



SYLLABUS

PALAZZI FLORENCE ASSOCIATION FOR INTERNATIONAL EDUCATION
FLORENCE UNIVERSITY OF THE ARTS
APICIUS - INTERNATIONAL SCHOOL OF HOSPITALITY

SCHOOL OF FOOD AND WINE STUDIES
DEPARTMENT OF BAKING AND PASTRY
COURSE TITLE: CHOCOLATE ARTISTRY
COURSE CODE: FWBPCA450

3 Semester Credits

1. DESCRIPTION

This course will give students knowledge of the fundamentals of chocolate starting from an understanding of the ingredient, its history and evolution throughout centuries. The course will cover the chocolate production process from harvest to the finished product, and will focus on the composition of chocolate in all its different types: dark, milk and white. Students will understand the differences between different cocoa percentage in chocolate and their suitable applications in pastry. Emphasis will be placed on basic chocolate tempering techniques, on chocolate bar production, and on the application of special molds for simple pralines and small centerpiece production. The course will also focus on the use of chocolate to create different ganaches, including matching them with the suitable type of pralines or desserts. Students will learn to use traditional and contemporary production methods when creating confections both by hand and with special equipment.

2. OBJECTIVES

By the end of the course students will be able to:

Identify and properly use the basic tools and equipment used in a chocolate lab

Explain the history of cocoa

Know and identify the features and taste of chocolate

Recognize the functions of various ingredients used in the production of chocolate items and to produce, preserve and use a variety of chocolate-based products.

Special attention will be placed on ganache production with a deep analysis of all different production techniques and suitable applications. Students will practice pralines and molded chocolate shapes production to obtain the basic knowledge needed for the future steps of chocolate artistry.

The course will focus also on chocolate Easter eggs and techniques related to production

3. REQUIREMENTS

Baking Techniques I or equivalent.

4. METHOD

This course consists of lectures, class discussions, and projects. Mediums for instruction used may include but are not limited to, interactive and hands-on activities which challenge thought processes, academic texts and studies, videos, slides, guided problem solving, and experiential and/or field learning activities where applicable.

5. TEXT BOOK – FURTHER READINGS – RESOURCES

TEXT BOOK

The Art of Chocolatier - from classic confection to sensational showpieces - Edwald Notter - John Wiley and Sons

The Textbooks are pre-ordered and available at: Paperback Exchange in Via delle Oche 4r or laFeltrinelli Via dei Cerretani 40R. Textbooks may also be available for purchase online or in e-book format.

The text book is mandatory for successful completion of the course.

Where applicable, additional materials, handouts and/or notes will be provided by the instructor.

FURTHER READINGS

(Books listed below are available in the FUA library)

On Baking: A textbook of baking and pastry fundamentals - 3th edition - Pearson

Labensky, Martel, Van Damme

On Food and Cooking - Harold McGee

How Baking Works: Exploring the Fundamentals of Baking Science, Paula I. Figoni

The Professional Pastry Chef - Frinberg B - Wiley

Professional Baking - Gisslen W. 3rd Edition

Bruni Benson A. - Solo Dolci: The Italian Dessert Cookbook

LIBRARIES IN FLORENCE

The FUA library is located in Corso Tintori 21. Please consult the posted schedules for official opening times. Also note that the library is for consultation only and it is not possible to borrow materials. The library is equipped with a scanner and internet access so that you may save or email a digital copy of the pages needed.

Students may also utilize additional libraries and research centers within the local community:

Biblioteca Palagio di Parte Guelfa

Located in Piazzetta di Parte Guelfa between Piazza della Repubblica and Ponte Vecchio.

Please consult the library website for hours of operation:

http://www.biblioteche.comune.fi.it/biblioteca_palagio_di_parte_guelfa/

Biblioteca delle Oblate

Located in via dell'Oriuolo 26. Please consult the library website for hours of operation:

www.bibliotecadelleoblate.it

The Harold Acton Library at the British Institute of Florence

Located in Lungarno Guicciardini 9. Please consult the library website for hours of operation.

