SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



CICE COURSE OUTLINE

COURSE TITLE: Bake Theory

CODE NO.: FDS142 SEMESTER: Fall

MODIFIED CODE: FDS0142

PROGRAM: Culinary Skill – Chef Training, Cook Apprentices,

Culinary Management

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MODIFIED BY: Marnie Bunting, Learning Specialist CICE Program

DATE: Sept PREVIOUS OUTLINE DATED: Sept 2014

2015

APPROVED: "Angelique Lemay" Sept 2015

Dean DATE

TOTAL CREDITS: 2

PREREQUISITE(S):

HOURS/WEEK: 1

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I. COURSE DESCRIPTION:

With the assistance of a Learning Specialist, the CICE student(s) will acquire a basic understanding of the fundamental requirements and skills within the baking industry, hotels, restaurants, and bakeries. Familiarity with techniques and products will allow CICE students to assist in making future purchasing decisions.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the CICE student will, with the assistance of a Learning Specialist, demonstrate the basic ability to:

1. Demonstrate a basic working knowledge of **flour** production and application.

Potential Elements of the Performance:

- a. Identify the botanical classification of wheat and rye. list the plants used in the production of flours.
- b. Identify the classes and varieties of wheat and rye flour. provide background information on flours.
- c. Identify the parts of wheat berry. describe: bran, germ, and endosperm. describe the relationships of these parts
- d. Define flour specifications and compositions. state the constituents of wheat flour: moisture, starch, protein, fat, minerals, enzymes, fiber, and ash.
- e. Describe the proper storage conditions for flour(s). list temperature, relative humidity (perishable ingredient):
 - Temperature on flour
 - Effect on performance
 - Moisture of flour
 - Effect on performance periods of flours.
- 2. Demonstrate a basic working knowledge of types of **fat.** Potential Elements of the Performance:
 - a. List and identify the different types of fat:
 - All purpose shortening, high ratio (emulsified), margarine, lard, butter, oil, blended, animal shortening, vegetable shortening.
 - b. State the basic components of each fat.
 - c. State the chemical and physical reactions of each fat.
 - d. State the function of fat in baking.

3. Demonstrate a basic understanding of the different types of **sugar** commodities.

Potential Elements of the Performance:

- List and identify different raw sugars
- State their places of origin
- List and identify different types of refined sugar
- Describe the different types of refined sugar
- State the use of each
- List the uses of honey, syrup, molasses, and glucose.
- State the types of each
- State the uses of each
- State the function of sugar and sweetening agents in baking.
- 4. Demonstrate a basic working knowledge of the use of **eggs** in the baking.

Potential Elements of the Performance:

- a. List the uses of eggs
 - Identify the different forms of eggs: fresh, whole, dried, and frozen (whole, separated), liquid.
- b. Describe the handling and storage of eggs
 - Describe the safe, sanitary handling of eggs.
 - State the correct temperature and optimum conditions for storage of eggs.
- 5. Demonstrate a basic working knowledge of the uses of **dairy** products in baking

Potential Elements of the Performance:

- a) List the uses of cream.
 - Identify the different kinds of cream: 35-40%, 18%, and 10%.
 - State the physical properties of each cream.
- b) List the uses of milk.
 - Identify the different kinds of milk: homogenized, fortified, skimmed, buttermilk
 - State the physical properties of each
- c) List the uses of cream and milk by-products.
 - Identify cream and milk by-products: skimmed milk powder, whey powder, baker's cheese.

State the recipe use of each.

- 6. Demonstrate a basic working knowledge of **salt** in baking. Potential Elements of the Performance:
 - a. State the uses of sodium chloride (common salt).
 - State the sources of sodium chloride: mine (mineral), sea.
 - Identify different compositions of bother processed and purified salt.
 - b. State the function of salt in baking.
- 7. Demonstrate a basic working knowledge of **leavening agents**. Potential Elements of the Performance:
 - a. State the uses of leavening agents in baking: baking powder, baking soda, ammonium compound
 - State the original source of each
 - State the use of each in baking
 - State the effect of using each
 - State the storage of chemical leaveners.
 - b. State the use of air as a leavening agent
 - Define creaming/foaming
 - c. State the use of steam as a leavening agent
 - Define lamination puff pastry
 - Define steam popovers, choux pastry
 - d. Describe yeast
 - State the micro-organism group to which yeasts belongs
 - State the basic fundamentals of growing yeast: living organisms, reproduction, budding, nutrients, environment
 - Describe the different types of cultured and wild yeast (including manufactured types)
 - e. State the theory and use of fermentation
 - Define fermentation
 - Describe the process of chemical and physical change
 - State the effects of temperature of fermentation: heat, extreme cold
 - State the recommended shelf life for each product
 - Describe the use of fermentation in bread making
 - State the effects and changes of flavour and taste
- 8. <u>Demonstrate a basic working knowledge of **chocolate** and **flavourings**.</u>

