**Food Production Lab**

**TS1 (120 Hours)**

**Course Description:**

This course is designed to provide the food basics and cooking essentials. Students begin by a general knowledge about chefs in history; point and nouvelle cuisine; modern food service operations. They learn to identify and properly use cooking and preparation equipments. Then through a carefully designed progression of classes, students gain theoretical knowledge and the practical skills that allow them to study and practice in-depth the classical French cuisine and the authentic Lebanese cuisine in term of simple dishes. Simple desserts and Ice creams are also included.

**FIRST : TECHNOLOGY**

**General Outcomes:**

At the end of this course the student should have the following knowledge::

**1.** Describe four major development that significantly changed the food-service industry in the twentieth century.

**2.** Name the most important components of food and describe what happens to them when they

are cooked.

**3.** The safe and efficient use of standard kitchen equipment; processing equipment; holding and storage equipment; measuring devices; and knives, hand tools, and small equipments.

**4.** Explain the differences between moist-heat cooking methods, dry-heat cooking methods, and dry-heat cooking methods using fat.

**5.** Define *mise en place*, and explain why care must be taken in its planning.

**6.** Basics ingredients and different types of stocks and sauces.

**Topics covered:**

1 The Food-Service Industry

2 Sanitation and Safety

3 Tools and Equipment

4 Basic Principles of Cooking and Food Science

5 Mise en Place

6 Stocks and Sauces

**Chapter 1 The Food-Service Industry**

**Learning objectives**

**1.** Name and describe four major developments that significantly changed the food-servic industry in the twentieth century.

**2.** Identify seven major stations in a classical kitchen.

**3.** Explain how the size and type of an operation influence the organization of the modern kitchen.

**4.** Identify and describe three skill levels of food production personnel.

**5.** Identify eight behavioral characteristics food-service workers should develop and maintain to achieve the highest standards of professionalism

**Content**

1.1 A History of Modern Food Service

1.2 The Organization of Modern Kitchens

1.3 Standards of Professionalism

**Chapter 2 Tools and Equipment**

**Learning objectives**

1. Identify the do’s and don’ts associated with the safe and efficient use of standardkitchen equipment; processing equipment;holding and storage equipment; measuringdevices; and knives, hand tools, and smallequipment

**Content**

3.1 Introduction to Quantity Food Equipment

3.2 Cooking Equipment

3.3 Processing Equipment

3.4 Holding and Storage Equipment

3.5 Pots, Pans, and Containers

3.6 Measuring Devices

3.7 Knives, Hand Tools, and Small Equipment

**Chapter 3 Basic Principles of Cooking**

**and Food Science**

**Learning objectives**

**1.** Name the most important components of food and describe what happens to them when they are cooked.

**2.** Name and describe three ways in which heat is transferred to food in order to cook it.

**3.** Describe the two factors or changes in cooked foods that determine doneness.

**4.** List three factors that affect cooking times.

**5.** Explain the advantage of boiling or simmering in a covered pot. Describe three situations in which a potshould not be covered during simmering or boiling.

**6.** Explain how cooking temperature affects the doneness characteristics of a food item.

**7.** Explain the differences between moist-heat cooking methods, dry-heat cooking methods, and dry-heat cooking methods using fat.

**8.** Describe each basic cooking method used in the commercial kitchen.

**9.** Identify the five properties that determine the quality of a deep-fried product.

**10.** Describe the two main steps in the process of cooking sous vide.

**11.** List six safety guidelines for cooking sous vide.

**12.** Explain the difference between a seasoning and a flavoring ingredient and give examples of each.

**13.** Identify appropriate times for adding seasoning ingredients to the cooking process in order to achieve optimal results..

**Content**

4.1 Heat and Food

4.1.2 What Is Heat?

4.1.3 Heat Transfer

4.1.4Heat Management

4.2 Cooking Methods

4.2.1 Moist-Heat Methods

4.2.2 Dry-Heat Methods

4.2.3 Dry-Heat Methods Using Fat

4.2.4 Microwave Cooking

4.2.5 Cooking Sous Vide

4.3Building Flavor

4.3.1 Building Flavor Profiles

4.3.2 Seasoning and Flavoring Ingredients

4.3.3 Using Herbs and Spices

**Chapter 4 Mise en Place**

**Learning objectives**

**1.** Define *mise en place*, and explain why care must be taken in its planning.

**2.** Describe five general steps used in planning mise en place.

**3.** Explain the difference in preparation requirements for set meal service and extended meal service.

**4.** List five guidelines to observe when sharpening a chef ’s knife.

**5.** Demonstrate major cutting techniques required in food preparation.

**6.** Describe basic precooking and marinatin procedures.

**7.** Set up and use a standard breading station.

**8.** Define *convenience foods* in the context of mise en place, and list eight guidelines for their use.Planning and Organizing Production