This library requires a fee-based student membership. For information: www.britishinstitute.it/en

6. FIELD LEARNING

Please consult your Official Registration for any mandatory field learning dates. Field Learning Activities cited in Official Registrations are an integral part of the course and also include an assignment that counts towards your final grade, details will be provided on the first day of class.

7. COURSE MATERIALS

Professional Cooking courses

1. All students are strictly required to attend class wearing a clean uniform: the jacket provided by the school, black pants, apron (color depending on the CA level), safety footwear, a white Chef's hat, and a set of knives. Students with long hair should tie hair back before wearing the hat. Students are not allowed to wear rings, earrings or any other visible piercings, bracelets, watches, and nail polish during lab hours. Students who are not dressed properly will not be allowed in class.

2. All students must attend class fully prepared and on time. Late students will not be accepted.
3. Carefully wash hands at the beginning of each class, before food is handled.
4. During professional cooking classes only small food tastings are allowed as the main purpose of these courses is to develop technical skills. Students are not allowed to take food out of the kitchen.
5. Students are also required to participate in a polite and responsible way. Students are not allowed to sit on the working stations. Students who disturb lessons or are disrespectful to the instructor or the other students will be asked to leave the class. Serious infractions will be evaluated by the Academic Office.
6. Cooking classes will include various tasks which all students must carry out. Classes will include all different types of recipes and students are expected to actively participate in all lessons regardless of personal likes or dislikes.
7. Each student is responsible for washing all utensils used during class and keeping the working station clean and tidy, with all the utensils as listed in the station inventory. Two students at a time will tidy up the kitchen common areas during each class.
8. Students are responsible for kitchen utensils and maintenance of the equipment. The cost of a) any missing utensil b) damages due to student carelessness will be shared by all students.
9. No visits are allowed in class at any time.
10. The use of cellular phones is not allowed within the school building.

Should students wish to store materials or equipment, lockers are available with a deposit (given back after returning the key).

8. COURSE FEES

Course fees cover course-related field learning activities, visits, and support the instructor's teaching methodologies. Book costs are not included in the course fee. The exact amount will be communicated by the instructor on the first day of class.

9. EVALUATION – GRADING SYSTEM

- 10% Attendance
- 30% Class Participation and Assignments
- 20% Midterm Exam, Field Learning project (if applicable), Special/Research Project (if applicable), Practical Performance (if applicable)
- 20% Final Exam
- 20% Paper/Project

A = 93-100 %, A- = 90-92%, B+= 87-89%, B = 83-86%, B-=80-82%, C+ = 77-79%, C=73-76%, C-=70-72%, D = 60-69%, F= 0-59%, W = Official Withdrawal, W/F = Failure to withdraw by the designated date.

10. ATTENDANCE – PARTICIPATION

Academic integrity and mutual respect between instructor and student are central to the FUA academic policy and reflected in the attendance regulations. Student presence is mandatory and counts toward the final grade.

On the **second absence** the attendance and participation grade will be impacted. Please note that missing certain field learning activities may count for more than one absence.

On the **third absence** the instructor may lower the final grade by one letter grade. (Example: Final grade average of 93% or A will become a B).

The fourth absence constitutes automatic failure of the course. Students with excessive absences will be asked to withdraw with a W (if before the deadline) or leave the course with a WF.

Late Arrival and Early Departure

Arriving late or departing early from class is not acceptable. Two late arrivals or early departures or a combination will result in an unexcused absence. Travel is not an exceptional circumstance.

Travel (or delays due to travel) is NEVER an excuse for absence from class.

It is always the student's responsibility to know how many absences he or she has in a course. If in doubt, speak with your instructor!

Participation: Satisfactory participation will be the result of contributing to class discussions by putting forth insightful and constructive questions, comments and observations. Overall effort, cooperation during group work and in-class activities, responsible behavior, and completion of assignments will be assessed. All of the above criteria also apply to Field Learning and site visits if applicable.

11. EXAMS – PAPERS – PROJECTS

This course includes the evaluation of practical performances, that refers to all hands-on activities held during class and accounts for the 20% of the course grade.

The final **Paper/Project** accounts for 20% of the course grade.

- Format: topic, length, guidelines, and due date will be provided on the course website
- Material for research will be available in the FUA Library in Corso Tintori 21.

