Fall 9-1-2006

CUL 165T.01: Baking and Pastry

Thomas L. Campbell
University of Montana - Missoula, thomas.campbell@mso.umt.edu

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COURSE NUMBER AND TITLE: FSM 165T Baking and Pasty

DATE REVISED: Fall 2006

CREDITS: 3

PREREQUISITES: CUL 151T, MAT 114T or consent of instructor

FACULTY:

Chef Thomas Campbell, director
Thomas.campbell@mso.umt.edu
243-7831
Office: Culinary Trailer
Hours: 7a.m.–3 p.m. or by appointment

COURSE DESCRIPTION:

Introduction of various ingredients and how they affect the finished product by giving a tender crumb and a well-developed crust. Six basic functions of ingredients and the techniques of scaling, pan preparation, sifting, chocolate, and pastry bag work.

STUDENT PERFORMANCE OUTCOMES:

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

1. Use appropriate language used in baking and pastry.
2. Utilize the six basic categories of function.
3. Select ingredients with care to produce high-quality baked goods.
4. Use a baker’s balance.
5. Calculate formulas based on baker’s percentages.
6. Apply the factors that control the development of gluten in baked products.
7. Explain the changes that take place in a dough or batter as it bakes.
8. Prepare yeast breads, rolls, sweet dough products, and Danish.
9. Prepare quick breads such as biscuits, scones, muffins, loaf breads, coffee cake.
10. List factors responsible for crispness, softness, chewiness, and spread in cookies.
11. Demonstrate the three basic cookie mixing methods.
12. Prepare the seven basic cookie types.
STUDENT PERFORMANCE ASSESSMENT METHODS AND GRADING PROCEDURES:

Students will be required to demonstrate daily production assignments requiring pre-planning of methodology and recipes. Students will be evaluated on teamwork, professionalism, mise en place, quality of finished product, sanitation and organizational skills. All assignments, projects and tests will be assigned point values. Total points earned will be divided by points possible, and a letter grade will be assigned based on the following:

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Grade Scale</th>
</tr>
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<tbody>
<tr>
<td>Tests</td>
<td>20 percent</td>
</tr>
<tr>
<td>90 – 100</td>
<td>A</td>
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<tr>
<td>Projects</td>
<td>20 percent</td>
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<tr>
<td>80 – 89</td>
<td>B</td>
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<tr>
<td>Daily Production</td>
<td>60 percent</td>
</tr>
<tr>
<td>70 – 79</td>
<td>C</td>
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</tbody>
</table>

ATTENDANCE POLICY:

Attendance will be taken. Students may miss two class sessions during the semester with no negative impact on grade. Each missed class thereafter will result in a 5-point deduction from final points accumulated. No make up is allowed for lab production. If students are absent for any reason, they will be accountable for any information disseminated and be held responsible for class notes, announcements of tests, and assignments.

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.

DUE DATES:

To receive full credit, assignments must be submitted by stated due dates. Late assignments will be lowered by 50 percent. No late assignments will be accepted after week 13.

TESTS:

Tests will be given during the semester as announced. Assignments for makeup tests will be made only if faculty is notified by voice mail, e-mail, or personally prior to the test. A score of zero will be averaged into grade determination for any missed test.

ACADEMIC HONESTY

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://www.umt.edu/SA/VPSA/index.efm/page/1321.
CELL PHONE POLICY:

Cell phones must be turned off prior to class.

UNIFORM POLICY:

Students will be required to be in full Culinary Uniform (See Addendum) to be accepted into class.

REQUIRED TEXT:


SUGGESTED REFERENCE MATERIALS:


SUPPLIES:

Standard culinary knife kit

COURSE OUTLINE:

Weekly plan, reading assignments, project due dates, and testing dates to be delivered and explained the first day of class. Final comprehensive exam date will be announced at this time.

I. Basic Principles of Baking
   A. Measurement
   B. Baker's Percentages
   C. Selection of ingredients
   D. Gluten
   E. Mixing methods
   F. Selection of flours
   G. Shortening
   H. Liquid
II. The Baking Process
A. Formation and expansion of gasses
B. Trapping the gases in air cells
C. Coagulation of protein
D. Gelatinazation of starches
E. Browning of the surface and crust formation

III. Scaling
A. Protecting the product from air
B. Adding moisture retainers to the formula
C. Freezing

IV. Flours, Meals, and Starches and Fats
A. Bread flour
B. Cake flour
C. Pasty flour
D. All purpose flour
E. Whole wheat flour
F. Rye flour
G. Starches
H. Shortenings
I. Butter and margarine
J. Oils

V. Sugars
A. Regular refined sugars, or sucrose
B. Molasses and brown sugar
C. Corn syrup
D. Glucose syrup
E. Honey
F. Malt syrup
G. Hidden sources of sodium

VI. Sweeteners
A. Refined sugar
B. Nature’s Sweeteners
C. Hidden sugar sources
D. Serving temperature

VII. Liquids
A. Water
B. Milk and cream
C. Eggs
D. Other sources of liquids
VIII. Leavening agents
A. Yeast
B. Baking soda
C. Baking powder
D. Baking ammonia
E. Air
F. Steam

IX. Yeast Product Types
A. Lean dough
B. Rich dough
C. Rolled – in yeast dough
D. Straight dough method
E. Modified straight dough method
F. Sponge method

X. Mixing Methods
A. Scaling ingredients
B. Mixing
C. Fermentation

XI. Baking Methods
A. Punching
B. Rounding
C. Benching
D. Makeup and panning
E. Proofing
F. Cooling and storing

XII. Cookie Characteristics
A. Crispness
B. Softness
C. Chewiness

XIII. Mixing Methods
A. Spread
B. One – stage method
C. Creaming method
D. Sponge method

XIV. Types of Cookies and Makeup Methods
A. Dropped cookies
B. Bagged cookies
C. Rolled cookies
D. Molded cookies
E. Icebox cookies
F. Bar cookies
G. Sheet cookies

XV. Panning, Baking and Cooling
A. Preparing the pans
B. Baking
C. Cooling