# FN 246 Advanced Foods Fall 2010

**Course Description**: 3 cr. Investigate interplay between food compositions, chemical and physical interactions in food preparation. Develop techniques for quantity food production with consideration of sustainable practices. Introduce menu planning variables and demonstrate menu planning for various populations. Prereq: FN 106 and Chemistry 106.

**Class Schedule**: Lecture Tues/Thurs 2:00-2:50 pm CPS 210

Lab 3:00-5:50 pm CPS 211

**Instructor:** Dr. Jasia Steinmetz, RD, CD, M.S.-Epidemiology

202 CPS 346-4087

Email: [jsteinme@uwsp.edu](mailto:jsteinmet@uwsp.edu)

Office hours: Tuesday and Thursday 9:00 am or by appointment

Purpose: The purpose of this class is to provide a deeper understanding of food, food preparation and the interplay between people and cuisine. You will build on your personal knowledge of food and food preparation and the background of FN 101 to apply more complex scientific understanding to the food preparation process. We will also discuss how cuisines develop and how this may influence our professional practice and enjoyment of food. As in all of our Dietetic courses, the knowledge and skills as described by the Commission on Accreditation for Dietetics Education (CADE) provides the template in this class. Additionally, the vision and mission of UWSP help us develop as lifelong learners and citizen leaders of the world. The following is an overview of our course.

**Stage 1: Desired Results**

**Commission for Dietetic Education: Foundation Knowledge Requirements and Learning Outcomes for DPDs**

**2. Professional Practice Expectations: beliefs, values, attitudes and behaviors for the professional dietitian level of practice.**

Knowledge Requirement: KR 2.1 The curriculum must include opportunities to develop a variety of communication skills sufficient for entry into pre-professional practice.

KR 2.1.a Learning Outcome: Students are able to demonstrate effective and professional oral and written communication and documentation and use of current information technologies when communicating with individuals, groups and the public.

KR 2.1.b Learning Outcome: Students are able to demonstrate assertiveness, advocacy and negotiation skills appropriate to the situation.

**4. Practice Management and Use of Resources: strategic application of principles of management and systems in the provision of services to individuals and organizations**

Knowledge Requirement: KR 4.2 The curriculum must include content related to quality management of food and nutrition services.

KR 4.2.a Learning Outcome: Students are able to apply safety principles related to food, personnel and consumers.

KR 4.2.b Learning Outcome: Students are able to develop outcome measures, use informatics principles and technology to collect and analyze data for assessment and evaluate data to use in decision-making.

**5. Support Knowledge: knowledge underlying the requirements specified above.**

Knowledge Requirement: SK 5.1 The food and food systems foundation of the dietetics profession must be evident in the curriculum. Course content must include the principles of food science and food systems, techniques of food preparation and application to the development, modification and evaluation of recipes, menus and food products acceptable to diverse groups.

**Enduring Understandings:**

*Students will understand that…*

* Cuisines are reflective of the geography (resources & climate) and culture of society.
* Foods (grain, meat/fish/poultry, vegetables, fruits, dairy) have common capabilities which react similarly. These capabilities are the scientific principles of cooking.
* Creativity in cooking (different products) comes from the chef using her/his imagination to use unique foods combined in unique steps.

**Essential Questions:**

* Should we change our geography to grow different foods?
* What are the common capabilities of classes of food?
* What are some common procedures in food preparation?
* How can foods be combined in creative ways? What guides this?

**Knowledge (Know):**

Students will/can…

* Describe acceptable standards of food quality.
* Identify and evaluate common food products and seasonal foods in terms of characteristics such as appearance, consistency or texture, flavor, and tenderness
* Explain the basic scientific principles or underlying facts which govern cooking processes.

**Skills (Be able to):**

Students will/can…

* Demonstrate team leadership skills
* Prepare foods of the highest quality in an efficient manner.
* Apply sustainable principles while preparing food. Maximize all resources, including the ingredients, equipment, economics and time.

