

Lesson Plan:

<https://www.youtube.com/playlist?list=PLvQTu7cd3iSvMyBcax8HtnyfdWKZlcNJ5>

- A) **CULINARY FUNDAMENTALS:** Knife skills, Food safety and sanitation, Culinary math, Product identification, Palate development, Ingredient pairing.
Topics of study include tasting, kitchen equipment, knife skills, classical vegetable cuts, stock production, thickening agents, soup preparation, grand sauces, timing and multi-tasking, station organization, palate development, culinary terms, and food costing. The course also introduces the student to fundamental concepts and techniques of basic protein, starch, and vegetable cookery. Emphasis is placed upon the study of ingredients and an introduction to the concepts of ratios and formulas will be given
Knife skills; Culinary terminology; Food science principles; Professionalism; Sautéing, roasting and grilling; Braising and stewing; Menu development and evaluation; Starches, proteins and vegetables
- A. **Modern and Industrial Cooking Tools, Techniques, and Ingredients.** In this course, students will study the use of industrial-scale cooking equipment and its applications in product development and food processing. Through the use of bench-top equipment, they'll conceptualize and model the steps from product ideation, development, and launch. Field trips to large-scale facilities and commissaries will help illustrate the application of equipment and the logistics of their use. Centrifuges, homogenizers, vacuum filters, freeze dryers, rotary evaporators, pasteurizers, and other specialized equipment that have moved from scientific laboratories to professional kitchens will be covered.
- B. **Advanced Culinary Skills:** Timing and plating; Seafood, meats and sauces; Café production; Alcohol service; Dining room service; Pickling, sausage-making, smoking and canning; Special events and banquets; Menu planning.
Culinary Methods: This course is designed to advance the techniques and knowledge of students in a variety of culinary areas. It builds upon the skills, techniques, and principles introduced in Culinary Foundations I & II to further the mastery of cooking methods. Topics to be included include advanced knife skills, stocks, sauces, soups, vegetables, grains, and egg cookery. Students will also study plate presentation, cost controls, and menu conversions
- B) **INTRODUCTION TO FISH, POULTRY AND MEAT:** Beef/veal identification and fabrication, Pork fabrication, Poultry fabrication, Fish and shellfish.
- o **Meat Identification, Fabrication, and Utilization.** This course will introduce the student to the subject of meats and their application in foodservice operations, building a strong foundation that supports the principles to be learned in the

cooking courses to follow. Through lectures, demonstrations, hands-on activities, and reviews, students will learn about the muscle and bone structure of beef, veal, pork, lamb, game, and poultry; fabrication methods for sub-primal and foodservice cuts; and proper tying and trussing methods. Lectures will introduce meat inspection, quality and yield grading, costing and yield testing, purchasing specifications, and basic information concerning the farm-to-table trail. Discussions will include preferred cooking methods for all meats, proper knife selection, and butchery equipment. Sanitation and safety standards will be stressed throughout.

- **Seafood Identification and Fabrication.** An overview of the principles of receiving, identifying, fabricating, and storing seafood. Identification will involve round fish, flat fish, crustaceans, and shellfish. Topics include knife skills, yield results, quality checks, product tasting, storage of various types of fish, techniques for fabricating cuts for professional kitchens, special storage equipment, commonly used and underutilized species of fish, fishing and aquaculture techniques, and how to choose sustainable species.
 - Butchery
- C) **Plant-Based Cuisine and Diet.** Plant-Based Cuisine and Diet. This unit introduces plant-based cooking and will explain the principals of plant-based dietary requirements, culinary preparations, and cooking methods, providing detailed product knowledge and professional kitchen organisation skills. Students will also gain a food safety qualification which is required for working in a professional kitchen. This unit will focus on vegetable ingredients, by introducing a range of vegetables such as flowers, bulbs, fungi and stems, tubers and sea vegetables. Students will have the opportunity to learn a variety of recipes, plating skills and culinary techniques.
- **Specialised Plant-Based Cuisines.** This unit will build on the foundation from the previous units with focus on plant-based foods and beverages, diets and cultures around the globe. Current trends and innovations in the vegetarian food industry will be assessed in a creative environment. The unit includes specialised demonstrations and guest speakers.
- D) **Grains, Pulses, Nuts & Seeds.** Essential to plant-based cuisine the innovative recipes will include a range of breads, cooking with grains and explore the culinary world of beans, peas and lentils. Students will learn to identify these products and understand a range of cooking methods for their use.
- E) **SAUCES AND SOUPS:** Grand sauces, Compound sauces, Emulsified sauces, Contemporary sauces, Consommé, Vegetable-based soups, Reductions, Roux-based soups and bisques
- F) **DRY-HEAT COOKING METHODS:** Sautéing proteins, starches and vegetables, Pan-frying proteins, starches and vegetables, Deep-frying proteins, starches and vegetables, Grilling proteins, starches and vegetables, Roasting proteins, starches and vegetables
- G) **MOIST-HEAT COOKING METHODS, VEGETABLES, GRAINS AND LEGUMES:** Braising proteins and vegetables, Stewing proteins, starches and vegetables, Shallow

poaching proteins, Steaming proteins and vegetables, Deep-poaching proteins and vegetables

