SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY						
SAULT STE. MARIE, ONTARIO						
Sault College						
COURSE OUTLINE						
COURSE TITLE:	TECHNIQUES OF BAKING and BAKE THEORY & DEMO					
CODE NO. :	FDS 137		SEMESTER:	ONE		
PROGRAM:	CHEF TRAII	NING AND APPREI	NTICES			
AUTHOR:	PETER GRA	F, HRM Dip., C.C.	C.			
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HOURS/WEEK:	16 WEEKS					
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PART I: TECHNIQUES OF BAKING

I. COURSE DESCRIPTION:

To provide the student with an understanding of the techniques, requirements and skills for the baking industry, hotels, restaurants, fast foods, and bakeries as set out by the Ministry of Skills Development of Ontario for The Trade of Cook. Familiarity with techniques and products will assist in your future purchasing decisions.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. Demonstrate the ability to select, prepare, and bake pre-mix, frozen and bake off products.

- a) Demonstrate, in the lab, the ability to:
 - Use the correct proportion of the ingredients as per recipe
 - Select the proper tools used
 - Roll dough for pie bottoms
 - Roll dough in the fluted pie shells
 - Use dusting flour properly
 - Demonstrate the correct consistency of a pre-dough
- b) Demonstrate an understanding of how to make a refrigerated dough
 - Prepare dough for later use
 - Roll dough to rectangular, square and triangular shape
 - Line baking sheets
 - Roll dough to even thickness without sticking
- c) Technically demonstrate how to prepare a variety of fruit pies/tarts:
 - Select proper tools used
 - Prepare pie dough
 - Line and fill pie shells

- Use lattice design cutter
- Bake pies to proper temperature and degree of doneness
- 2. Demonstrate technically the ability to make a cookie batter and cookie dough for piping and baking

Potential Elements of the Performance:

- a) Choice of proper piping bags and tubs for the intended uses
- b) Pipe single and double rosettes
- c) Proper piping skills, hearts, crescents, using required tubs
- d) Technical piping of lady fingers, spirals, and straight lines using proper pressure to obtain uniformity of desired shapes
- 3. Demonstrate technically the ability to properly prepare quick breads and muffins

Potential Elements of the Performance:

- a) Choice of proper tools and equipment for the production of quick breads
- b) Select proper ingredients such as milk, cream, eggs and flavouring materials
- c) Prepare mixtures according to recipes
- d) Produce sugar into caramel using proper temperature and technique
- e) Proper handling of gelatin
- f) Bake custards in water bath to proper temperature and consistency
- g) Fill and decorate Bavarian creams using classical and contemporary concepts and styles
- 4. Demonstrate technically the ability to prepare icings, mask cakes, and decorate using paper cones

- a) Proper selection of tools and know the correct method to make proper paper cones
- b) Prepare a basic cake icing using correct methods
- c) Mask a cake evenly
- d) Handle palette knife correctly during icing of cakes
- e) Fill, close and hold paper cones properly
- f) Put simple decorations on cakes using proper tools and equipment
- g) Space writings in centre of cake using proper techniques

5. Demonstrate technically the ability to properly prepare yeast dough products: lean dough, rich dough, and rolled-in yeast dough

Potential Elements of the Performance:

- a) Proper selection of tools and equipment
- b) Properly prepare dough by hand
- c) Technically bulk round dough with right, left and both hands
- d) Divide dough by hand and bun divider
- e) Round individual dough pieces by hand and round machine
- f) Shape a variety of soft and dinner rolls
- g) Use the right amount of dusting flour
- h) Handle yeast dough properly
- i) Proof rolls correctly by time and temperature
- j) Bake rolls to appropriate degree of doneness and appearance
- k) Properly cool and store finished product
- 6. Demonstrate technically the ability to prepare choux paste and bake products as eclairs and cream puffs

Potential Elements of the Performance:

- a) Proper selection of tools and equipment
- b) Prepare choux paste to desired consistency
- c) Pipe choux paste to proper shape of finished product
- d) Select correct oven temperature
- e) Bake choux paste to proper crispness and degree of doneness
- f) Glaze, fill and assemble choux paste products as required for pastry presentation, platter presentation and plated presentation
- 7. Demonstrate technically the ability to prepare a variety of pastries such as Swiss rolls and other sponge-based pastries