**Content**

5.1 Using the Knife

5.2 Preliminary Cooking and Flavoring

5.3 Preparation for Frying

5.4 Handling Convenience Foods

**Chapter 5 Stocks and Sauces**

**Learning objectives**

**1.** Prepare basic mirepoix.

**2.** Flavor liquids using a sachet d’epices, or spice bag.

**3.** Prepare white veal or beef stock, chicken stock, fish stock, and brown stock.

**4.** Cool and store stocks correctly.

**5.** Prepare meat, chicken, and fish glazes.

**6.** Evaluate the quality of convenience bases, and use convenience bases.

**7.** Explain the functions of sauces, and list five qualities a sauce adds to food.

**8.** Prepare white, blond, and brown roux, and use them to thicken liquids.

**9.** Prepare and use beurre manie.

**10.** Prepare and use egg yolk and cream liaison.

**11.** Prepare the five leading sauces: bechamel, veloute, brown sauce or espagnole, tomato, and hollandaise.

**12.** Prepare small sauces from leading sauces.

**Content**

6.1 Stocks

6.1.1 Ingredients

6.1.2 Procedures

6.1.3 Reductions and Glazes

6.1.4 Convenience Bases

6.2 Sauces

6.2.1 Understanding Sauces

6.2.2 Roux

6.2.3 Other Thickening Agents

6.2.4 Finishing Techniques

6.2.5 Sauce Families

**SECOND : kitchen laboratory**

**General objectives:**

The hotel management graduate has to use the time and energy of himself and his staff in the most effective manner.

To ensure the process steps

– Planning

– Acquisition

– Production and cooking

– Holding and storage

– Service

– Customer needs

he/she should have a lot of experience in food preparation.

The students execute different production tasks during menu preparation.

They should know all about the roots of classical cuisine.

Students prepare dishes with the specific cooking processes.

To ensure best performance of produced dishes, they have to know all about correct creating from recipes, proportion from main piece (meat, fish, poultry,…) and side dishes

Desserts are linked with production of pastry and bakery products.

The knowledge of other courses mentioned in this curriculum such as hygiene and nutrition ensures networked thinking in menu creation and preparation.

Modern presentation of produced dishes ensures modern kitchen art and customer satisfaction.

Practical execution is the most important part of this module. They have to prepare the dishes , together with the support and advice from the teacher.

The students analyze the results of the produced dishes together with the teacher and decide about required improvements.

**Vegetables and Fruits**

**Learning objectives**

* Give examples of market forms of vegetables and fruits
* List cooking and holding principles that control the quality characteristics of vegetables and fruits
* Identify the appropriate preparation techniques for fresh and dried vegetables and fruits
* Analyze cooking methods for vegetables according to market forms
* Prepare fresh, frozen, canned, and dried vegetables and fruits by boiling, steaming, sautéing, braising, pan-frying, baking, deep-frying, and broiling methods
* Evaluate prepared fresh, frozen, canned, and dried vegetables and fruits to determine achievement of appropriate quality levels

# Practical works

Different vegetables and ingredients for production of example dishes, side dishes

* + Linked with use of tools and equipment

Vegetables

Wash, trim and prepare: Artichokes. Artichokes bottoms. Eggplants. Cauliflower. Broccoli. Belgian endive. Green peas. Fennel. Cabbage. Okra. Haricots. Cucumbers. Carrots. Leek. Bell peppers. Beets. Parsnips. Celery. Asparagus. Spinach. Tomato. Zucchini. Onion. Garlic… .

Cuts of vegetables : Julienne, Brunoise, Macédoine, Jardinière, Paysanne, Concassée.

Fruits

Wash, trim and prepare different types of fruits.

Jam, Marmalade, Jelly, Chatney (Pear, Mango, Fig & Apple, Apricot…)

1. **Stocks - Basic sauces – Bindings**

**Learning objectives**

* Define types of stocks according to their uses
* Analyze the ingredients of stocks and the functions of each
* List the steps in the procedure for preparing, handling, and holding stocks
* Prepare the types of stocks
* Evaluate prepared stocks to determine achievement of appropriate quality levels

# Practical works

Specify ingredients for stocks and soups production

# White stock

# Brown stock

# Reduced veal stock (for sauce)

# White chicken stock

# Fish stock

Prepare the five leading sauces : Béchamel , Espagnole , Hollandaise , Tomato sauce , Velouté (chicken, veal, fish, mutton)

Demi-glace

# Thickening products : Beurre manié, White roux, Blond roux, Brown roux, Continental roux, Egg yolks, Corn flour, Starch, Cream or Butter, Rice (in case of some shellfish bisques), Thickening the stock by reducing.

