

# UCF-PROSTART TEACHERS WORKSHOP MODERNIST TECHNIQUES

MODERNIST  
TECHNIQUES

RECIPES



UCF

**Rosen College of  
Hospitality Management**

UNIVERSITY OF CENTRAL FLORIDA



SMOKING GUN

## What is Modernist Cuisine?

What exactly is modernist cuisine?

In short, it's a buzzword—the latest term used to describe an innovative and avant garde style of cooking. First popularized by Ferran Adria (the "foam guy") at his restaurant El Bulli.

Beyond the foam, sous-vide and reverse spherification, modernist cooking is really about **examining ingredients** and asking, "**What makes a carrot good?**" and "**How I make the good part of a carrot better?**" Technology has enabled us to find the precise time/temperature ratio that produces a carrot more tender, sweet and delicious.

VACUUM  
COMPRESSING

SIPHONS

SOUS VIDE



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## VACUUM COMPRESSING

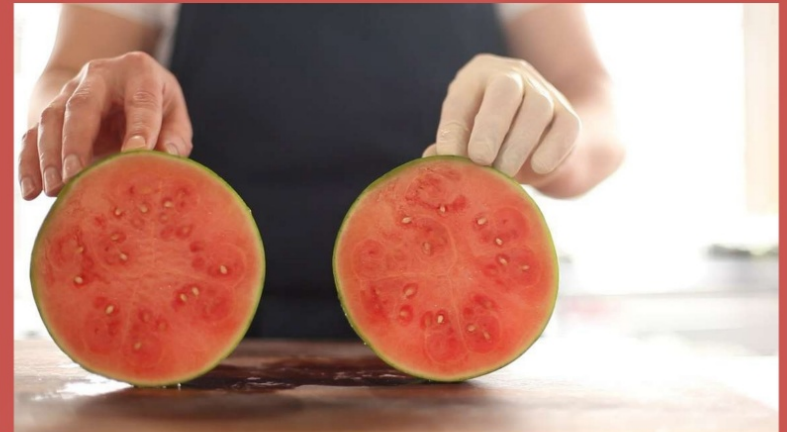
This technique exploits the ability of a vacuum chamber to reduce surrounding pressure, which causes air and moisture within the plant tissue to rapidly expand and rupture structures within the food. When surrounding pressure is restored to a normal level, the labyrinth of air-filled spaces collapse. As a result, light tends to pass through the food rather than being scattered and diffused, which is why vacuum-compressed plant foods appear translucent.

PREPARE THE FRUIT  
OR  
VEGETABLE



## PREPARE THE FRUIT OR VEGETABLE

1. When vacuum compressing plant foods, it's helpful to expose as much surface area as possible. Relatively fragile ingredients can be cut thick and they will still fully compress. But for tough or durable ingredients, such as an apple or a pear, leaving them too thick will prevent the tissue far beneath the surface from being compressed

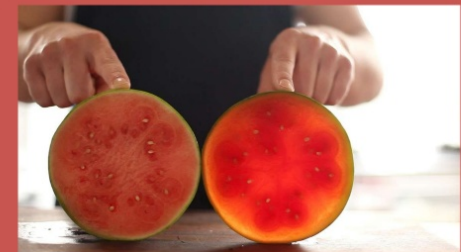


# VACUUM PACKAGE THE FRUIT OR VEGETABLE

This technique requires a chamber-style vacuum sealer. During the vacuum sealing cycle, the surrounding pressure falls to the point where water within the plant tissue begins to boil, and it's the expanding water vapor that does most of the work of rupturing structures within the plant tissue. The lower the pressure goes, and the longer the vacuum cycle, the greater the damage and, thus, the better the final effect.

Edge-style vacuum sealers don't reduce surrounding atmospheric pressure. Thus, structures are never ruptured inside the plant tissue, and compression cannot happen.

The flexible packaging is essential too. Once the vacuum cycle is complete, air must not be allowed back into the ruptured plant tissue, otherwise it won't collapse. A sous vide bag provides a flexible skin that keeps air out, but allows the weight of the atmosphere to press down on the damaged plant tissue so that it collapses.