**Dispositions (Value/Appreciate):**

Students will/can…

* Increase awareness of cultural cuisines.
* Discuss pleasurable eating in different contexts

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| **Stage 2 – Assessment Evidence** |

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| **Core Performance Task:**  Goal: Develop a three week cycle menu based on seasonal ingredients and adapt one week for the school lunch program.  Role: Member of a planning team for food service management and acting nutrition consultant.  Audience: CPS café customers and high school students  Situation: Using the CPS menu as a template, you will plan a three week menu which is based on the mission and goals of the CPS café to serve sustainable, local food that is pleasurable and healthy.  Purpose/Product: A three week cycle menu with one week adaptation that focuses on the enduring understandings of advanced food preparation.  Standards: As part of this assignment you will:   * Demonstrate menu planning ability considering the following: economics, facilities and equipment, nutrition, health restrictions, and management considerations. * Modify recipe/formula for individual or group dietary needs * Work effectively as a team member * Role of food in promotion of a healthy lifestyle * Promotion of pleasurable eating   **Relationship to Enduring Understandings:**  The cycle menus will reflect your knowledge of seasonal foods, sustainability and understanding of the local cuisine. You will be able to demonstrate your creativity in menu development while considering pleasurable eating.  **Other Assessment Evidence:**   * Attendance and participation in class * Lab attendance and participation, culminating in the blind basket activity * Exams * Electronic portfolio |

***Assignments, Policies and Considerations:***

**Note: No late assignments will be accepted. Please note the due dates on the syllabus and plan your schedule accordingly and submit each assignment on D2L by the due date. Early assignments are appreciated.**

1. **Required Text and Readings:**

You are required to read:

* The Culinary Institute of America. The Professional Chef 7th edition. John Wiley and Sons, New York 2002 (text rental)
* McGee, H. On Food and Cooking: The Science and Lore of the Kitchen. Scribner, New York, 2004 (purchase)
* New York Times: skim for daily news related to food, food supply and health trends. Read the Food section (published on Tuesday)

1. **Attendance and Participation** (10 pts):

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Attending class meetings and labs are requirements and professional expectation of the course. If you must miss class, please send an email to Dr. Steinmetz before the missed class or as soon as possible afterwards to say you will be missing and the date**. If you do not send an email regarding the absence, it will be considered unexcused and points will be deducted from your attendance and participation score.** One excused absence is allowed with no loss of points, but for each absence after that, five points will be deducted from your attendance and participation score up to 20 points. Valuable class information including changes in syllabus schedule and course content, are announced in the first 5 minutes of the class. You are responsible for all missed material. Please be willing to share your class notes with peers or obtain notes from peers. After reviewing class material, please schedule an appointment with me if you have questions or want to further review missed material.

We will use D2L for formal communication about the course. I will post messages on the front page “news”. All course related handouts, lecture material, supplementary readings will be posted under the course “content”. Grades will be recorded in the “grades” section. All assignments should be posted in the “dropbox “section by the scheduled due date.

The use of cell phones, except in occasional cases of emergency, will not be allowed during the class. You may take notes on your laptop, if desired.

1. **Food Lab** (20 points):

Each day you will demonstrate your understanding of food science and culinary skills in the kitchen. As you become more proficient, you will be expected to demonstrate a greater role in leadership in a team setting, using the professional kitchen as the setting for applying your skills in resource management, attention to detail, creativity, problem solving, active engagement and peer support. Missed lab points may not be recovered since this requires your active participation and personal observation. Lab points are based on your assessment, completion of the lab report/reflection and Dr. Steinmetz’ observations.

1. **Fresh produce activity** (30 points):

Cuisine is based on the available food in a specific geographic location. Skills in identifying and utilizing local food contribute to a sustainable food system and ability to educate others about food. You will expand your knowledge of the local farmer’s market by conducting a market survey and food comparison. This activity is the foundation to menu planning and learning to discern differences in varieties of food.

1. **Cycle Menus** (50 points):

Menus are used to highlight cuisine and to help maximize resources while providing pleasurable eating. You will work in pairs to develop a three week cycle menu which reflects a sustainable food system, be appealing for teenagers and meet the USDA guidelines for the National School Lunch program. Increasingly, nutritionists are asked to assist schools by increasing the wellness of the school environment in a variety of ways. The school breakfast and lunch programs are effective in promoting optimal health and educating students about food in our world. Menus also reflect careful planning and consideration of resources, population preferences, food availability and affordability and equipment needs. Menus are based on available skills and knowledge of staff as well as kitchen equipment and facilities. Active participation and observation in class, lab and community will help you achieve success in menu planning.