- a) Describe different types of sponge cakes
- b) Select the proper kind of sponge for the desired finished product
- c) Prepare the sponge cake batter correctly
- d) Bake sponge at the proper oven temperature
- e) Fill and roll jelly rolls
- f) Cut and store Swiss rolls and other pastries the proper way

- g) Make and decorate Swiss rolls in various ways
- h) Decorate sponge goods as required for classical presentation
- 8. Demonstrate technically the ability to prepare a light and moist high ratio cake filling and decoration

Potential elements of performance:

- a) Proper selection of tools and equipment
- b) Proper selection of correct ingredients
- c) Mixing of the cake properly
- d) Bake cake using correct temperature and timing
- e) Prepare cake icing correctly
- f) Mask and decorate cake illustrating proper technical skills

III. TOPICS:

- 1. Pie dough
- 2. Cookie batters for piping
- 3. Quick breads and muffins
- 4. Cream desserts
- 5. Icings
- 6. Yeast dough
- 7. Choux paste products
- 8. Pastries
- 9. Cake preparation

IV. REQUIRED RESOURCES/TEXTS/MATERIALS: Chef Training Class, Pink Baking Book. Wayne Gisslen, Professional Cooking 4th Edition

V. EVALUATION PROCESS/GRADING SYSTEM:

The lab assignment includes the following:

- 1. Gathering of utensils and raw materials
- 2. Pre-preparation of the assigned items
- 3. Preparation (cooking, baking) of the items
- 4. Proper storage of the ready items including packaging, refrigeration, and freezing
- 5. Cleaning of utensils, equipment, work areas, and cooking surfaces. No mark will be assigned until work areas are clean
- 6. Putting all utensils and small wares into their allocated places
- 7. Handing in costing sheets when requested
- 8. No student is to leave the lab area until the end of the period

Using the above student evaluation, students will be graded as follows:

15 labs @ 15 marks each = 225 possible marks

- A+ 203-225 Outstanding achievement
- A 180-202 Excellent achievement
- B 158-179 Above average achievement
- C 135-157 Average achievement
- R 156/less Repeat

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

NOTE THAT THE FINAL GRADE WILL CONSIST OF LABS: 60% THEORY:40% TOTAL: 100%

		Grade Point
<u>Grade</u>	<u>Definition</u>	<u>Equivalent</u>
A+	90 - 100%	4.00
А	80 - 89%	3.75
В	70 - 79%	3.00
С	60 - 69%	2.00
R (Repeat)	59% 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.	
Х	A temporary grade. This is used in	

limited situations with extenuating circumstances giving a student additional time to complete the requirements for a course (see *Policies & Procedures Manual – Deferred Grades and Make-up*). Grade not reported to Registrar's office. This is used to facilitate transcript preparation when, for extenuating circumstances, it has not been possible for the faculty member to report grades.

VI. SPECIAL NOTES:

NR

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) Special Needs:

If you are a student with special needs (e.g. physical limitations, visual

impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your instructor and/or the Special Needs office. Visit Room E1204 or call Extension 493, 717, or 491 so that support services can be arranged for you.

Retention of course outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Plagiarism:

Students should refer to the definition of "academic dishonesty" in *Student Rights and Responsibilities.* Students who engage in "academic dishonesty" will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course outline amendments:

The Professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

VIII. DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.

PART II: BAKE THEORY AND DEMO

I. COURSE DESCRIPTION:

To provide the student with an understanding of the requirements and skills for the baking industry, hotel, restaurant, and bakeries. Familiarity with techniques and products will help assist in your future purchasing decisions.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. Demonstrate an understanding of the different types of flours and their uses.