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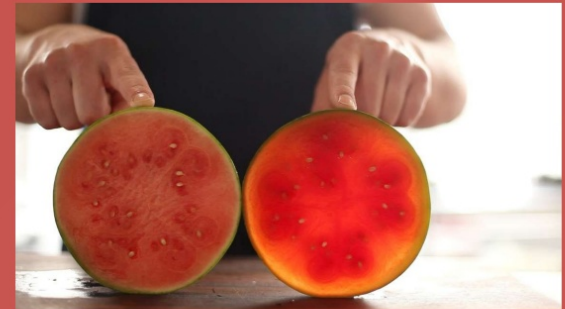
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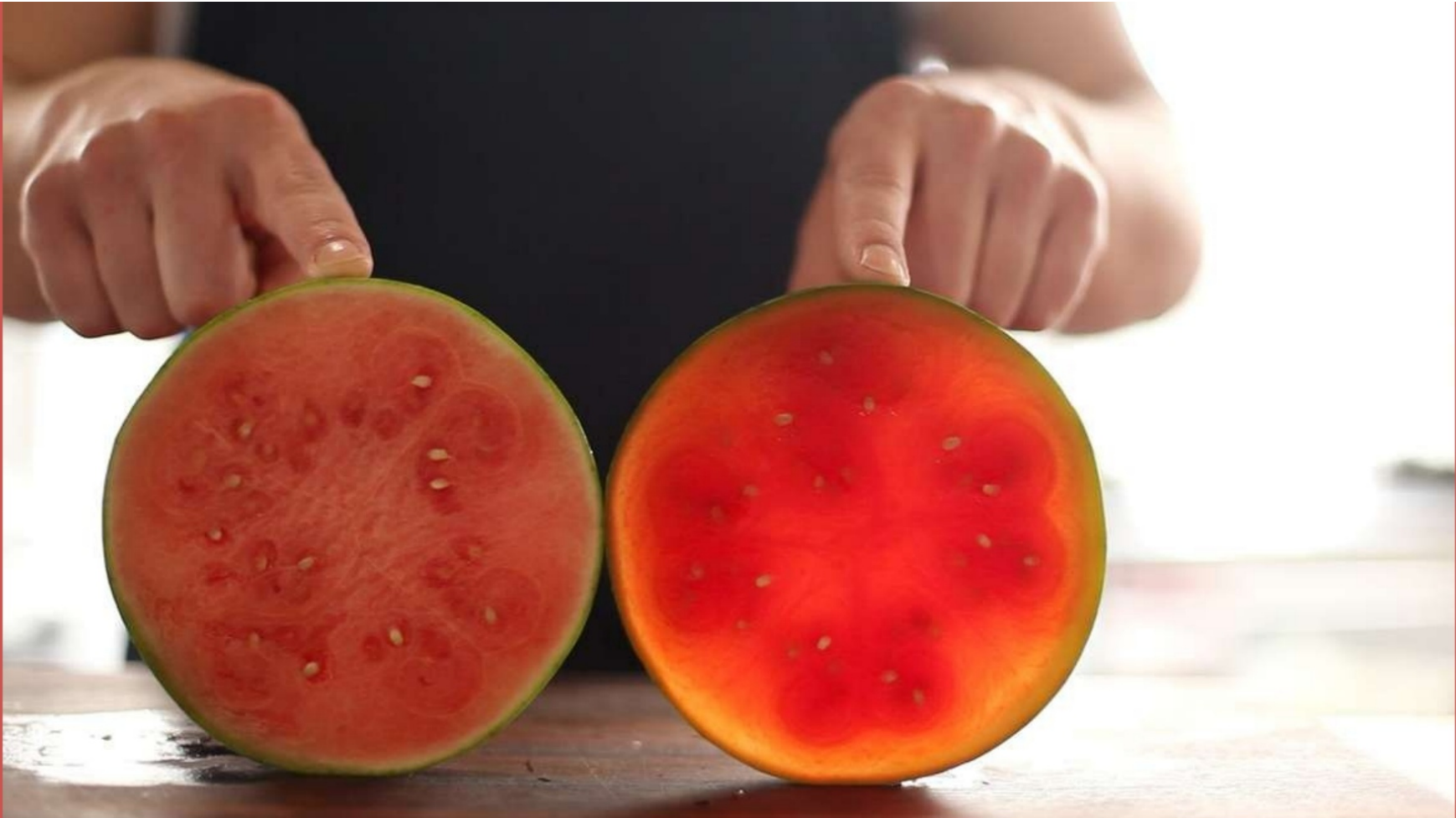