1. **Exams** (150 points):

There will be three scheduled exams which will include all material discussed in class and lab. Course material builds upon your foundation knowledge from FN 106. The course is structured to provide a logical flow of scientific knowledge with application of food principles. Successful preparation includes completing and comprehending all assigned readings, being inquisitive and thoughtful participation in the kitchen.

1. **Blind Basket** (25 points):

The culminating kitchen experience is the blind basket activity. You will demonstrate the skills and knowledge that you have gained in the kitchen by individually creating a dish from a tray of ingredients. The following enduring understandings are applied in this activity. 1) Foods (grain, meat/fish/poultry, vegetables, fruits, and dairy) have common capabilities which react similarly. These capabilities are the scientific principles of cooking. 2) Creativity in cooking (different products) comes from unique foods combined in unique steps.

1. **Portfolio** (10 points):

Portfolios are tools that demonstrate your progression of learning and are useful in assessing your development of knowledge and skills. All dietetic students will be expected to develop an electronic portfolio this year. The nutrition faculty will be having evening instruction that will guide your portfolio on D2L. In this class, you will establish your portfolio and post your cycle menu as an artifact on your electronic portfolio this year.

**Grading Procedures:**

You will receive credit based on the following point system:

**Graded Assignments:**

Class participation (self and instructor evaluation) 20 points

Food lab principles and evaluations (10 pts each) 100 points

Fresh Produce Activity (group activity) 30 points

Cycle Menu (group activity) 50 points

Quizzes (3) 150 points

Blind Basket 50 points

Portfolio 10 points

Total 410 points

**Grading Scale:**

Grade Percentage

A 95-100%

A- 90-94

B+ 87-89

B 83-86

B- 80-82

C+ 77-79

C 73-76

C- 70-72

D+ 67-69

D 60-66

F < 60

**Note: The grading scale is based on a point system, not an average. This is automatically calculated on D2L. Therefore, no rounding occurs when final grades are posted. For example, 539/600 points which = 89.8% is still a grade of B.**

**Tentative Schedule**

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| **Week of:** | **Topic** | **Readings**  **Please check D2L for additional readings/resources** | **Food Preparation** |
| Sept. 2 | Introduction: syllabus |  |  |
| Sept. 6 | Sept. 3rd: Introduction, , tastes and senses  Sustainable professional kitchen  Tuesday: Professional kitchen organization, culinary approach, demonstration of skills, chocolate chip cookie preparation,  Thursday: **Farmer’s market assignment** | CIA: 1, 8, 34, 36  McGee: 14 and 15 | demonstrate basic baking skills: cookies and muffins  Flight of farm produce |
| Sept. 13 | Menus, seasonal foods, HACCP  Stocks and baking pastry | CIA: 4, 14, 15, 34, 36  McGee: 1, 2 and 10 | demonstrate pie crust skills, Stocks |
| Sept. 20 | Soups, poultry and batters | McGee: 3 and herbs and spices from chapters 5 and 8  CIA: 17, 18, 19, 20 | Soups  Roasting chicken  Batters |
| Sept. 27 | Cakes and fillings  Quiz #1 | CIA:37, 38 | Cakes and fillings  Flight of chocolate |
| Oct. 4 | Yeast Breads and Sauces  **Menu planning assignment** | McGee: 10  CIA: 16, 35 | Yeast breads,  Sauces  Flight of cheese |
| Oct. 11 | Intermezzo |  |  |
| Oct. 18 | French meal (Vegetables) | McGee: 5, 6 and 9  CIA:7, 24, 25, 27, 28 |  |
| Oct. 25 | Italian meal (Pasta and grains)  **Cycle menu presentation** | McGee: pp. 571-77  CIA: 7, 24, 27, 28 |  |
| Nov. 1 | Jewish meal (Fruit) | McGee 7, 12  CIA: 34, 35 |  |
| Nov. 8 | Indian meal (Legumes)  **Quiz #2** | McGee: 9  CIA: 6, 27 |  |
| Nov. 15 | Southwest and Mexican meal | CIA: 5, 27, 32,33 |  |
| Nov. 22 | Thanksgiving celebration: blind basket |  |  |
| Nov. 29 | Classic French menu (Eggs and gels) | McGee: 2  CIA:29, 30, 32 |  |
| Dec. 6 | Blind Basket Exam |  | **Blind basket exam** |
| Dec. 13 | **Quiz #3, lab clean up,** |  | Clean up |
| Dec. 15 | **Final Exam 10:15-12:15** |  |  |