- H) **BREAKFAST COOKERY, SALADS AND SANDWICHES**: Egg specialties, Griddle specialties, Cereals, Crêpes, Breakfast meats, Simple and composed salads, Dressings and vinaigrettes, Assorted sandwiches, Grains and legumes
- I) **Introduction to Gastronomy**. The second half of the class centers on the history of French and American haute cuisine, and how cuisines change in response to technological developments, global events, and shifting cultural attitudes and beliefs toward food and eating
- J) **Spanish Cuisine Basic Course Structure**: Basic Spanish Cuisine preparations: stocks, broths, sofritos..., Basic sauces: national & international, Hero ingredients: the egg & the potato, Introduction to the pulse family & its classic dishes, Mycology, How to work with & treat vegetables, Introduction to doughs, Fish: preliminary preparation, filleting & cooking methods, Basic knowledge of the world of seafood, Traditional preparation of roasts, stews & picklings, Preparation of classic tapas, Iberico Pork: characteristics & culinary applications, Introduction to poultry: preliminary preparation, cuts & cooking techniques, In-depth look at the history, techniques & secrets of Spanish rice dishes
- K) **Spanish Cuisine Intermediate Certificate**: A gastronomic tour of Spanish Regional Cuisine, Emblematic & classic Spanish regional dishes, "Sea & Mountain"-styled dishes, How to do fillings, Introduction to game, Greater development of knowledge of cooking methods & cooking points, Advanced plating techniques, Classic & Modern Interpretation of tapas: preparation & plating, In-depth look at the preparation of poultry, meats & fish, Initiation to recipe development & flavour harmony
- L) **Spanish Cuisine Superior Certificate**: Avant-garde techniques & utensils, cooking in low temperature, spherifications & varied textures, Advanced cooking techniques applied to game meats, Reinventing & deconstructing classic dishes, Developing recipes using high-quality products & rare ingredients, Introduction to pasta, Initiation to seasonal & sustainable cuisine, Development of personal creativity, Fundamentals of modern vegetarian cuisine, Modern tapas, Sous-vide cooking, Fundamentals of molecular cuisine, Decorating & plating techniques
- M) **CUISINES OF ASIA; ADVANCED COOKING, PLATING AND PRESENTATION**: this course acquaints students with the essential dishes of India, China, Japan and Thailand. Advanced Culinary Applications: Successful multitasking is one of the hallmarks of every chef. The challenges of bringing together all the components of an entrée require rigorous attention to timing and proper sequencing of tasks. This course is designed to enable students to assimilate these skills as they learn how to prepare and plate contemporary entrées.
Prepare, taste, serve, and evaluate traditional and regional dishes of Asia. Emphasis will be placed on ingredients, flavor profiles, preparations, and techniques representative of the cuisines from China, Korea, Japan, Vietnam, Thailand, and India. The course develops an expanded understanding and appreciation of why and how people from diverse world cultures with varying backgrounds approach food and beverages differently

- N) **Cuisines and Cultures of the Americas**. Prepare, taste, serve, and evaluate traditional regional dishes of the Americas. Emphasis will be placed on ingredients, flavor profiles, preparations, and techniques for cuisines representative of the United States, Mexico, South America, and the Caribbean. The course develops an expanded understanding and appreciation of why and how people from diverse world cultures with varying backgrounds approach food and beverages differently.
- O) **Global Traditions: Culture and Cuisine**: This class is designed to develop a sense of global food knowledge from around the world, including regions of Asia, Africa, and the Middle East. Students will study the food products of these regions, the taste and flavors developed within those regions as well as key aspects of food styles, cooking techniques, menu development, and food distribution within the regions. The study of global cuisine allows students to understand the quality of food products within those regions, and the importance of food sourcing from local, regional, and national gardening systems. The support of regional food sources and the necessity for understanding policies and procedures related to global cuisine are part of becoming a globally-responsible food service professional of the 21st century.
- P) **FRENCH REGIONAL COOKING; ITALIAN REGIONAL COOKING**: In this course students become familiar with characteristic ingredients, methods and dishes from Provence, Burgundy, Normandy and Alsace. (Italian) Piedmont, Tuscany, Abruzzo and 17 other regions comprise what we think of as Italian food
- Q) **The Intermediate Cuisine (Intermediate Certificate)** programme introduces you to classic French regional dishes through which you will apply the techniques introduced in the Basic level programme. Through practice and repetition, you begin to perform tasks more easily and instinctively. Intermediate Cuisine emphasises the importance of mise en place: understanding, organisation and production. Demonstrations highlight various kinds of presentations from platter to plate., Product origins and influences on French regional cuisine, Perfecting professional kitchen skills, More dvanced technical cuts and presentationFood presentation techniques for platters and plates, Further developments in personal creativity and discipline, Introduction to Charcuterie, Prepare and cook simple hot and cold desserts
- R) **Superior Cuisine Certificate**. The Superior Cuisine (Superior Certificate) programme culminates in Le Diplôme de Cuisine Le Cordon Bleu (Cuisine Diploma). You will learn about the current evolution of French cuisine. Full menus, demonstrated by the chefs, are inspired by trends from today's top kitchens. Some recipes are original; others are contemporary interpretations of the classics. The ingredients are richer and more refined: exposing the students to working with such ingredients as foie gras, truffles and lobster. Now well-versed in French culinary skills, you are encouraged in Superior Cuisine to be more creative in both taste and presentation. Precision and efficiency in the kitchen, Mastery of intricate techniques and methods, Recipe production with high quality and rare produce, Mastery of classic "haute cuisine", Adaptation of menus based on the season and product availability, Mastery of presentation and decoration
- S) **Cuisines and Cultures of the Mediterranean**. Olives, Wheat, Garlic, and Wine. California cuisine is known for its Mediterranean influence, so it makes perfect sense to dive deep into the ingredients and cooking methods of Spain, France, Italy, Morocco,

Tunisia, Greece, and Egypt. In Cuisines and Cultures of the Mediterranean, you'll discover how each country's food is shaped by geography, history, and culture. Prepare, taste, serve, and evaluate traditional, regional dishes of Europe and the Mediterranean. Emphasis will be placed on ingredients, flavor profiles, preparations, and techniques representative of the cuisines from Spain, France, Italy, Morocco, Tunisia, Greece, and Egypt. The course develops an expanded understanding and appreciation of why and how people from diverse world cultures with varying backgrounds approach food and beverages differently.

T) **PASTRY & BAKING ESSENTIALS:** Fruit-based desserts, Custards, Tarts, Doughs (brisée, sucrée, Danish, puff pastry, phyllo and bread), Pâte à choux

U) **CONTEMPORARY DESSERTS:** Chocolate tempering, Pizza, Confections, Cakes, Plated desserts.