The Final exam accounts for 20% of the final course grade.

For exam time and date consult the course website.

The time and date of the exam cannot be changed for any reason.

Format: the exam is divided into two sections:

- Part I: short-answer and/or multiple choice questions
- Part II: hands-on performance

The Final Exam is cumulative

No pencil allowed. Blue and black pen are the only acceptable.

12. LESSONS

Lesson 1	
Topic	Introduction to the course History of cocoa Structure of the cocoa fruit - Fermentation - Drying - Selection of pods Chocolate production process
Lab	Viewing of a documentary on chocolate
Objectives	Understand the composition of cocoa fruit - Understand the effect of fermentation on cocoa flavor - Understand the importance of chocolate production process and its effects on chocolate final flavor
Assignment	Read text book pp. 6-10

Lesson 2	
Topic	The varieties of cocoa and chocolate Criollo, Forastero and Trinitario - Monovarietal, Blend and Pure Origin Different cocoa mass and cocoa butter percentage: white, milk and dark chocolate Extraction of cocoa butter and cocoa mass - Suitable uses of different types of chocolate
Lab	Experience a real cocoa cabosse - Chocolate tasting
Objectives	Learn the balancing formulas to produce chocolate with different cocoa mass percentage - Understand how cocoa butter is extracted - Understand how cocoa butter content modifies the density of chocolate - Learn the suitable applications of different types of chocolate
Assignment	Read text book pp 10/25

Lesson 3	
Topic	Chocolate tempering The purpose of chocolate tempering - Crystallization of cocoa butter - How chocolate tempering influences the optimal result of final product Tempering methods: tabling, microwave, seeding, direct, powdered cocoa butter - Focus on the first three - Suitable chocolate for bar production
Lab	Tabling methods: focus on tabling - Chocolate bars
Objectives	Learn the purposes of tempering - Understand the crystallization of cocoa butter - Learn the different tempering methods and practice tabling - Understand how tabling tempering method works - Learn which chocolate is suitable for bars production – Gain confidence with chocolate bar production
Assignment	Read text book pp 40/57

Lesson 4	
Topic	Chocolate shells for pralines The importance of chocolate density: cocoa mass and cocoa butter content Application of chocolate for molding - Chocolate modeling in special molds Molding techniques
Lab	Application of chocolate tempering for praline shell production - Praline shells
Objectives	Learn which types of chocolate are suitable for shells production - Understand how cocoa mass content modifies the final flavor - Understand how chocolate density affects the final result - Gain confidence with the necessary steps for the production of shells Understand how the shell influences the final result in pralines flavor perception
Assignment	Read text book pp. 170-193

Lesson 5	
Topic	Ganache for pralines 1 Ganache definition and classifications - Ganache shelf-life: free water percentage - Chocolate content in the ganache - Application of flavorings to ganache - Types of ganache bases: syrup, water and fat based - Different types of ganache for different types of pralines - Make-up methods: slabbed, truffles, piped, molded Focus on molded pralines

Lab	Molded pralines Syrup-based ganache: Apricot praline - Heavy Cream-based ganache: Coffee praline – Water-based ganache: Mint praline
Objectives	Understand ganache production process - Understand how to extend ganache shelf-life - Understand the suitable types of ganache for different types of pralines Understand what type of chocolate is suitable for the different production methods Learn how to balance the different ganache bases (heavy cream, syrup and water)
Assignment	Read text book pp 108/115-170/171-176/177-186/187

Lesson 6	
Topic	Ganache for pralines 2 Ganache definition and classification - Ganache shelf-life: free water percentage - Chocolate content in the ganache - Application of flavorings to ganache - Types of ganache bases: syrup, water and fat-based ganache - Different types of ganache for different types of pralines – Production methods: slabbed, truffles, piped, molded Focus on truffle and slabbed praline - History of chocolate truffles Suitable chocolate for truffles and slabbed pralines - Characteristics and application of different chocolates
Lab	Slabbed pralines and Truffles Syrup based ganache: Lemon praline - Heavy cream-based ganache: Caramel truffle – Water-based ganache: Earl Grey Tea praline
Objectives	Understand the characteristics of ganache for truffles and slabbed pralines production Learn truffle production method - Understand how to balance ganache and flavorings
Assignment	Read text book pp 116/123-181-193/194-202/203