## INSTANT RESULTS

Compression occurs as quickly as air rushes back into the chamber sealer. If you watch closely, you can watch a compressed fruit or vegetable turn translucent. Here, you can see the difference between uncompressed (left) and compressed (right) slices of watermelon.







## REPEAT AS REQUIRED

Sometimes, for a more durable food like pineapple, you will need to cut the bag open and repeat the process more than once to get a uniform result. You can judge how completely the fruit or vegetable has been compressed by how translucent it appears.









## VACUUM COMPRESSING

This technique exploits the ability of a vacuum chamber to reduce surrounding pressure, which causes air and moisture within the plant tissue to rapidly expand and rupture structures within the food. When surrounding pressure is restored to a normal level, the labyrinth of air-filled spaces collapse. As a result, light tends to pass through the food rather than being scattered and diffused, which is why vacuum-compressed plant foods appear translucent.

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# SOUS VIDE

Sous-vide is physically practical as the technique utilizes water as a medium of applying a precise temperature to the product; water is the best conductor of heat. In order to do so, one needs to protect the product so that it does not lose its delicate qualities and that is why a food-grade plastic pouch is utilized. A vacuum is applied to the product in the bag so that air does not get trapped between the bag and the product, which could prevent heat from reaching the product during the cooking process.

# ADVANTAGES

For both meat and vegetables, it helps to:

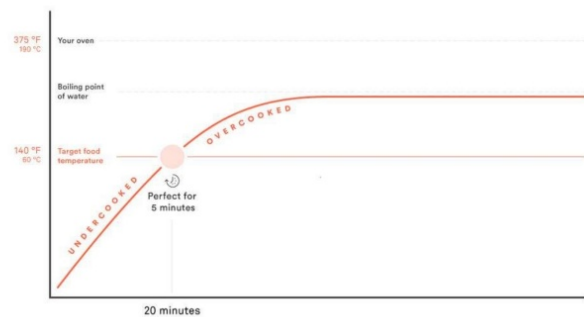
- Enhance flavor
- Retain color
- Maintain, improve tenderness
- Retain natural juices



# TRADITIONAL TECHNIQUES VS. SOUS VIDE

## Traditional Cooking Techniques

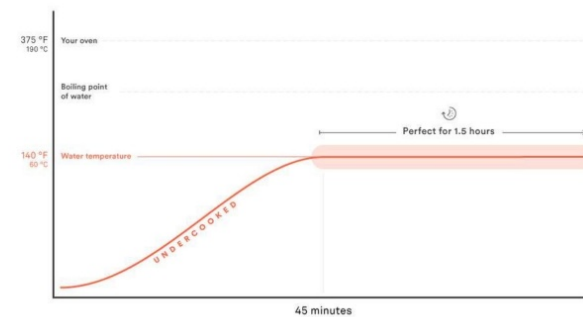
Food remains perfectly cooked only for a small window of time.



With traditional techniques, there's a narrow window of time in which your food is prepared just the way you like it—get distracted for a few minutes, and you've missed your opportunity to enjoy a perfectly prepared steak or pork chop. Such a bummer.