Potential Elements of the Performance:

- Explain how chocolate is produced
- Explain the functions of chocolate products
- Identify the basic production of chocolate coatings and chocolate products
 - ✓ Explain the different tempering methods of couverture

- ✓ Describe storage requirements
- Identify natural, imitation, and artificial flavours
 - ✓ Explain the method of obtaining essential oils and emulsions.

III. TOPICS:

- 1. Flour production and application
- 2. Fats
- 3. Sugar commodities
- 4. Eggs in baking
- 5. Diary products
- 6. Salt
- 7. Leavening agents
- 8. Chocolate

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Wayne Gisslen, Professional Cooking, 8th Edition

V. EVALUATION PROCESS/GRADING SYSTEM:

Students will be graded as follows:

Theory test # 1	25%
Theory test # 2	25%
Final Assessment	<u>50%</u>
Total:	100%

The following semester grades will be assigned to students in postsecondary courses:

		Grade Point
<u>Grade</u>	<u>Definition</u>	<u>Equivalent</u>
A+	90 - 100%	4.00
Α	80 - 89%	4.00
В	70 - 79%	3.00
С	60 - 69%	2.00
D	50 - 59 %	1.00
F (Fail)	49% or below	0.00
CR (Credit)	Credit for diploma requirements has been	
	awarded.	
S	Satisfactory achievement in field	

	placement or non-graded subject areas.
U	Unsatisfactory achievement in field
	placement or non-graded subject areas.
Χ	A temporary grade limited to situations
	with extenuating circumstances giving a
	student additional time to complete the
	requirements for a course.
NR	Grade not reported to Registrar's office.
W	Student has withdrawn from the course
	without academic penalty

VI. SPECIAL NOTES:

Dress Code:

All students are required to wear their uniforms while in the Hospitality and Tourism Institute, both in and out of the classroom. (Without proper uniform, classroom access will be denied)

Attendance:

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.

Addendum:

Further modifications may be required as needed as the semester progresses based on individual student(s) abilities and must be discussed with and agreed upon by the instructor.

CICE Modifications:

Preparation and Participation

- A Learning Specialist will attend class with the student(s) to assist with inclusion in the class and to take notes.
- 2. Students will receive support in and outside of the classroom (i.e. tutoring, assistance with homework and assignments, preparation for exams, tests and quizzes.)
- 3. Study notes will be geared to test content and style which will match with modified learning outcomes.
- 4. Although the Learning Specialist may not attend all classes with the student(s), support will always be available. When the Learning Specialist does attend classes he/she will remain as inconspicuous as possible.

A. Tests may be modified in the following ways:

- 1. Tests, which require essay answers, may be modified to short answers.
- 2. Short answer questions may be changed to multiple choice or the question may be simplified so the answer will reflect a basic understanding.
- 3. Tests, which use fill in the blank format, may be modified to include a few choices for each question, or a list of choices for all questions. This will allow the student to match or use visual clues.
- 4. Tests in the T/F or multiple choice format may be modified by rewording or clarifying statements into layman's or simplified terms. Multiple choice questions may have a reduced number of choices.

B. Tests will be written in CICE office with assistance from a Learning Specialist.

The Learning Specialist may:

- 1. Read the test question to the student.
- 2. Paraphrase the test question without revealing any key words or definitions.
- 3. Transcribe the student's verbal answer.
- 4. Test length may be reduced and time allowed to complete test may be increased.

C. Assignments may be modified in the following ways:

- Assignments may be modified by reducing the amount of information required while maintaining general concepts.
- 2. Some assignments may be eliminated depending on the number of assignments required in the particular course.

The Learning Specialist may:

- 1. Use a question/answer format instead of essay/research format
- 2. Propose a reduction in the number of references required for an assignment
- 3. Assist with groups to ensure that student comprehends his/her role within the group
- 4. Require an extension on due dates due to the fact that some students may require additional time to process information
- 5. Formally summarize articles and assigned readings to isolate main points for the student
- 6. Use questioning techniques and paraphrasing to assist in student comprehension of an assignment

D. Evaluation:

Is reflective of modified learning outcomes.