiment? Guest speaker from a major retailer with customer insights on the SNAP program. Goal, understand what drives consumer decisions that may be less nutritious/healthy versus cost.
- Farming as an industry – with patents, ownership, and capitalism – how this impacts the overall food system
- Food TYPE options – if selecting produce and other fresh products, what decisions can be made – and how will price and availability be impacted by the “ownership” element of seeds and stock.
- Examples for discussion – corn, wheat, tomatoes, oranges, and Angus beef

- **Lecture**

The goal of this discussion is to consider how the actual industry, with capitalism, patents, research, development, etc. impact what is available to us and for what cost. The prior “Land grant universities” paradigm versus the Monsanto paradigm. How does this impact what we grow and what we raise? What about environmental externalities? Who owns the air rights, water rights, soil rights? This introduces the next several lectures.

- **Demonstration**

Week 10 slides Seeds, Soil and Sovereignty. Guest lecture to guide discussion of the Mid-Term activity.

- **Competency-Based Applied Learning Activity**

Discussion based learning with guest lecture and slides for basis of discussion

- **Reading / Homework Assignment**

None

- **Assessment**

None

Day 11: Race, Class and Food Desserts

- **Learning Objectives**

- What is a “Supply Chain”?
- How does a supply chain work for fresh produce, meat, normal grocery, etc?
- How does the supply chain impact the food system? Example would be seasonal food availability
- Why would an orange be a treat in a Christmas stocking 50 years ago? Why not now?
- International supply chain – how has it added complexity to food safety and security?

- **Lecture**

How we get our food is a huge element of our food system, one that has driven significant change to our normal behaviors. What food we eat, when we eat it, and how we eat it are all impacted by our supply chain. Creating an understanding of this, and how it would impact restaurant food choices is key.

- **Demonstration**

Week 11 slides Sourcing and Supply Chain, with a guest lecturer from Walmart and a discussion from our own procurement specialist to discuss big picture and little picture elements.

- **Competency-Based Applied Learning Activity**

Discussion based learning with guest lecturers for basis of discussion

- **Reading / Homework Assignment**

Hungry for Change:

- Gardening as Politics
- Assault on Nature
- Water, Will there be Enough?

Omnivore’s Dilemma Chapters 11 and 12

- **Assessment**

4 – 6 short answer questions to assess whether students did the reading and how they relate the content to class discussions

Day 12: Sourcing and Supply Chains

- **Learning Objectives**
 - How is water used in our agricultural system?
 - Water limitations and “recharge”
 - Initiatives to limit water consumption
 - Short term and long term impacts of fresh water consumption in agriculture
 - Introduce next weeks topic, local food system infrastructure, define what is a local food system compared to an industrial food system.
- **Lecture**

Water consumption is a significant element of our agricultural system and one that many don’t understand is of significant concern. This topic discusses the impact of a fresh water shortage and also opens dialogue on interesting forward-thinking agricultural practices that address both soil/space and water consumption sustainability.
- **Demonstration**

Week 12 slides Water: People vs. Profits
- **Competency-Based Applied Learning Activity**

Discussion based learning with slides as basis of discussion
- **Reading / Homework Assignment**

None
- **Assessment**

None

Day 13: Seeds, Soil and Sovereignty

- **Learning Objectives**
 - How do local farmers/value-add providers market and sell their products?
 - What are the limitations from a regulatory perspective on local food systems? How does this assist/inhibit success?
 - Understand the synergy between restaurants and local food systems
 - How is the local food system changing, what can we expect to see in the next decade?
 - Examples of alternative farming methods
- **Lecture**

We’ve spent the semester looking at more traditional farming. In each section we’ve had small discussions about local smaller food systems, but this is our opportunity to go in depth into a “nontraditional” food system. We discuss small agriculture, the issues with marketing and sales given the smaller production, as well as the obstacles regulations intended for industrial farming can create on smaller farms. In additional, we discuss what is available, when, and what the cost impacts will be. Note, we will also be preparing questions for the following weeks roundtable.
- **Demonstration**

Week 13 slides Local Food Systems
- **Competency-Based Applied Learning Activity**

Discussion based learning with slides as a basis of discussion
- **Reading / Homework Assignment**

Omnivore’s Dilemma Chapters 13 and 14
- **Assessment**

4 – 6 short answer questions to assess whether students did the reading and how they relate the content to class discussions

1 essay question (one page discussion) about how the food system (industrial and local) would impact their choices for their future food industry jobs.

Day 14: Water: People vs. Profits

- **Learning Objectives**

- What are the realities, constraints and benefits of working with the local food system for a restaurant/food provider?
- How do you plan menus when purchasing from local producers?
- How do you educate consumers on expectations? (Ex meat that looks different, “ugly” vegetables, seasonally available produce)
- Food waste discussion with local producers and chefs
- Lessons learned...

- **Lecture**

This is a round table bringing together local chefs that focus on “local” and “seasonal” as well as local producers of both produce and protein. The intent is to walk through the realities of focusing on local – when would you do it, when do you throw in the towel, what’s easy, what’s not, and how you deal with consumers who expect strawberry shortcake in December. Student will have prepared questions from the last class.

- **Demonstration**

Roundtable discussion between chefs, producers and students walking through the realities of the local food industry as it creates relationships between local producers and local chefs.

- **Competency-Based Applied Learning Activity**

Question and Answer session with subject matter experts.

- **Reading / Homework Assignment**

None

- **Assessment**

None

Day 15: Round Table, Final Project Presentations

- **Assessment**

Student Final Presentations: 5 – 10 page research paper on a topic of their choosing (and approved by me) in an area of interest of our food system.

Class time will be a wrap up – discussion of jobs in the food systems paradigm, impacts that they can have, and general discussion on how what we’ve learned will change (or not change) their personal consumer habits as well as their potential business relationship with both industrial and local food systems.