The final unit will focus on the use of raw chocolate, fruit, berries and nuts to create delicious deserts including dairy free ice-creams, sorbets custards, vegan pastry and confectionary. Students will also review how to modify recipes. The course is dedicated to the art and ingredients of plant-based cuisine paying particular attention to food sources originating from plants. The course is not focused on any lifestyle, diet or ethical practice.

V) **CHARCUTERIE AND HORS D'OEUVRES:** This course will cover both the preparation and presentation of contemporary and classic charcuterie: pates, sausages, terrines, fermented foods, pickles, smoking and curing.

W) **Introduction to À La Carte Cooking.** The foundation of cooking techniques and theories from Culinary Fundamentals will be applied in a production setting. Emphasis is placed on individual as well as team production. The focus is on cooking fundamentals, ratios, and formulas in a professional kitchen. Multi-course menus will be prepared, with a focus on batch cooking as executed in an à la carte-style service.

"Order, fire, pickup!" In Introduction to à la Carte Cooking, you'll experience the energy of the production kitchen as you prepare multi-course menus for fellow students. And you'll do it all using the techniques you learned in Culinary Fundamentals and by practicing batch cooking and à la carte-style service.

x) **Cafe Production**

X) **Garde Manger.** An introduction to three main areas of the cold kitchen: reception foods, plated appetizers, and buffet arrangements. Students learn to prepare canapés, hot and cold hors d'oeuvre, appetizers, forcemeats, pâtés, galantines, terrines, salads, and sausages. Curing and smoking techniques for meat, seafood, and poultry items will be practiced, along with contemporary styles of presenting food and preparing buffets.

Y) **Wine and Beverage Studies.** This Course will examine the role that wine and other fermented beverages contribute to commercial dining experience. The course will emphasize the origin and style of wines from various global locations, and introduce concepts related to other fermented beverages such as cider. Brewed beverages including beer and sake, the theory and hands-on practice of pairing alcoholic beverages with food, professional level tasting and evaluation, and proper beverage service. Label terminology, palate development, flavor interaction, and traditional or "classic" European wine pairings will also be discussed. Other subjects include purchasing, storing, pricing,

merchandising, and serving wine and other alcoholic beverages in a restaurant or cafe setting.

Establish a systematic wine tasting method based on visual, olfactory and gustation perception of wine, thus making accurate judgements of wines. Subjects like introduction to wine production in different climate and geographical environment, wine cultivation, wine brewing, bottling and other knowledge provides a basis for refining sensory analysis and evaluation methods and improving blind tasting skills.

- Z) **VITICULTURE AND WINEMAKING**. Explains major viticulture techniques and winemaking methods, and how each of the steps in these processes will affects the final flavor of a wine.
- AA) **WINE PRODUCING COUNTRIES AND REGIONS**. Learn the specifics of each region and wine producing country, from the history, to the winemaking processes, with a focus on the fine sparkling wine regions of the world. This section includes wine tastings during class and at professional fairs. And on the basis the students will explore special wines from various regions around the world.
- BB) **ALCOHOLIC AND NON-ALCOHOLIC BEVERAGES**. Advanced knowledge on alcoholic and non-alcoholic beverages that can be offered as an alternative to wine, with explanations of coffee and tea. Students will develop a structured method to assess alcoholic and non-alcoholic beverages. This section also covers an introduction to various spirits, liqueurs, quality coffee and tea, premium bottled water and soft drinks and global trends.
- CC) **FOOD AND WINE PAIRING**. Drawing from the expertise of Le Cordon Bleu Master Chefs, students will experience food and wine pairing rules with both theoretical and practical understanding. From the fundamental theory of taste interaction, to the aroma and dining environment and timing considerations, the students will understand food and wine pairing comprehensively.
- DD) **Art and Science of Brewing**. Here's your chance to learn about the ingredients, equipment, and techniques of making craft brews in our own on-campus brewery. The beers you'll make in Art and Science of Brewing will be served in the CIA's public restaurants. Two of our student-made brews even earned gold medals in the New York State Craft Beer Competition, and our brewery was named the 2019 Brewery of the Year!
- EE) **Ingredient Functionality**: Texture Development, Stability, and Flavor Release. This course examines how modern cooks and food technologists use ingredients in ways that earlier generations would never have imagined, increasingly relying on novel ingredients such as thickening and gelling agents. Thickening and gelling are fundamental techniques in cooking, and many modern functional ingredients extend the possibilities for creativity and innovation. Students will discover how ingredients can be used to thicken or gel under conditions that traditional thickeners and gelling compounds can't, and be introduced to the remarkable variety of thickening and gelling agents now available to the modern chef. The science of emulsions, foams, and colloidal suspensions will also be covered.
- Fun with hydrocolloids (xanthan gum, gellan gum, and other food substances that form gels) and more! That's what awaits you in the Ingredient Functionality class. Through

cool experiments—like making a popping mango gel with sodium alginate and calcium lactate in a fruit purée—you'll begin to understand the power of your ingredients.

FF) **Flavor Development:** How does one create good flavor in food? What is good flavor?

Flavor Development approaches this subject from three perspectives: how to develop and maintain good flavor, what denotes balance in food and beverage, and how cooking techniques affect the finished flavor of foods. Understanding these concepts assist in the development of an educated palate. Students will work to develop their confidence in selecting appropriate beverages with foods based on simple taste, aroma, and texture comparisons and contrasts. Concepts such as how physiology of our senses affects our perception of food and beverages are introduced.

GG) **Professional Culinary Skills and Product Knowledge.** The unit builds a solid foundation of fundamental culinary skills beginning with knife skills and progressing to stocks, sauces, soups, preservation and unique skills and techniques. Product knowledge is an essential component of this programme including oils, vinegar, herbs, spices which will become essential to creating recipes as the plant-based vegetarian programme develops.