Potential Elements of the Performance:

- a) Identify the botanical classification of wheat and rye.
- b) List the plants used in the production of flour.
- c) Identify the classes and varieties of wheat and rye flour.
- d) Identify and describe the parts of wheat berry
 - Bran
 - Germ
 - Endosperm
- e) Define flour specifications and compositions.
- f) State the constituents of wheat flour including: moisture, starch, protein, fat, minerals, enzymes, fibre and ash.
- g) State when to use all flours: hard wheat flour, high protein flour, low protein flour, whole wheat flour, rye flour, light rye flour, medium rye flour, dark rye flour, soft flour, regular cake flour, pastry flour, corn flour (white and yellow), cornstarch, high ratio cake flour.
- h) List temperature and relative humidity on perishable ingredients including: temperature of flour, effect on the performance on flour, moisture of flour.
- i) State the potential shelf life of flour under proper storage conditions.

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2. Demonstrate an understanding of the different types of shortenings and their uses.

Potential Elements of the Performance:

- a) List and identify the different types of shorting:
- All purpose shorting
- High ratio (emulsified)
- Margarine
- Lard
- Butter
- Oil
- Blended
- Animal
- Vegetable
- b) Describe the basic components of each shorting.
- c) State the basic chemical and physical reactions of each shortening.
- 3. Explain and understand the different types of sugar commodities.

Potential Elements of the Performance:

- a) Identify and list the different types of refined sugars.
- b) Describe the different types and grades of refined sugars.
- c) State the uses of each type of refined sugars.
- d) List the types and uses of: honey, syrup, molasses and glucose.
- 4. Demonstrate an understanding of the uses of eggs in the baking process.

- a) List and identify the different uses and forms of eggs as they pertain to baking:
- Fresh
- Whole
- Dried
- Frozen (whole or separated)
- b) Describe and state the correct handling, sanitary safety,

temperature and optimum storing conditions of eggs.

5. Demonstrate an understanding of the uses of all dairy products in relationship to baking.

Potential Elements of the Performance:

- a) List the uses of cream as it pertains to baking.
- b) Identify the different types of creams: 35%, 18%, and 10%.
- c) State the physical properties of each cream.
- d) List the uses of milk as it pertains to baking.
- e) Identify the different types of milk: homogenized, 1%, 2%, skimmed, fortified, buttermilk,
- f) State the physical properties of each milk product.
- g) Explain and recognize the different forms of milk: evaporated, condensed, and dried.
- h) List the different uses of milk and cream by-products.
- i) Describe and identify milk and cream by-products: skimmed milk powder, whey powder, and baker's cheese.
- j) State recipe uses for all dairy products.
- 6. Demonstrate an understanding of leavening agents in relationship to baking.

- a) Identify and explain the uses of the different types of leavening agents in baking: baking powder, baking soda, and ammonium compound.
- b) State the original source of each agent.
- c) State the usage effect of each agent in baking.
- d) State the botanical classification of yeast.
- e) State the micro-organism group to which yeast belongs.
- f) State the basic fundamentals of growing yeast:
 - Living organisms
 - Reproduction
 - Budding
 - Nutrients
 - Environment
- g) Describe the different types of cultured and wild yeast (including

manufactured types)

- h) Describe and explain the theory of fermentation:
 - Define the meaning of the word "fermentation"
 - Describe the process of chemical and physical change
 - State the effects of temperature on 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
- 7. Demonstrate an understanding of the different types of chocolate and flavourings

Potential Elements of Performance:

- a) Identify the botanical classification of cocoa beans
- b) Explain the function of chocolate products
- c) Identify the basic production of chocolate coating and chocolate products
- d) Explain the different tempering method of couverture
- e) Identify natural, imitation, and artificial flavours
- f) Explain the method of obtaining essential oils and emulsions

III. TOPICS:

- 1. Flour production and application
- 2. Types of shortenings
- 3. Sugar commodities
- 4. Eggs in baking
- 5. Diary products
- 6. Leavening agents
- 7. Chocolate and flavourings

IV. REQUIRED RESOURCES/TEXTS/MATERIALS: Wayne Gisslen Professional Cooking 4th Edition

V. EVALUATION PROCESS/GRADING SYSTEM:

Student's final grade will consist of the following components:

Three tests of equal value will be given. Approximate dates: October November December

NOTE THAT THE FINAL GRADE WILL CONSIST OF LABS: 60% THEORY:40% TOTAL: 100%

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

Grade	Definition	Grade Point Equivalent
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	limited situations with extenuating	
	circumstances giving a student additional	
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<include any other special notes appropriate to your course>

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