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## Introduction

Molecular cuisine - blended (on line and practical) Trainers: **Alex Such, Raquel Domenech.**

Term: January - March 2018 Number of hours: 48h.

18 hours on-line.

28 hours practical lessons.

2 hours validation of the course.

Form of conducting the course: blended. (on-line and practical)

The condition of fulfilling the course is the participation of all pointed activities and complementation of all tests.

## Block I - Using specific products

- Soy lecithin.
- Carbohydrate. Type of alga.
- Elastic.
- Gellan gum.
- Agar agar.
- Sodium alginate.
- Chloride of sodium.
- Rubber Xantana.

## Block II - Molecular cuisine preparations I

- Preparation of Menus in Molecular Cuisine.
- Preparation of Dishes in Molecular Cuisine: appetizers.
- Preparation of Starters in Molecular Cuisine: cocktails and salads.
- Preparation of Main Course in Molecular Cuisine: Rice.
- Preparation of Main Course in Molecular Cuisine: Vegetables.
- Preparation of Main Course in Molecular Cuisine: Salty Coca and Pasta.
- Preparation of desserts in Molecular Cuisine.

## Block III - Molecular cuisine preparations II

- Preparation of Starters in Molecular Cuisine: Salads.
- Preparation of Starters in Molecular Cuisine: Shellfish.
- Preparation of Starters in Molecular Cuisine: Shrimps, Crabs, Lobsters.
- Preparation of Main Course in Molecular Cuisine: Seafood.
- Preparation of Main Course in Molecular Cuisine: Meats.
- Forms and Aesthetic Compositions.

## RECIPE I

# RED FRUITS SPAGHETTI WITH SPHERIFICATION OF YOGURT

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INGREDIENTS	QUANTITY
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Red fruits	500ml
Agar agar	2gr
Sugar	50gr
Water	50ml

## METHOD

- Make a coulis and strain.
- Add the agar agar and bring to a boil.
- Fill the probe with the syringe and bathe in the ice water bath. Cool.
- Push out with the syringe.
- Accompany spaghetti with the yogurt spherification.

## RECIPES II - SPAGHETTI 3 CHOCOLATES

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INGREDIENTS	QUANTITY	METHOD
<b>Black spaghetti</b>		
Dark chocolate	85gr	· Mix all the ingredients until it is dissolved, and it comes to a boil.
Water	175ml	· Absorb with the syringe and go through the probe.
Ron	15ml	· Cool in a bath with ice.
Agar agar	2gr	· Push out with the syringe.
<b>White spaghetti</b>		· Serve with the 3 spaghetti in the plate.
White chocolate	85gr	· Decorate with the leaf of mint.
Water	175ml	
Ron	15ml	
Agar agar	2gr	
<b>Milk spaghetti</b>		
White chocolate	85gr	
Water	175ml	
Ron	15ml	
Agar agar	2gr	



## RECIPE III

# TOMATO GEL WITH MODENA VINEGAR CAVIAR AND ENCAPSULATED BASIL OIL (DECONSTRUCTION OF CAPRESE SALAD)

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INGREDIENTS	QUANTITY	METHOD
Tomato juice	250ml	· Prepare tomato juice with Xantana, mix with a blender until textured.
Xantana gum	1gr	
<b>Modena vinegar pearls</b>		· Mix the Agar Agar with the balsamic vinegar and bring to boil.
Agar Agar	2 gr	
Sunflower oil	C/s	· Make the caviar with the syringe dropping drops in the sunflower oil.
Balsamic vinegar	150ml	
<b>Encapsulated</b>		· Make a basil oil.
Olive oil	150ml	
Fresh basil	20gr	· Undo sugar Isomalt and with a pipette perform encapsulations.
Isomalt sugar	200gr	

## INGREDIENTS QUANTITY

Mature tomato	0.5kg
Knuckle bone	1 unit
Bouquet Garni with garlic	1 unit
Onion	20gr
Leek	25gr
Carrot	15gr
Flour	15gr
Oil	½ dl.
Peppers	2gr
Bacon	10grW
White base	1dl
Salt, sugar, white pepper	c/s
<b>Parmesan pearl</b>	
Nata	400ml
Parmesan	400gr
Alginate	2gr
Calcium	10gr
Honey caviar	
Mineral water	80ml
Honey	125gr
Agar Agar	2 gr
Sunflower oil	C/s
Saffron threads	C/s

## RECIPES IV

### TOMATO SAUCE WITH PARMESAN PEARL, HONEY AND SAFFRON CAVIAR

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#### METHOD

- Sauté in the oil the brunoise, with the knuckle bone and the bacon.
- Add the flour and sauté.
- Add the paprika and the flour by sautéing very lightly and then incorporate the chopped tomato roughly together with part of its juice.
- (if it is canned).
- Wet with white base.
- Incorporate the bouquet garn.
- Season and cook for 45 min.
- Remove knuckle bone, bacon and bouquet garni.
- Blend in blender and refine.
- Undo the cream with the parmesan and make a sauce.
- Arrange the calcium with the parmesan and cream mixture.
- Bathe the alginate with a blender and leave to set for 15 minutes.
- Then make the pearls.
- Mix honey with water, saffron strands and agar agar, bring to a boil.
- Cool the sunflower oil and make the caviar with a syringe.