HH) **Prep, Fire, Plate**

II) **Principles of Menus and Managing Profitability in Foodservice Operations.**

Whether you manage and/or own a restaurant, operate a catering business, or run a food truck, there are certain fundamental management skills that apply to all foodservice operations. The ability to write well-balanced menus that meet the needs of your customers and are operationally functional and profitable is paramount to success. This course will highlight the basic principles of developing enticing menus that comply with truth-in-menus guidelines, as well as incorporating current research on consumer behavior relative to menu layout, design, and sales that maximize profit. Additionally, this course will focus on the management functions of running a profitable foodservice establishment, including the control process and managing revenue and expenses

JJ) **Advanced Concepts in Precision Temperature Cooking.** This course explores the techniques and applications of precision temperature cooking methods used for a variety of products and outcomes. The microbiology and sanitation practices for precision and low temperature cooking will be covered, as well as the techniques, equipment, and processes used in the restaurant kitchen and in the modern food production center. Focusing primarily on sous-vide cooking, students will explore other equipment and techniques used to give precise and replicable results, such as combi and water vapor ovens. They'll also create process flow systems for precision temperature cooking facilities and study topics such as pasteurization, heat treatment, modified atmosphere, re-tort, shelf life, and re-thermalization

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Notes

- Institute of Culinary Education

- 1) ☒ CULINARY FUNDAMENTALS: Course Highlights: Knife skills, Food safety and sanitation, Culinary math, Product identification, Palate development, Ingredient pairing
- 2) ☒ INTRODUCTION TO FISH, POULTRY AND MEAT: Beef/veal identification and fabrication, Pork fabrication, Poultry fabrication, Fish and shellfish
- 3) ☒ SAUCES AND SOUPS: Grand sauces, Compound sauces, Emulsified sauces, Contemporary sauces, Consommé, Vegetable-based soups, Reductions, Roux-based soups and bisques
- 4) ☒ DRY-HEAT COOKING METHODS: Sautéing proteins, starches and vegetables, Pan-frying proteins, starches and vegetables, Deep-frying proteins, starches and vegetables, Grilling proteins, starches and vegetables, Roasting proteins, starches and vegetables
- 5) ☒ MOIST-HEAT COOKING METHODS, VEGETABLES, GRAINS AND LEGUMES: Braising proteins and vegetables, Stewing proteins, starches and vegetables, Shallow poaching proteins, Steaming proteins and vegetables, Deep-poaching proteins and vegetables
- 6) FRENCH REGIONAL COOKING; ITALIAN REGIONAL COOKING: In this course students become familiar with characteristic ingredients, methods and dishes from Provence, Burgundy, Normandy and Alsace. (Italian) Piedmont, Tuscany, Abruzzo and 17 other regions comprise what we think of as Italian food
- 7) CUISINES OF ASIA; ADVANCED COOKING, PLATING AND PRESENTATION: This course acquaints students with the essential dishes of India, China, Japan and Thailand. Advanced Culinary Applications: Successful multitasking is one of the hallmarks of every chef. The challenges of bringing together all the components of an entrée require rigorous attention to timing and proper sequencing of tasks. This course is designed to enable students to assimilate these skills as they learn how to prepare and plate contemporary entrées.
- 8) PASTRY & BAKING ESSENTIALS: Fruit-based desserts, Custards, Tarts, Doughs (brisée, sucrée, Danish, puff pastry, phyllo and bread), Pâte à choux
- 9) CONTEMPORARY DESSERTS: Chocolate tempering, Pizza, Confections, Cakes, Plated desserts
- 10) CHARCUTERIE AND HORS D'OEUVRES: This course will cover both the preparation and presentation of contemporary and classic charcuterie: pates, sausages, terrines, fermented foods, pickles, smoking and curing.

- Culinary Institute of America at Hyde Park

- 1) ☒ CULS-100: Culinary Fundamentals. Topics of study include tasting, kitchen equipment, knife skills, classical vegetable cuts, stock production, thickening agents, soup preparation, grand sauces, timing and multi-tasking, station organization, palate development, culinary terms, and food costing. The course also introduces the student to fundamental concepts and techniques of basic

protein, starch, and vegetable cookery. Emphasis is placed upon the study of ingredients and an introduction to the concepts of ratios and formulas will be given

- 2)  Introduction to Gastronomy. The second half of the class centers on the history of French and American haute cuisine, and how cuisines change in response to technological developments, global events, and shifting cultural attitudes and beliefs toward food and eating
- 3) Principles of Menus and Managing Profitability in Foodservice Operations. Whether you manage and/or own a restaurant, operate a catering business, or run a food truck, there are certain fundamental management skills that apply to all foodservice operations. The ability to write well-balanced menus that meet the needs of your customers and are operationally functional and profitable is paramount to success. This course will highlight the basic principles of developing enticing menus that comply with truth-in-menus guidelines, as well as incorporating current research on consumer behavior relative to menu layout, design, and sales that maximize profit. Additionally, this course will focus on the management functions of running a profitable foodservice establishment, including the control process and managing revenue and expenses.
- 4) Introduction to À La Carte Cooking. The foundation of cooking techniques and theories from Culinary Fundamentals will be applied in a production setting. Emphasis is placed on individual as well as team production. The focus is on cooking fundamentals, ratios, and formulas in a professional kitchen. Multi-course menus will be prepared, with a focus on batch cooking as executed in an à la carte-style service.
- 5)  Meat Identification, Fabrication, and Utilization. This course will introduce the student to the subject of meats and their application in foodservice operations, building a strong foundation that supports the principles to be learned in the cooking courses to follow. Through lectures, demonstrations, hands-on activities, and reviews, students will learn about the muscle and bone structure of beef, veal, pork, lamb, game, and poultry; fabrication methods for sub-primal and foodservice cuts; and proper tying and trussing methods. Lectures will introduce meat inspection, quality and yield grading, costing and yield testing, purchasing specifications, and basic information concerning the farm-to-table trail. Discussions will include preferred cooking methods for all meats, proper knife selection, and butchery equipment. Sanitation and safety standards will be stressed throughout.
- 6)  Seafood Identification and Fabrication. An overview of the principles of receiving, identifying, fabricating, and storing seafood. Identification will involve round fish, flat fish, crustaceans, and shellfish. Topics include knife skills, yield results, quality checks, product tasting, storage of various types of fish, techniques for fabricating cuts for professional kitchens, special storage equipment, commonly used and underutilized species of fish, fishing and aquaculture techniques, and how to choose sustainable species.