Lesson 7	
	Midterm Exam

Lesson 8	
	Academic Break

Lesson 9	
Topic	Ganache for pralines 3 Ganache definition and classification - Ganache shelf-life: free water percentage - Chocolate content in the ganache - Application of flavorings to ganache - Types of ganache bases: syrup, water and fat-based ganache - Different types of ganache for different types of pralines - Production methods: slabbed, truffles, piped, molded Focus on Piped pralines Alternative fats: nuts in the ganache formulas - Tools for piped praline production

Lab	Piped pralines Syrup based ganache: Pineapple praline Heavy cream-based ganache: Hazelnut praline
Objectives	Understand how to balance ganache formulas for piped pralines - Understand how to balance water content in the ganache - Understand how to apply alternative fat in the ganache - Gain confidence with piping bag and the other suitable tools
Assignment	Read text book pp146-195/196

Lesson 10	
Topic	Spreadable chocolate creams Definition of spreadable chocolate creams - Types of fat and fat balancing Balancing formulas for spreadable creams - Application of ingredients in spreadable creams: nuts, cocoa, liqueurs, cookies - Free water content and shelf-life - Preservative ingredients: alcohol, sugar and fat - History of Nutella
Lab	Spreadable creams with: Langhe hazelnuts - white chocolate coffee and cookies - cocoa - chocolate and rum
Objectives	Learn the history of spreadable creams: focus on Nutella - Understand how to balance ingredients in the recipe - Understand flavors application to spreadable creams Understand how fat content modifies perception of flavors and mouthfeel Understand how to balance free water in the recipe - Understand how the preservative ingredients modify texture, flavor and shelf life
Assignment	Teacher material available on myfua

Lesson 11	
Topic	Chocolate modeling 1 - Cut-out chocolate shapes Choosing the theme - First sketches: drawing the shape - Chocolate application: suitable types of chocolate with different fat content - Color and texture: application techniques
Lab	Creation of a small centerpiece - Part 1 - Double chocolate layer and bent shapes
Objectives	Understand how to apply a theme to the creation of chocolate cut-out shapes - Learn cut-out technique - Understand how to balance color in chocolate - Understand the importance of chocolate tempering for color application - Understand how to draw the shape as a first fundamental step for a successful creation
Assignment	Read text book pp 248/256

Lesson 12	
Topic	Chocolate modeling 2 - Molded chocolate shapes Choosing the theme - First sketches: drawing the shape - Chocolate: characteristics and density for chocolate modeling - Gelatin mold preparation: the use of glucose Color: cocoa butter application
Lab	Creation of a small centerpiece - Part 2 - (theme given by instructor)

Objectives	Understand how chose the theme (seasonality) Understand how chose color and apply it to the chocolate Understand how make a gelatin mold Understand how use the gelatin mold Understand how finish the chocolate sculpture
Assignment	read text book pp 242/247

Lesson 13	
Topic	Chocolate modeling 3 - Assembly of the centerpiece Preservation: chocolate humidity content and storage temperature depending on centerpiece <i>destination</i> - Assembling techniques - Cocoa butter application for finishing
Lab	Assembly and presentation of the centerpiece
Objectives	Understand how to store the chocolate works - Understand how humidity, light, smell and temperature modify the flavor - Understand how to assemble chocolate shapes Understand how to apply cocoa butter for preservation
Assignment	read text book pp 242/247 - 248/256

Lesson 14	
Topic	Easter Eggs Application of the techniques for molded chocolate shapes to Easter egg production Suitable chocolate for Easter eggs and molded shape production - Theme choice - Collection planning - Style definition
Lab	Easter Eggs - Instructor collection
Objectives	Understand the theme choice - Understand how to create a collection Learn the suitable chocolate to make Easter eggs - Understand the importance of the type of chocolate for the destination of the creation Understand how apply cocoa butter color on the Easter eggs
Assignment	read text book pp 242/247

Lesson 15	
	Final Exam