**The contents of this syllabus are as complete and accurate as possible. The instructor reserves the right to make any changes necessary to the syllabus and course material. The instructor will make every effort to inform the students of changes as they occur. It is the responsibility of the student to know what changes have been made in order to successfully complete the requirements of the course. Any in-class announcement, verbal or written, is considered official addendum to this syllabus.**

**Students with special needs should contact the instructor as early in the semester as possible to make any necessary class/test accommodations**.

**Recommended Study Strategies**

1. Review FN 106 notes that are relevant to the topic. We are building on your base of food and cooking knowledge. (Be sure to save and organize your notes throughout your food courses.)
2. Review each chapter and/or assignment prior to lecture
3. Attend all lectures
4. During lecture:
   1. Develop an effective note taking strategy
   2. Identify key words and concepts – use this when referencing the text/notes later to identify the detail required to obtain full understanding of material
5. After lecture study the material again:
   1. Rewrite or type your notes. Use this time to generate questions for the next lecture.
   2. Identify terms and food principles. This is the language of cooking and essential to master for you to apply these in the kitchen.
   3. Maintain a pace with your reading and studying
   4. Repetition has been extremely helpful for most individuals to gain an understanding of the material in this class. Trying to learn all content a day or two before the exam is not recommended and rarely results in success.
6. Learn material in small portions. Learn the parts and then put it together as a whole
7. It is important to integrate the lecture, lab and readings. The course is designed so that you should recognize and be able to manipulate the properties of food, i.e. demonstrate this knowledge in kitchen as well as be able to describe this on the exam.
8. To be an able chef, you must practice outside of class. Both the techniques and familiarity with food cannot be accomplished within the limits of the class and lab. Consider every time you shop and prepare food as part of your homework. Practice the techniques and be adventurous with your food preparation. Cooking is a science but also an art.
9. At the first sign of academic difficulty, meet with me during office hours or after class or by appointment to get help.

**Culinary websites:**

Epicurean: <http://www.epicurean.com/>

Epicurious: <http://www.epicurious.com/>

<http://www.starchefs.com/>

Donna Hay (an Australian cook and entrepreneur): <http://www.donnahay.com.au/>

Farm Girl Fare (from rural Missouri) <http://www.foodiefarmgirl.blogspot.com/>

The French food and cook: <http://www.ffcook.com/index.htm>

Food and Wine: <http://www.foodandwine.com/>

Karina-s Kitchen (gluten free cooking): <http://glutenfreegoddess.blogspot.com/>

Leites Culinaria: <http://www.leitesculinaria.com/>

Lunch Lessons (tips on healthy, yummy lunches for everyone): <http://www.lunchlessons.org/index.html>

Seasonal chef: <http://www.seasonalchef.com/index.htm>

**Kitchen Lab:**

**Required Tools and clothing for lab:**

* Chef’s knife, purchase independently
* Apron (from Lisa Ebert in HPHD office)
* Chef’s beret (from Lisa Ebert in HPHD office)
* Short sleeve shirt

**Procedure:**

1. Recipes will be assigned on the Thursday prior to lab. This will give you time to review the recipes, ask any questions, and plan. You will also be able to determine the principles being tested during that lab day. (prior to lab)
2. Announcements, demonstrations or directions by Dr. Steinmetz (first 10-15 minutes of lab)
3. Finalize mise en place\* (15 minutes)
4. Prepare the recipes. (1.5-2 hours)
5. Present and be prepared to discuss the recipes. (15 minutes)
6. Clean and sanitize (20-25 minutes)

**Quality and Economy:**

1. We will use the freshest, highest quality ingredients with conscious effort.
2. You will be required to optimize ingredients. This means being familiar with the ingredient, the correct preparation and method of cooking as well as proper storage. For example, peeling a vegetable requires proper washing, trimming of nonedible parts parsimoniously and peeling with a vegetable peeler (not a paring knife).
3. As a gesture of goodwill and pride, we will invite others into the lab to sample any leftovers. Faculty and students in the building will be invited. This will alert other people to the quality of your work and introduce them to the culinary world.
4. Leftovers may not be taken from the lab without permission.