- 7) **Garde Manger.** An introduction to three main areas of the cold kitchen: reception foods, plated appetizers, and buffet arrangements. Students learn to prepare canapés, hot and cold hors d'oeuvre, appetizers, forcemeats, pâtés, galantines, terrines, salads, and sausages. Curing and smoking techniques for meat, seafood, and poultry items will be practiced, along with contemporary styles of presenting food and preparing buffets.
- 8) **Wine and Beverage Studies.** This Course will examine the role that wine and other fermented beverages contribute to commercial dining experience. The course will emphasize the origin and style of wines from various global locations, and introduce concepts related to other fermented beverages such as cider. Brewed beverages including beer and sake, the theory and hands-on practice of pairing alcoholic beverages with food, professional level tasting and evaluation, and proper beverage service. Label terminology, palate development, flavor interaction, and traditional or "classic" European wine pairings will also be discussed. Other subjects include purchasing, storing, pricing, merchandising, and serving wine and other alcoholic beverages in a restaurant or cafe setting.
- 9) **Ingredient Functionality.** Fun with hydrocolloids (xanthan gum, gellan gum, and other food substances that form gels) and more! That's what awaits you in the Ingredient Functionality class. Through cool experiments—like making a popping mango gel with sodium alginate and calcium lactate in a fruit purée—you'll begin to understand the power of your ingredients.
- 10) **Art and Science of Brewing.** Here's your chance to learn about the ingredients, equipment, and techniques of making craft brews in our own on-campus brewery. The beers you'll make in Art and Science of Brewing will be served in the CIA's public restaurants. Two of our student-made brews even earned gold medals in the New York State Craft Beer Competition, and our brewery was named the 2019 Brewery of the Year!
- 11) **Cuisines and Cultures of the Mediterranean.** Olives, Wheat, Garlic, and Wine. California cuisine is known for its Mediterranean influence, so it makes perfect sense to dive deep into the ingredients and cooking methods of Spain, France, Italy, Morocco, Tunisia, Greece, and Egypt. In Cuisines and Cultures of the Mediterranean, you'll discover how each country's food is shaped by geography, history, and culture.
- 12) **Introduction to à la Carte Cooking.** "Order, fire, pickup!" In Introduction to à la Carte Cooking, you'll experience the energy of the production kitchen as you prepare multi-course menus for fellow students. And you'll do it all using the techniques you learned in Culinary Fundamentals and by practicing batch cooking and à la carte-style service.
- 13) **Cuisines and Cultures of the Americas.** Prepare, taste, serve, and evaluate traditional regional dishes of the Americas. Emphasis will be placed on ingredients, flavor profiles, preparations, and techniques for cuisines representative of the United States, Mexico, South America, and the Caribbean. The course develops an expanded understanding and appreciation of why and

how people from diverse world cultures with varying backgrounds approach food and beverages differently.

- 14) Cuisines and Cultures of the Mediterranean. Prepare, taste, serve, and evaluate traditional, regional dishes of Europe and the Mediterranean. Emphasis will be placed on ingredients, flavor profiles, preparations, and techniques representative of the cuisines from Spain, France, Italy, Morocco, Tunisia, Greece, and Egypt. The course develops an expanded understanding and appreciation of why and how people from diverse world cultures with varying backgrounds approach food and beverages differently.
- 15) Cuisines and Cultures of Asia. Prepare, taste, serve, and evaluate traditional and regional dishes of Asia. Emphasis will be placed on ingredients, flavor profiles, preparations, and techniques representative of the cuisines from China, Korea, Japan, Vietnam, Thailand, and India. The course develops an expanded understanding and appreciation of why and how people from diverse world cultures with varying backgrounds approach food and beverages differently.
- 16) Wine and Beverage Studies. This Course will examine the role that wine and other fermented beverages contribute to commercial dining experience. The course will emphasize the origin and style of wines from various global locations, and introduce concepts related to other fermented beverages such as cider. Brewed beverages including beer and sake, the theory and hands-on practice of pairing alcoholic beverages with food, professional level tasting and evaluation, and proper beverage service. Label terminology, palate development, flavor interaction, and traditional or "classic" European wine pairings will also be discussed. Other subjects include purchasing, storing, pricing, merchandising, and serving wine and other alcoholic beverages in a restaurant or cafe setting.
- 17) Advanced Concepts in Precision Temperature Cooking. This course explores the techniques and applications of precision temperature cooking methods used for a variety of products and outcomes. The microbiology and sanitation practices for precision and low temperature cooking will be covered, as well as the techniques, equipment, and processes used in the restaurant kitchen and in the modern food production center. Focusing primarily on sous-vide cooking, students will explore other equipment and techniques used to give precise and replicable results, such as combi and water vapor ovens. They'll also create process flow systems for precision temperature cooking facilities and study topics such as pasteurization, heat treatment, modified atmosphere, re-tort, shelf life, and re-thermalization. Additionally, the course will delve into creating and maintaining an effective HACCP plan.
- 18) Ingredient Functionality: Texture Development, Stability, and Flavor Release. This course examines how modern cooks and food technologists use ingredients in ways that earlier generations would never have imagined, increasingly relying on novel ingredients such as thickening and gelling agents. Thickening and gelling are fundamental techniques in cooking, and many modern functional ingredients extend the possibilities for creativity and innovation. Students will discover how ingredients can be used to thicken or gel under conditions that

traditional thickeners and gelling compounds can't, and be introduced to the remarkable variety of thickening and gelling agents now available to the modern chef. The science of emulsions, foams, and colloidal suspensions will also be covered.