## Sous Vide Cooking

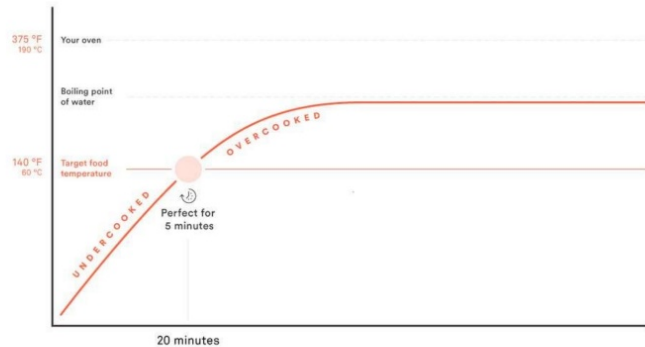
The food never gets hotter than the water, so it remains at the target temperature until you are ready to eat.



Sous Vide: Now check out this sous vide graph. As you can see, your food can remain in a precisely heated pot of water for more than an hour, and still emerge perfectly cooked. Guests call up to tell you they're stuck in traffic? Worry not, good sir or madam, your dinner party will still go off without a hitch.

## Traditional Cooking Techniques

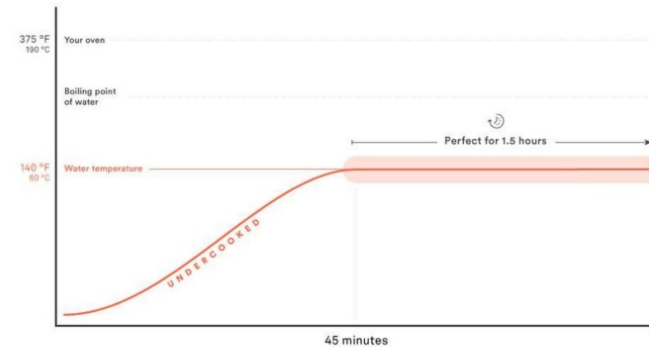
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## Sous Vide Cooking

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# WHY? CONSISTENCY

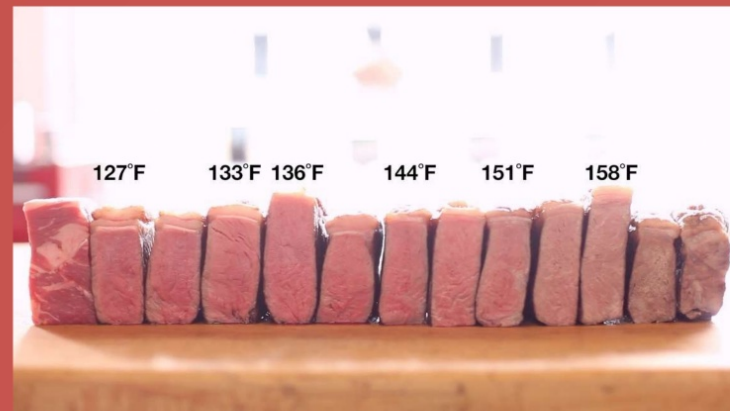
Because sous vide affords precise temperature control, results can be repeated with ease