1. **Lebanese Cold Mezzah**

حمص بطحينة - بليلة - متبل باذنجان - باذنجان الراهب - فتوش - تبولة - لوبيا خضراء بالزيت

1. **Soups**

**Learning objectives**

* Describe the types and uses of soups
* Outline procedures for the preparation and holding of clear, thick, ands specialty soups
* Prepare clear, thick, and specialty soups
* Evaluate prepared soups to determine achievement of quality levels

# Practical works

Chicken soup (crème de volaille or crème reine)

Asparagus soup (crème d’asperges)

Mushroom soup (crème de champignons)

# Potage cultivateur

Potage garbure

حساء القيما

شوربة العدس بحامض

1. **Breakfast and egg dishes**

**Learning objectives**

* Identify the major parts of an egg according to nutritional content
* List the market forms, grades, and sizes of eggs
* State the uses of eggs
* Identify the principles of egg cookery
* Analyze cooking methods used in the preparation of eggs
* Prepare eggs by simmering in the shell, poaching, frying, shirring, scrambling, omelette, and soufflés
* Evaluate prepared eggs to determine achievement of appropriate quality levels
* Demonstrate safe and hygienic practices, mainly to avoid salmonella contamination
* Prepare breakfast items such as cereals, potatoes, meats, and quick breads using previously learned cooking principles
* Evaluate prepared menu items using cheese to determine achievement of appropriate quality

# Practical works

Eggs in cocotte

Boiled eggs (oeufs à la coque)

Soft-boiled eggs (oeufs mollets)

Hard-boiled eggs (oeufs durs)

Soft-boiled eggs with spinach

Eggs with chicken liver - with ham - fried with bacon

Omelette nature - with parsley - with mushroom - with cheese - rolled omelette

1. **Lebanese Cold Mezzah**

مجدرة - مدردرة - بامية بالزيت - ورق عنب محشي بالزيت - مصقعة باذنجان - أرضي شوكي بالزيت

1. **Salads and dressings**

**Learning objectives**

* Classify types of salads according to their function in the meal
* Provide aesthetic appeal in menu planning and serving food
* Identify the parts of the salad
* Name the ingredients commonly used in salads
* Outline the preparation procedures for salads
* Prepare the types of salads
* Evaluate the types of prepared salads to determine achievement of appropriate quality levels
* Name the categories of salad dressings
* Identify the ingredients in salad dressings. List examples of temporary and permanent emulsions in salad dressings
* Outline procedures for preparing temporary and permanent emulsions in salad dressings
* Prepare temporary and permanent emulsions salad dressings
* Evaluate the prepared temporary and permanent emulsions in salad dressings to determine achievement of appropriate quality levels

# Practical works

Salad dressings : Vinaigrette, Citronade, Thousand Island dressing… .

Mayonnaise sauce

Preparation of fresh vegetables platter

Crudités

Season salad - Cabbage salad - Beetroot salad - Potato salad

French bean salad (salade de haricots verts)

Caesar salad

Niçoise salad

Greek salad

Russian salad (salade russe)

Pânaché salad

Boiled eggs with cocktail sauce

1. **Fish**

* Demonstrate the correct use of tools and equipment to prepare fish and shellfish
* Prepare fish and seafood using baking, broiling, grilling, sautéing, pan frying, deep frying, steaming, smoking, simmering, and poaching methods
* Demonstrate portion control with cuts of fish
* Apply flavourings to fish and shellfish. Apply coating to fish and shellfish
* Demonstrate safe and hygienic practices
* Evaluate prepared dish and seafood to determine achievement of appropriate quality levels

**Practical works**

Fish preparation

Dressing a fish

Filleting of flat fish

Filleting of round fish

Cuts of fish : Steaks (darnes), Fillets, tronçons, Suprêmes, Goujons, Paupiettes, Ciseler

Fish cooking

Fried – Grilled - Poached

Fillets sauté , pané

سمك مقلي مع الطرطور

1. **Poultry**

**Learning objectives**

* Demonstrate preparation skills, and portion control with cuts of poultry
* Apply flavourings and coatings to cuts of poultry
* Demonstrate safe and hygienic practices, including correct storage procedures
* Prepare poultry classes using roasting, baking, broiling, grilling, sautéing, pan frying, deep frying, simmering, poaching, braising, and stewing methods
* Evaluate prepared poultry classes to determine achievement of appropriate quality levels

**Practical works**

Poultry preparation

Trussing , Cutting for sauté and fricassée, Boning, Preparation for grilling, Preparation for suprêmes, Preparation for ballotines, Cutting of cooked chicken.