- 19) ☒ Modern and Industrial Cooking Tools, Techniques, and Ingredients. In this course, students will study the use of industrial-scale cooking equipment and its applications in product development and food processing. Through the use of bench-top equipment, they'll conceptualize and model the steps from product ideation, development, and launch. Field trips to large-scale facilities and commissaries will help illustrate the application of equipment and the logistics of their use. Centrifuges, homogenizers, vacuum filters, freeze dryers, rotary evaporators, pasteurizers, and other specialized equipment that have moved from scientific laboratories to professional kitchens will be covered.

- Le Cordon Bleu

- 1) ☒ Basic Cuisine Certificate. From day one, you begin to master the basic skills: from how to hold a knife properly, to how to peel vegetables or how to truss a chicken. As the term progresses, techniques are layered on one another, and become more complex. Demonstrations become more menu-oriented, incorporating such elements as organisation, preparation, balance and timing. Students also learn how to use and integrate condiments, herbs and spices into their recipes producing a variety of flavours which complement the dishes prepared. As a solid grounding in basic cuisine, this programme is for beginners and experienced students alike.
 - a) French culinary terms and definitions, The use and care of cookery equipment, Working in a safe and hygienic manner, Food preparation and mise en place, Work organisation and planning, Introduction to French Cuisine, French classical cooking techniques, Variations of cooking methods, Fonds de Cuisine and foundation sauces production, Commodities - Product recognition
- 2) The Intermediate Cuisine (Intermediate Certificate) programme introduces you to classic French regional dishes through which you will apply the techniques introduced in the Basic level programme. Through practice and repetition, you begin to perform tasks more easily and instinctively. Intermediate Cuisine emphasises the importance of mise en place: understanding, organisation and production. Demonstrations highlight various kinds of presentations from platter to plate.
 - a) Product origins and influences on French regional cuisine
 - b) Perfecting professional kitchen skills
 - c) More advanced technical cuts and presentation
 - d) Food presentation techniques for platters and plates
 - e) Further developments in personal creativity and discipline
 - f) Introduction to Charcuterie
 - g) Prepare and cook simple hot and cold desserts

- 3) Superior Cuisine Certificate. The Superior Cuisine (Superior Certificate) programme culminates in Le Diplôme de Cuisine Le Cordon Bleu (Cuisine Diploma). You will learn about the current evolution of French cuisine. Full menus, demonstrated by the chefs, are inspired by trends from today's top kitchens. Some recipes are original; others are contemporary interpretations of the classics. The ingredients are richer and more refined: exposing the students to working with such ingredients as foie gras, truffles and lobster. Now well-versed in French culinary skills, you are encouraged in Superior Cuisine to be more creative in both taste and presentation.
 - a) Precision and efficiency in the kitchen
 - b) Mastery of intricate techniques and methods
 - c) Recipe production with high quality and rare produce
 - d) Mastery of classic "haute cuisine"
 - e) Adaptation of menus based on the season and product availability
 - f) Mastery of presentation and decoration
- 4)  Plant-Based Cuisine and Diet. Plant-Based Cuisine and Diet. This unit introduces plant-based cooking and will explain the principals of plant-based dietary requirements, culinary preparations, and cooking methods, providing detailed product knowledge and professional kitchen organisation skills. Students will also gain a food safety qualification which is required for working in a professional kitchen.
- 5) Professional Culinary Skills and Product Knowledge. The unit builds a solid foundation of fundamental culinary skills beginning with knife skills and progressing to stocks, sauces, soups, preservation and unique skills and techniques. Product knowledge is an essential component of this programme including oils, vinegar, herbs, spices which will become essential to creating recipes as the plant-based vegetarian programme develops.
- 6) Vegetable and Plant Foods. This unit will focus on vegetable ingredients, by introducing a range of vegetables such as flowers, bulbs, fungi and stems, tubers and sea vegetables. Students will have the opportunity to learn a variety of recipes, plating skills and culinary techniques.
- 7)  Grains, Pulses, Nuts & Seeds. Essential to plant-based cuisine the innovative recipes will include a range of breads, cooking with grains and explore the culinary world of beans, peas and lentils. Students will learn to identify these products and understand a range of cooking methods for their use.
- 8) Specialised Plant-Based Cuisines. This unit will build on the foundation from the previous units with focus on plant-based foods and beverages, diets and cultures around the globe. Current trends and innovations in the vegetarian food industry will be assessed in a creative environment. The unit includes specialised demonstrations and guest speakers.
- 9) Desserts: Chocolate, Fruit & Nuts. The final unit will focus on the use of raw chocolate, fruit, berries and nuts to create delicious deserts including dairy free ice-creams, sorbets custards, vegan pastry and confectionary. Students will also review how to modify recipes. The course is dedicated to the art and ingredients

of plant-based cuisine paying particular attention to food sources originating from plants. The course is not focused on any lifestyle, diet or ethical practice.