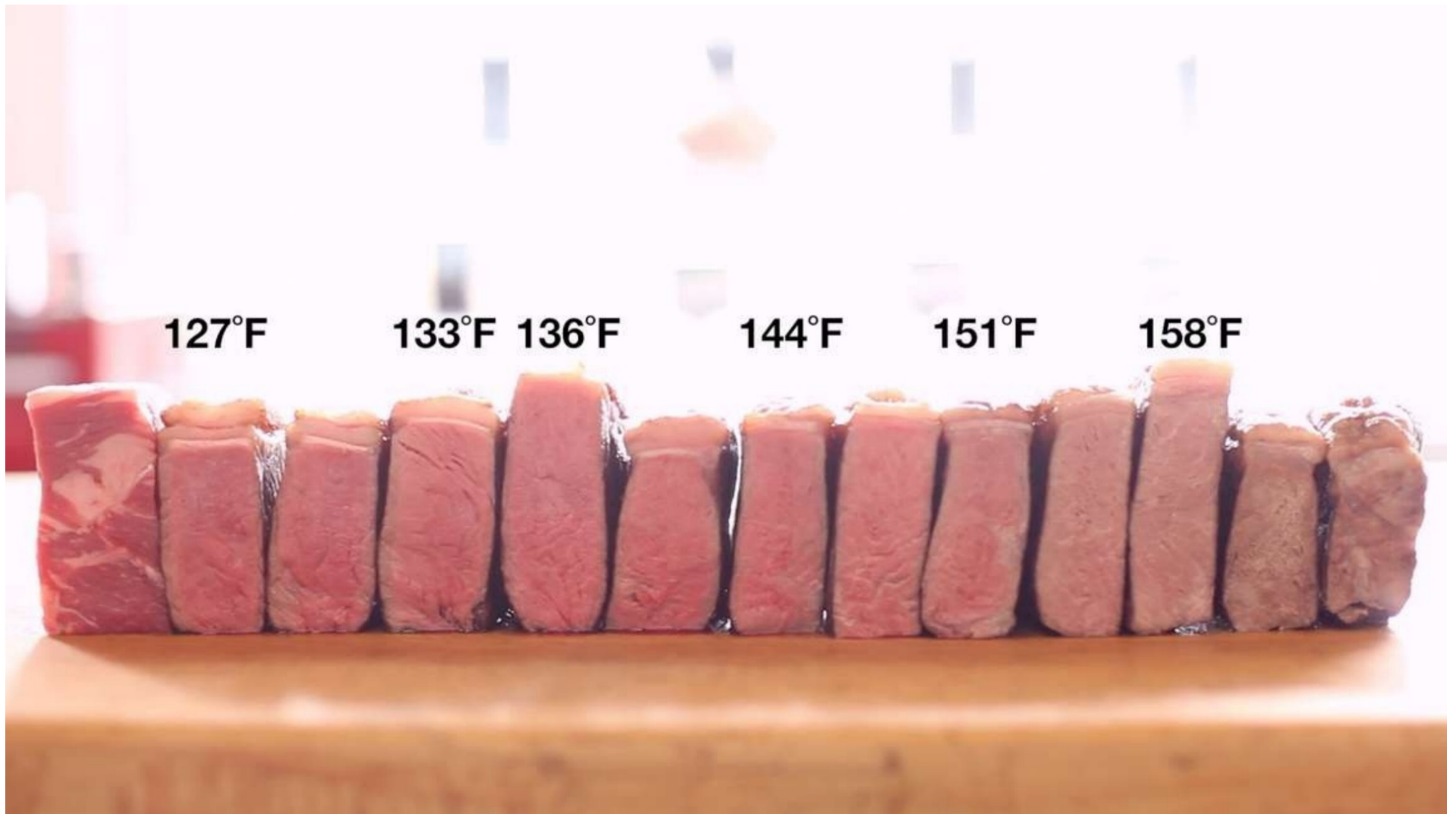




# TEMPERATURE CONTROL

With traditional cooking techniques, temperature control is tricky. Sous vide makes it possible to be very specific about the degree of doneness that you prefer.





# AVOID OVERCOOKING

Sous vide cooking food at the temperature you've selected, and waiting until the center of the food reaches equilibrium with that temperature avoids another common source of inconsistency: having the food overcook after you've stopped the cooking. This happens because with other cooking techniques, the surface of the food is nearly always much hotter than the core temperature, and thus, it's critical to time things correctly and allow for the inevitable cooling of the surface and increasing temperature at the center.







## PORTION CONTROL

Consistency comes in other forms too: portion size, product quality, healthfulness, and food hygiene—all-important whether you're cooking in a busy restaurant or at home for your family and friends.









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SOUS VIDE

# SIPHONS

High-end whipping siphons have three main applications: foaming, carbonating, and rapid infusion. And you can use rapid infusion to quickly create foods that traditionally take a long time to make. Think kimchi and other pickled vegetables, cold-brewed coffee, even flavorful bitters for your cocktails.