## RECIPES V

### YOGURT SPHERIFICATION

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INGREDIENTS	QUANTITY
Liquid Yogurt	150gr
Calcium lactate	2.5gr
Sodium alginate	2gr
Mineral water	475ml

### METHOD

- Stir the water with alginate and leave to stand for 15 minutes.
- Mix the yogurt with calcium lactate.
- Make spheres in the previous water with the yogurt mixture.
- Chill for 3 minutes and then wash with water.
- Serve.

## RECIPES VI

# MUSHROOM FOAM WITH PARMESAN CHEESE CRUNCH

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### INGREDIENTS      QUANTITY

Onion	1 unit
Garlic clove	1 unit
Varied mushroom	200 gr
Cooking cream	200 ml
Butter	15 gr
White wine	1 dl
Hard bread	50 gr
Chopped ham powder	25 gr
Rosemary sprig	C/s
White base	c/s
Parmesan	100gr
Dried tomatoes	25gr
Chopped bacon	20gr
Oregano	c/s

### METHOD

- Putting all the ingredients (Prepare the Mise en place of the ingredients and utensils).
- Cut the onion into brunoise and chop the garlic.
- Clean and chop the mushroom roughly.
- Thicken, without mounting 1 dcl of cream, cook and let it set.
- Cut, clean and refresh in cold water the sprigs of rosemary. (2 small)
- The mushroom cream.
- Melt the butter, add the olive oil and drop the onion white.
- Add and brown the garlic and incorporate the mushrooms. Fry until the moisture disappears.
- Add the wine and reduce until half, season with salt pepper and nutmeg.
- Pour the bottom and cook for about 15 minutes. Let cool.
- Grind until you get a fine cream and refine with cream.
- Rectify the seasoning point.
- Strain the cream and put in the siphon. They have two loads of siphon.
- Arrange in a glass and decorate with the crunchy parmesan.
- **Crunchy Parmesan:**
- Grate the parmesan, mix the chopped dried tomatoes and the bacon.
- Sprinkle with oregano.
- Arrange on baking paper and bake at 180° C until golden brown.

## RECIPES VII

# LEMON FLOATING ISLAND WITH AIR OF COCONUT LIQUEUR

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### INGREDIENTS

### QUANTITY

### METHOD

Onion	1 unit
Garlic clove	1 unit
Varied mushroom	200 gr
Cooking cream	200 ml
Butter	15 gr
White wine	1 dl
Hard bread	50 gr
Chopped ham powder	25 gr
Rosemary sprig	C/s
White base	c/s
Parmesan	100gr
Dried tomatoes	25gr
Chopped bacon	20gr
Oregano	c/s

- Make a syrup with a strong strand. 113°C.
- Meanwhile beat the egg whites to the point of snow.
- Add the syrup to the wire while stirring until the meringue is cold.
- Undo butter with chocolate topping in a saucepan.
- Add the icing sugar and beat until you get a cream, add the yolks one by one.
- Beat the egg whites until stiff with sugar.
- Add the egg whites to the cream made with butter, chocolate and yolks
- Add the flour in two parts with enveloping movements with the help of a spatula.
- Jack the mould and arrange the shake. Cook at 180° C for 35-40 minutes.
- Mix the liquor with the lecithin and turbine.

## RECIPE VIII

### VEGETABLES IN TEXTURES

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INGREDIENTS	QUANTITY	METHOD
Artichokes	2 unit	· Cut into thin slices of artichokes and fry to make chips.
Green beans	50gr	· Cook the beans and mash to make a cream.
Carrots	2 unit	· Cook the carrot and make a gel by adding xanthan gum.
Potatoes	1 unit	· Cook the potato and mash add cream and a little of the cooking water.
Onion	1 unit	· Arrange in the siphon previously passed through a strainer and put the loads to make a potato foam.
Green peas	100gr	· Cook the zucchini together with the pea and mash with a little of the cooking water.
Zucchini	1 unit	· Add Agar Agar to make a gelatine.
Tomato	1 unit	· With tomato water. Grate the tomatoes and let them strain through a cloth sieve to make a tomato water.