- 10) WINE SENSORY ANALYSIS. Establish a systematic wine tasting method based on visual, olfactory and gustation perception of wine, thus making accurate judgements of wines. Subjects like introduction to wine production in different climate and geographical environment, wine cultivation, wine brewing, bottling and other knowledge provides a basis for refining sensory analysis and evaluation methods and improving blind tasting skills.
- 11) VITICULTURE AND WINEMAKING. Explains major viticulture techniques and winemaking methods, and how each of the steps in these processes will affects the final flavor of a wine.
- 12) WINE PRODUCING COUNTRIES AND REGIONS. Learn the specifics of each region and wine producing country, from the history, to the winemaking processes, with a focus on the fine sparkling wine regions of the world. This section includes wine tastings during class and at professional fairs. And on the basis the students will explore special wines from various regions around the world.
- 13) ALCOHOLIC AND NON-ALCOHOLIC BEVERAGES. Advanced knowledge on alcoholic and non-alcoholic beverages that can be offered as an alternative to wine, with explanations of coffee and tea. Students will develop a structured method to assess alcoholic and non-alcoholic beverages. This section also covers an introduction to various spirits, liqueurs, quality coffee and tea, premium bottled water and soft drinks and global trends.
- 14) FOOD AND WINE PAIRING. Drawing from the expertise of Le Cordon Bleu Master Chefs, students will experience food and wine pairing rules with both theoretical and practical understanding. From the fundamental theory of taste interaction, to the aroma and dining environment and timing considerations, the students will understand food and wine pairing comprehensively.
- 15)  Spanish Cuisine Basic Course Structure
 - a) Basic Spanish Cuisine preparations: stocks, broths, sofritos..., Basic sauces: national & international, Hero ingredients: the egg & the potato, Introduction to the pulse family & its classic dishes, Mycology, How to work with & treat vegetables, Introduction to doughs, Fish: preliminary preparation, filleting & cooking methods, Basic knowledge of the world of seafood, Traditional preparation of roasts, stews & picklings, Preparation of classic tapas, Iberico Pork: characteristics & culinary applications, Introduction to poultry: preliminary preparation, cuts & cooking techniques, In-depth look at the history, techniques & secrets of Spanish rice dishes
- 16)  Spanish Cuisine Intermediate Certificate
 - a) A gastronomic tour of Spanish Regional Cuisine, Emblematic & classic Spanish regional dishes, "Sea & Mountain"-styled dishes, How tos of fillings, Introduction to game, Greater development of knowledge of cooking methods & cooking points, Advanced plating techniques, Classic

& Modern Interpretation of tapas: preparation & plating, In-depth look at the preparation of poultry, meats & fish, Initiation to recipe development & flavour harmony

17) Spanish Cuisine Superior Certificate:

- a) Avant-garde techniques & utensils, cooking in low temperature, spherifications & varied textures, Advanced cooking techniques applied to game meats, Reinventing & deconstructing classic dishes, Developing recipes using high-quality products & rare ingredients, Introduction to pasta, Initiation to seasonal & sustainable cuisine, Development of personal creativity, Fundamentals of modern vegetarian cuisine, Modern tapas, Sous-vide cooking, Fundamentals of molecular cuisine, Decorating & plating techniques

- Kendall College of Culinary Arts

1) Basic Culinary Skills

 Knife skills; Culinary terminology; Food science principles; Professionalism; Sautéing, roasting and grilling; Braising and stewing; Menu development and evaluation; Starches, proteins and vegetables.

- 2) Advanced Culinary Skills: Timing and plating; Seafood, meats and sauces; Café production; Alcohol service; Dining room service; Pickling, sausage-making, smoking and canning; Special events and banquets; Menu planning.

- 3) Business and Management: Accounting concepts; Financial statement analysis; accounting controls in food service; Purchasing food and beverages; Vendor relationships; Receiving and storing methods; Inventory control; Product identification; Human resources management; Maintaining a customer base; Managing and leading a foodservice organization.

4) Prep, Fire, Plate

- New England Culinary INstitutue

- 1)  Culinary Foundations: Understanding the ingredients, procedures, and underlying principles of cooking techniques are essential to the success of culinary professionals. A chef is responsible for training and supervising a safe, skilled, and efficient staff. To do this requires an ability to understand the 'how' behind what we do in the kitchen. Understanding the nature of food and how it reacts when cooked enables a chef to interpret, adapt, and create recipes with confidence. Culinary Foundations is designed to help students understand the relationship between practical cooking applications and theoretical information, especially as they are related to understanding and following recipes in a professional kitchen. Areas of focus include basic knife skills, vocabulary of cooking, and the fundamentals of starch, vegetable, and protein cooking methods.

- 2)  Culinary Foundations 2: Culinary Foundations II both reinforces skills learned in the Foundations I class and introduces more advanced techniques. The course furthers student knowledge in modern kitchen operations, roles, responsibilities, methods, and best practices. Theoretical knowledge is transformed through extensive hands-on learning activities in the learning kitchen where students

- 3)  Butchery
- 4) Global Traditions: Culture and Cuisine: This class is designed to develop a sense of global food knowledge from around the world, including regions of Asia, Africa, and the Middle East. Students will study the food products of these regions, the taste and flavors developed within those regions as well as key aspects of food styles, cooking techniques, menu development, and food distribution within the regions. The study of global cuisine allows students to understand the quality of food products within those regions, and the importance of food sourcing from local, regional, and national gardening systems. The support of regional food sources and the necessity for understanding policies and procedures related to global cuisine are part of becoming a globally-responsible food service professional of the 21st century.
- 5) Culinary Methods: This course is designed to advance the techniques and knowledge of students in a variety of culinary areas. It builds upon the skills, techniques, and principles introduced in Culinary Foundations I & II to further the mastery of cooking methods. Topics to be included include advanced knife skills, stocks, sauces, soups, vegetables, grains, and egg cookery. Students will also study plate presentation, cost controls, and menu conversions
- 6) Flavor Development: How does one create good flavor in food? What is good flavor? Flavor Development approaches this subject from three perspectives: how to develop and maintain good flavor, what denotes balance in food and beverage, and how cooking techniques affect the finished flavor of foods. Understanding these concepts assist in the development of an educated palate. Students will work to develop their confidence in selecting appropriate beverages with foods based on simple taste, aroma, and texture comparisons and contrasts. Concepts such as how physiology of our senses affects our perception of food and beverages are introduced.

