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### CULA 210.01: Nutritional Cooking

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CULA 210-SP16-Elliott

**THE UNIVERSITY OF MONTANA—MISSOULA  
MISSOULA COLLEGE  
BUSINESS TECHNOLOGY DEPARTMENT**

**COURSE SYLLABUS**

**COURSE NUMBER AND TITLE:** CULA 210—Nutritional Cooking

**DATE REVISED:** Spring 2016

**SEMESTER CREDITS:** 3

**PREREQUISITES:** CULA 101 and CULA 105, or consent of the instructor

**FACULTY:** Aimee Elliott, CCC

**E-Mail:** aimee.elliott@umontana.edu

**Phone:** 243-7880 (office), 243-7815 (kitchen)

**Office:** GH5

**Office Hours:** Mondays, 2pm – 3pm; or by appointment

**COURSE DESCRIPTION:** To introduce a hands-on approach to principles of healthy and nutritious culinary procedures. Adjustment of classic methods to suit preparations designed to extend variety on “lighter” menus. To describe the characteristics, functions, and food sources of the major nutrients and how to maximize nutrient retention in food preparation and storage. To apply the principles of nutrient needs throughout the life cycle to menu planning and food preparation.

**STUDENT PERFORMANCE OUTCOMES:**

Occupational Performance Objectives

Upon completion of this course, the student will be able to:

1. List the major food groups and understand portion size and control for each group. List the macronutrients contributed by each of the food groups.
2. Discuss the current dietary guidelines and adapt recipes accordingly.
3. Evaluated diets in terms of the recommended dietary allowances.
4. List the primary functions and best sources of each of the major vitamins and minerals.
5. Describe the process of human digestion.
6. Calculate energy needs based upon basal metabolic rate and exercise expenditure.
7. Select ingredients with care to design menus emphasizing high-quality, fresh, seasonal ingredients.
8. Store and prepare foods to ensure best flavor, texture, color and nutritional value.
9. Categorize foods into exchange groups and plan menus applying the exchange system.
10. Incorporate a variety of plant-based dishes emphasizing grains, legumes, and fruits.
11. Identify common food allergies and determine appropriate substitutions.
12. Manage the amount of fat used as an ingredient and in preparation.
13. Discuss contemporary nutritional issues such as vegetarianism, heart healthy menus and religious dietary laws.
14. Demonstrate a variety of seasonings, preparation methods, and cooking techniques to reduce reliance on salt.

**STUDENT PERFORMANCE ASSESSMENT METHODS AND GRADING PROCEDURES:**  
**Production and Testing**

1. Students will be required to demonstrate daily production assignments requiring pre-planning of methodology and recipes. Recipes must be read and understood by the student before attending class. Students will be evaluated on teamwork, professionalism, mise en place, production guide/timelines, plating diagrams, quality of finished product, sanitation and organizational skills. All assignments, projects and tests will be assigned point values. It is the responsibility of the student to obtain quiz and daily production scores.
2. Lecture classes will not be graded on daily production, but participation and class attendance. The attendance policy directly influences grades obtained in lecture.
3. The quiz schedule and dates are posted in introductory content area of Moodle shell. Quizzes will be written and given during class time. Makeup for a missed test is not offered.
4. It will be the student's responsibility to complete the assigned competencies and course requirements.

**Grading Scale:**

90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D

**Evaluation Criteria:**

Quizzes	15 percent
Projects	30 percent
Daily Production (Lab)	25 percent
Practical Exams	20 percent
Final Exam	10 percent

**Total: 100 pts**

**ATTENDANCE POLICY:**

Because of the nature of the Culinary Arts Program, participation and teamwork is vital. It is primarily lab oriented and your daily participation is essential. This policy reflects industry standards. Our program and your peers value your attendance, participation, and professionalism.

- For every missed day of class, 5 points will be taken off of your final grade in addition to any points lost for class work, tests, sanitation, participation, etc.
- Due to the loss of curriculum and instruction time; if you miss 5 days or more, of any course, you will receive an incomplete (I) in the course and must take it again. Be aware that this does effect financial aid and grade point average.
- There are no acceptable excuses that will prevent the loss of points. This includes doctor's notes, police reports, deaths, extenuating circumstances, or acts of God.

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- This policy is final and no exceptions will be made.
- This policy applies to the entire Culinary Arts Curriculum that begins with the CULA rubric.

### **PARTICIPATION:**

Students must demonstrate teamwork as consistent with industry. This is necessary as students contribute to the learning environment and become active learners by attending class and participating. Students who read text assignments prior to class will be equipped to participate and will obtain the most from this course. Participation points will be granted or denied depending on how the student exhibits enthusiasm, interest, teamwork, organization, and preparedness.

Daily production/participation will be assigned as follows:

- Production Schedule—1 pt
- Proper Uniform—1 pt
- Professionalism/Participation—1 pt
- MEP/Recipes/Plating and Station Diagrams—1 pt
- Sanitation—1 pt

### **ACADEMIC INTEGRITY:**

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at [http://life.umt.edu/vpsa/student\\_conduct.php](http://life.umt.edu/vpsa/student_conduct.php).