## RECIPE IX

### COFFEE MOUSE WITH HONEY GEL

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INGREDIENTS	QUANTITY	METHOD
Cream	250 ml	<ul style="list-style-type: none"><li>· We put the cream and honey in a saucepan, and bring it to boil with the soluble coffee to infuse.</li><li>· When we strain and set aside. We mix the yolks with the sugar with the help of a rod. We add the cream little by little.</li><li>· Infused without stopping to move so that it does not set. We take it to the fire and we stir until it thickens.</li><li>· Mix water, honey and xanthan gum and cook until a gel is made.</li></ul>
Honey	50 grams	
Sugar	30 grams	
Yolks	3 units	
Soluble coffee	5-8 grams	
<b>Honey gel</b>		
Honey	100 grams	
Water	100 grams	
Xantana gum	1 gram	

## RECIPE X

# TOMATO CANNELLONI WITH MASCARPONE CREAM AND OLIVE OIL SPAGHETTI INFUSED WITH BASIL

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INGREDIENTS	QUANTITY	METHOD
Tomato based sauce	400 grams	<ul style="list-style-type: none"><li>· Heat the tomato sauce and add the elastic and bring to a boil.</li><li>· Stretch on a baking sheet in the desired thickness. Cool.</li><li>· Mix the mascarpone cheese with the cream the chopped nuts until you get a cream.</li><li>· Infuse the oil with the fresh basil without reaching 80°C. Cool and strain.</li><li>· Add the agar Agar and bring to boil. Introduce in the probe to make the spaghetti.</li></ul>
Elastic	25 grams	
mascarpone	300 grams	
Nata	75ml	
Walnuts	40gr	
Olive oil	150ml	
Fresh basil	10 grams	
Agar Agar	1.5grams	



## RECIPES XI

### LIQUID CROQUETTES

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INGREDIENTS	QUANTITY	METHOD
Milk	500ml	<ul style="list-style-type: none"><li>· Grate the onion and poach with the butter. Add the chopped ham and give it a spin.</li><li>· Add the flour and make a roux</li><li>· Add little by little the milk and stir until it takes body.</li><li>· Add the previously hydrated gelatine sheets.</li><li>· Introduce in mould and freeze.</li><li>· Batter with flour, egg and bread crumbs.</li></ul>
Onion	80 grams	
Serrano ham	80 grams	
Gelatine	6 sheets	
Flour	15 grams	
Butter	15 grams	
Grated bread	100 grams	
Flour	100 grams	
Egg	2 units	

## RECIPES XII

### CUPCAKE WITH RASPBERRY GELLING

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INGREDIENTS	QUANTITY	METHOD
Eggs	4 units	<ul style="list-style-type: none"><li>· Beat the eggs with the sugar.</li><li>· Add lemon zest.</li><li>· Add oil and milk, mix well.</li><li>· Incorporate the flour and the impeller.</li><li>· Let stand 1 hour approximately.</li><li>· Make a coulis with the raspberries, add the Gellan gum and boil.</li><li>· Arrange a little cupcake dough and fill with the raspberry jelly.</li><li>· Fill the capsules and bake for 15 minutes at approximately 210°C.</li></ul>
Sugar	200 grams	
Milk	50 grams	
Oil	175 gramS	
Flour	250 grams	
Impeller	7 grams	
Lemon zest	Lemon zest	
Raspberries	100 grams	
Gellan gum	1 gram	

## RECIPE XIII

### FRUIT JELLY BEANS

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<b>INGREDIENTS</b>	<b>QUANTITY</b>
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Fruit juice	c/s
Agar agar	c/s

#### **METHOD**

- Make natural fruit juices, add the agar agar and bring it to a boil.
- Put in moulds and let it cool.

## RECIPES XIV

### SEPIA BURGER WITH POTATO PAPER

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INGREDIENTS	QUANTITY	METHOD
Cuttlefish or squid	500 grams	<ul style="list-style-type: none"><li>· Chop the cuttlefish.</li><li>· Make an oil with garlic.</li><li>· Chop the carrot and onion and poach.</li><li>· Add to cuttlefish and garlic oil. add the gelburguer, let it rest and give it the form.</li><li>· Arrange on film and give it a tube shape.</li><li>· Cut into a hamburger and grind.</li><li>· Grate the potato and remove the starch.</li><li>· Paint in the pan until you get a paper.</li><li>· Then fry in plenty of oil.</li></ul>
Garlic	2 units	
Oil	c/s	
Carrots	80 grams	
Onion	80 grams	
Gel burger	7 grams	
Potatoes	3 units	