Poussin grillé

إعداد الشيش طاووق مع صلصة الثوم

1. **Meats**

**Learning objectives**

* Identify tools and equipment used in the cooking of meat
* Explain suitable cooking methods for joints or cuts of meat
* Explain reasons for applying cooking principles to meat
* Demonstrate moist heat methods of cooking including roasting and baking, broiling and grilling, griddling, sautéing, frying, and deep frying
* Demonstrate combined methods of cooking including braising and stewing
* Explain how to determine when meat are cooked
* Evaluate prepared meats to determine achievement of appropriate quality Levels

**Practical skills**

Prepare different types of marinades

Make sauces, gravies and jus for meat dishes

Prepare dressings and flavoured butters / oils for meat and offal dishes

Prepare garnishes for meat and offal dishes

Demonstrate safe and hygienic practices

**Practical works**

Meat preparation

Order of dissection of a carcass

Preparation of joints and cuts (shoulder, breasts, middle neck, saddle, rib, brisket, sirloin, flank, fillet …)

Lamb

Roasting of lamb and mutton

Roast gravy

Roasting leg of lamb

Best end of lamb boulanger (carré d’agneau boulanger)

Grilled cutlets (côtelettes d’agneau grilles)

Mixed grill

Hot pot of lamb or mutton (pot au feu)

Beef

Chateaubriand

Grilled beef : rare, medium, well-done

Braised beef

Paupiettes de boeuf

Hamburger, American style

1. **Starches**

**Learning objectives**

* Prepare rice by boiling, steaming, pasta, risotto and pilaf methods
* Evaluate prepared rice to determine achievement of appropriate quality Levels
* Classify the types of pasta according to uses
* Outline the procedure for boiling pasta
* Prepare pasta by the boiling method
* Evaluate prepared pasta to determine achievement of appropriate quality levels

**Practical works**

Rice :

Pilaff rice (riz pilaff)

Vermicelli rice

Oriental rice

Saffron rice

Pasta dishes

Spaghetti napolitana

Spaghetti bolognaise (spaghetti alla bolognese)

Green lasagna

Nouie au poulet

1. **Lebanese dishes**

كوسى محشو مع البندورة - باذنجان محشي شرقي – ملفوف محشي شرقي – ورق عنب محشو بالزيت

اليخنات : يخنة اللوبياء الخضراء - أرز بشعيرية

يخنة الفاصوليا البيضاء - أرز مفلفل

يخنة الأرضي شوكي - أرز مفلفل

يخنة البازيلا - أرز مفلفل

يخنة البامية - أرز بشعيرية

الكبة : كبة نية - كبة بالصينية - كبة أقراص - كبة دجاج - كبة اليقطين

1. **Grilled dishes**

**Learning objectives**

* Cook, present and garnish the grilled dishes with taste and art

**Practical works**

مشاوي شرقية : كفتة مشوية - كباب مشوي - كباب أورفلي - لحم غنم مشوي على السيخ

Contre filet roti - Steak grille , sauce béarnaise - Entrecôte grille , sauce choron

1. **Dessert**

**Learning objectives**

* Prepare different categories of oriental and classical desserts according to the rules of hygiene.
* Present the prepared desserts with appropriate garnish and art.

**Practical works**

حلويات شرقية : أرز بحليب - المهلبية - قشطلية - السحلب - معمول بالجوز ، بالفستق الحلبي ، بالتمر (أقراص ، مدّ) - مغلي - معكرون - عيش السرايا

Mousse au chocolat – Crème caramel

Fruit salad - Fruit compote - Fruit jelly

Genoise - Chantilly cream – Foret noir – Gateau genoise – Gateaux rouleaux

Sablée – Various types of cookies ( petit four ) based on macaroon , coconut and sable dough

1. **Ice creams**

**Learning objectives**

* Prepare different categories of ice creams according to the rules of hygiene
* Present the ice creams in bowls with appropriate garnish and art

**Practical works**

Vanilla ice cream

Fruit ice cream

Chocolate ice cream

Lemon sorbet

Champagne sorbet