**Professionalism:**

1. Positive attitude: A cook with a positive attitude works quickly, efficiently, neatly and safely.
2. Ability to work with people: Food service work is teamwork. Be personable but not disruptive. Share your knowledge and skills with others.
3. Eagerness to learn: Successful cooking requires skill, experience, inquiry and an adventurous spirit.
4. Dedication to quality: Gourmet food is food well-prepared. This requires the knowledge and *desire* to produced quality food.
5. Understand the basics: In order to be innovative, you have to know where to start from. Develop a solid grounding of vocabulary, techniques, methods and ingredients.

**Personal hygiene:**

1. You must have the FN apron. These can be purchased from the HP/HD office. All clothing must be clean.
2. All hair must be pulled back and covered with the chef’s beret. Do not put on your beret in the food lab.
3. Only **short** sleeve shirts will be allowed in the kitchen. No hooded shirts will be allowed.
4. Do not work with food if you have any communicable disease or infection.
5. You must wear closed toe shoes and wear socks.
6. Wash hands and exposed parts of arms before work (20 seconds) and as often as necessary during work.
7. Cover coughs and sneezes and then wash hands.
8. Keep your hands away from your face, eyes, hair and arms.
9. Keep fingernails clean and short. Do not wear nail polish or fake nails.
10. Do not chew gum while in the lab.
11. Cover cuts or sores with clean bandages and use work gloves.
12. Do not sit on worktables.
13. Keep all books, bags, etc. in lockers. You may bring in the CIA text, the lab assignment sheet and a sheet for notes. Keep all notebooks in your lockers.
14. Students who are not properly attired or who do not follow personal hygiene will not be allowed to participate in the lab that day. Nor can the lab be made up.
15. "Keep fingernails clean and short. Acrylic or fake nails and nail polish are not permitted in lab. Students will be given a warning on the first occurrence; subsequent occurrence(s) will result in dismissal from lab. There are no opportunities to make up for missed lab points."

**Sanitation:**

1. All equipment must be sanitized and stored properly at the end of the lab.
2. All work surfaces must be cleaned and sanitized using the following procedure: wash with a detergent solution, sanitize with the sanitizing solution and a clean cloth used only for this purpose, air dry.
3. Your lab station must be checked by the instructor before leaving the lab.

**Grading:**

1. **Labs points include attendance and the lab report. No opportunity exists for making up missed labs. The total lab points are calculated considering one missed lab or dropping the lowest lab score, if all the labs are attended.**
2. **If you are not following the safety procedures, including required attire, you will be given one warning, the next time this occurs you will be dismissed from lab and forfeit the points.**
3. Each lab unit will be assessed on preparation, efficiency, thoroughness and quality of the product.
4. Sustainable practices are also considered. This include placing foods not utilized in containers to be refrigerated, putting produce in the stock pot or when appropriate, the compost bucket. This also includes recycling all possible materials rather than in the garbage. Sustainable practices also include peeling and cutting to utilize as much of the raw product as possible or using a rubber scraper to remove as much from a pan or bowl as possible. These practices are both economically and environmentally sustainable.
5. Individually, you will be responsible for preparing a lab report.
6. Lab principles and questions will be included in the exams.
7. It is expected that you will improve in culinary technique, focus and sustainable practices as the lab progresses.

**\*Mise en place**

Mise en place is the primary organizational principle in all cooking. It means “everything in its place”. It is as much a mental organization as a physical one. Arrange to have as few distractions as possible. Minimize conversation or you will may make a mistake or miss an ingredient. Successful cooking requires focus.

Key steps to mise en place:

* Know the organization of the kitchen. Become familiar with the type of equipment, its appropriate use and where it is stored. Keeping a well-organized kitchen can save time and increase efficiency.
* Prior to lab day, read the instructions from start to finish and visualize how you will accomplish each step. This will help with visualizing the distribution of work in your team and the timing of the experiments. Determine the principles which underlie the food preparation.
* Assemble your tools.
* Assemble your ingredients.
* Wash, trim, cut, prepare and measure your raw materials.
* Prepare your equipment (preheat oven, line baking sheets, etc.)