### **DISABILITY ACCOMMODATION:**

Eligible students with disabilities will receive appropriate accommodations in this course when requested in a timely way. Please contact me after class or in my office. Please be prepared to provide a letter from your DSS Coordinator. For more information, visit the Disability Services website at <http://www.umt.edu/dss/> or call 406.243.2243 (Voice/Text) or <http://www.umt.edu/dss>.

### **CULINARIAN CODE:**

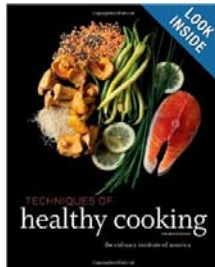
All students are expected to uphold all teachings of the American Culinary Federation's Culinarian Code:

As a proud member of the American Culinary Federation, I pledge to share my professional knowledge and skill with all culinarians. I will place honor, fairness, cooperation and consideration first when dealing with my colleagues. I will keep all comments professional and respectful when dealing with my colleagues. I will protect all members from the use of unfair means, unnecessary risks and unethical behavior when used against them for another's personal gain. I will support the success, growth, and future of my colleagues and this great federation.

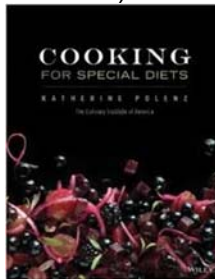
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**REQUIRED TEXTBOOK:**

The Culinary Institute of America, John Wiley & Sons, Inc., *Techniques of Healthy Cooking*, ISBN 978-047063543-8



Polenz, K. (2015). *Cooking for Special Diets*. John Wiley & Sons, Inc. (ISBN: 978-1-118-13775-8)



**SUPPLIES:** Knife kit, camera, calculator.

**CELL PHONE POLICY:** Cell phones are allowed in class only as a means to record photos for the final notebook.

**UNIFORM POLICY:** Students will be required to be in full Culinary Uniform to be accepted into class. Daily line-ups will take place and any student that is not in full uniform will be sent home and will lose participation points for the day.

**COURSE OUTLINE:**

All weekly plans, reading assignments, project due dates, and testing dates are to be delivered and explained the first day of class. Final comprehensive written and practical exam date will be announced at this time.

- |                              |                          |
|------------------------------|--------------------------|
| I. The language of Nutrition | e. Cholesterol           |
| a. Nutrients                 | f. Protein               |
| b. Calories                  | g. Water                 |
| c. Carbohydrates             | h. Vitamins and minerals |
| d. Fat                       |                          |
| II. The Pyramids/Diets       |                          |

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- a. The USDA Food Guide Pyramid
  - b. The Mediterranean Pyramid
  - c. The Vegetarian Pyramid
  - d. Gluten Free
  - e. Vegan/Vegetarianism
- III. The Elements of Flavor
  - a. Seeing flavor
  - b. Hearing flavor
- IV. Smelling flavor
  - a. Tasting flavor
  - b. Deconstructing flavor
- V. Fruits and Vegetables, Grains and Legumes
  - a. Grains and legumes
  - b. Phytochemicals and antioxidants
  - c. Plant based menu options
  - d. Fruits and vegetables
- VI. Cooking with Less Fat
  - a. The function of fat
  - b. Types of fat
  - c. Choosing the right ingredients
  - d. Choosing the right equipment
  - e. Replacing fat
  - f. Reducing fat
- VII. Moderating Salt
  - a. Sodium and hypertension
  - b. Hidden sources of sodium
  - c. Getting the most from the least
  - d. Highlighting natural flavors
  - e. MSG
- VIII. Sweeteners
  - a. Refined sugar
  - b. Nature's Sweeteners
  - c. Hidden sugar sources
  - d. Serving temperature
- IX. The Techniques of Healthy Cooking
  - a. Sautéing
  - b. Stir-frying
  - c. Grilling
  - d. Broiling
  - e. Roasting
  - f. Steaming
  - g. Shallow poaching
  - h. Boiling
  - i. Stewing and braising
- X. Agricultural Issues in Ingredient Selection
  - a. Sustainable agriculture
  - b. Organic farming
  - c. Free range poultry
  - d. Plant biotechnology
- XI. Menu and Recipe Development
  - a. The market place
  - b. Standards for menu development
  - c. Planning parameters
  - d. Using standard portions
  - e. Recipe development
- XII. Analyzing the Nutrient Content of Recipes
  - a. Methods of analysis
  - b. Variables of analysis
- XIII. Nutrition Labeling in Menus and Advertisements
  - a. Food labeling in the United States
  - b. Rules for menus and advertisement
  - c. Nutrient content claims
  - d. Health claims
  - e. Dietary guidelines
- XIV. Staff Training and Customer Communication
  - a. The service staff
  - b. The kitchen staff
  - c. Communicating Nutrition
- XV. Beverages
  - a. Health and alcohol
  - b. Cooking with alcohol
  - c. Beverage promotion