- Johnson & wales Universit

- 1) Craft Brewing (Minor): Students learn advanced brewing theory and the technical skills needed to develop and produce original recipes. Students also develop advanced sensory and laboratory analysis skills, process management, sanitation and packaging, regulatory compliance, and retail and wholesale sales.
 - a) Brewing Art: This course helps students develop an understanding of traditional and modern styles of beer and brewed alcoholic beverages by examining production methods and ingredients and through sensory analysis. Students explore historical context, as well as modern industry structures and trends. Students learn how to brew an all-grain beer recipe and to identify common beer faults and their causes. Upon completion of this course, students are prepared to sit for the Certified Beer Server exam from the Cicerone Certification program.

- b) **Brewery Operations and Planning:** This course prepares students to plan and develop their own brewery or brewpub. Students explore topics such as facilities layout and design, equipment sizing and configuration, location and siting factors, compliance and regulatory environment, HACCP, safety and quality control, resource and waste management, conservation and sustainability, types of finance, marketing, production scheduling, and forecasting. The focus is on the American craft brewing industry and structure, though most concepts can be applied internationally. Upon completion of the course, students are prepared to construct a preliminary plan for a brewery business.
- c) **Advanced Brewing Theory and Analysis:** This course allows students to explore brewing theory in depth, as preparation for a career in craft brewing and beer judging. Students explore topics such as malting science, water chemistry, hop growing technology and yeast microbiology as they relate to the art of craft brewing. Students describe variations in classic and contemporary beer styles in detail, with a special emphasis on ingredient and process variables as they relate to flavor and style accuracy. Advanced sensory analysis skills and critical thinking are developed throughout the class. This course prepares students to take the Beer Judge Certification Program (BJCP) Entrance Exam and BJCP Judging Exam to become a BJCP Recognized Judge
- d) **Advanced Brewing Theory Lab:** Students examine the effects of various factors impacting the flavor, appearance and condition of beer and learn how to utilize typical brewery laboratory equipment and techniques to assess product quality and consistency. Students also gain an introduction to applied brewing techniques, as well as brewery safety and sanitation and proper use of cleaning chemicals and protective equipment. Emphasis is on ASBC standard methods of analysis, laboratory microbiology, and application of the scientific process.
- e) **Foundations of Fermented Foods**
- f) **Exploring Cheese**
- g) **Exploring Mead and Honey:** This course provides students the opportunity to explore the origins and history of honey and honey fermentation, as well as challenges to the apiary industry and the effects of terroir on honey quality. Students learn about the role and importance of bees and honey in the global food industry. Various types of mead, the world's oldest documented fermented beverage, are analyzed and produced. Packaging, labeling, licensing and regulatory compliance, as well as sales and marketing aspects, are also explored. Successful students should be prepared to sit for the BJCP Mead Judge Certification exam.
- h) **Exploring Ciders and Fruit Wines**
- i) **Beer Sommelier Capstone:** This course explores modern beer sales and service methods through case studies and real-world application of beer

service principles. Students employ critical thinking to troubleshoot and critique issues concerning production, storage, service and sales. Students evaluate the management of retail beer operations through analysis of facilities and menu design, beer and food pairing strategies, accurate sales descriptions, and responsible alcohol service. Upon successful completion of this course, students may be prepared to sit for the Certified Cicerone examination.

- j) British Practical Brewing (Study Abroad): This rigorous, experience-based course is ideal for students who want to work in or develop their own microbrewery or brewpub. Students work with JWU faculty in preparation for and during their hands-on coursework with our educational partner, Brewlab in the UK. Students enhance their knowledge of brewing theory and develop their skills in practical brewing, recipe formulation, sensory analysis, marketing and brewery design. Students work alongside professional brewers, scientists and industry professionals in both laboratory and field settings to earn practical, professional brewing experience. Students learn traditional and modern ale-brewing technology both on-site and at local craft breweries. Students may attend evening and weekend excursions to regional maltsters, hop yards and breweries, and other historic and cultural sites.
 - k) Applied Craft Brewing Capstone
- 2) Sommelier Management (Minor): There is a focus on food pairing principles, beverage menu development, server staff training, costing methodologies and inventory control systems for the purchase, storage, distribution and sales of beverages.
- a) Foundations of Wine
 - b) New World Wines
 - c) Old World Wines
 - d) Sommelier Capstone: This course provides a comprehensive overview of beverage sales and service techniques giving the student the ability to select appropriate products for a successful beverage program. Students focus on food and beverage pairings, the development of beverage lists, and the training techniques for successful sales. Relevant selection and purchasing of beverages, inventory controls, storage and distribution management is emphasized. Guest-centered hospitality, liability and responsible service are reinforced throughout. Sommelier career options are explored across the beverage industry
 - e) Coffee, Tea and Non-alcoholic Beverage Specialist: The role of non-alcoholic beverages in profitable beverage programs is a focus of this course. It combines advanced knowledge and application of coffee, tea, water, ready-to-drink and other non-alcoholic beverages with structured systematic tastings, analysis, production and service.
 - f) Volcanic Island Wines: The Azores and Madeira: This nine-day intensive overview course is designed to provide students with an appreciation of

the culture of Madeira and the Azores, and their history of grape-growing and wine-making that reflect a sense of place. Students discover the role of wine tourism, marketing and the commercial position these wines hold in the global marketplace. Students are exposed to the culture and cuisine of the region (islands), and explore how and why their wines pair best with cuisines.

- g) Exploring Ciders and Fruit Wines
- h) Spirits and Mixology Management
- i) British Practical Brewing #
- j) Sommelier Training: With a focus on practical sommelier skills training, this course gives students the opportunity to study wines from a region or country, providing a deeper understanding of quality factors in the making of wines within a cultural and historical context. Students develop wine service skills including food and wine pairing understanding. Participants have lectures and presentations by experts, augmented with excursions to regional wineries, wine cellars, and visits to local cultural sites.

- Culinary Institute of America at Greystone
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- International Culinary Center

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