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# SMOKING GUN

You can add smoke to anything, but some foods are better than others: This technique works best on foods that are able to retain moisture or fat on the surface. So, while raw or cooked meats will hold smoke, it's best to add smoke to cooked vegetables. (Example: root vegetables that have been tossed in oil before roasting, or broccoli that has been steamed.)













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# COMPRESSED WATERMELON & MARINATE CHERRY TOMATOES



## Compressed Watermelon

Yield:	Ingredients	Method	Quantity
	Watermelon, sliced 1", seeds removed.	Per	

### Directions

1. Place sliced and seeded watermelon into vacuum bag.
2. Place vacuum bag into chamber vacuum sealer and put a full, 100% vacuum on the fruit.
3. If using immediately, remove from vacuum bag and serve.
4. If saving for a later time, the compressed fruit will remain compressed for a maximum of two days. After two days, juices will start to seep from the fruit, surrounding the fruit in the vacuum pouch. The fruit is usable, but less desirable.



## Marinate cherry tomatoes

Yield:	Ingredients	Method	Quantity
	Tomatoes, Grape	1lb	
	Water	1oz	
	Basil, chopped	2oz	
	sugar	5oz	

### Directions

1. Peel the tomatoes.
2. Combine the basil, water and sugar in a sauce pan and bring to simmer, stirring to dissolve the sugar.
3. Chill this simple syrup over ice bath, whisking until cold.
4. Place the tomatoes in a large bag and strain in enough simple syrup to cover them. Vacuum-pack on high, then refrigerate for at least 3 hours, or overnight.



### Compressed Watermelon

[illegible]

### Directions

1. Place sliced and seeded watermelon into vacuum bag.
2. Place vacuum bag into chamber vacuum sealer and pull a full, 100% vacuum on the fruit.
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### Marinate cherry tomatoes

Yield:	Ingredients	Method:
		Quantity
Tomatoes, Grape		10oz
Water		5oz
Basil, chopped		2oz
sugar		5oz

### Directions

1. Peel the tomatoes.
2. Combine the basil, water and sugar in a sauce pan and bring to simmer, stirring to dissolve the sugar.
3. Chill this simple syrup over ice bath, whisking until cold.
4. Place the tomatoes in a large bag and strain in enough simple syrup to cover them. Vacuum-pack on high, then refrigerate for at least 1 hour, or overnight.







# PIÑA BORRACHA

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University of Central Florida

## Piña Borracha

Yield:	Ingredients	Method:
		Quantity
	Pineapple, sliced 1", core removed	8 oz
	Dark Rum	2oz
	Water	2oz
	White sugar	1oz

### Directions

1. Place sliced pineapple, Rum and sugar into vacuum bag.
2. Place vacuum bag into chamber vacuum sealer and put a full, 100% vacuum on the fruit.
3. If using immediately, remove from vacuum bag and serve.
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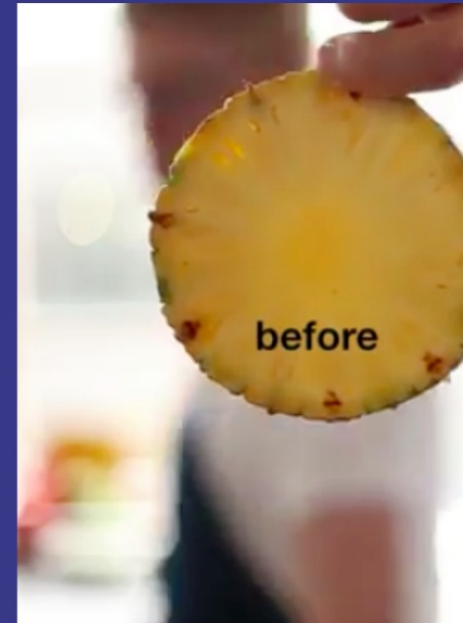


## Piña Borracha

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# RACK OF LAMB WITH HONEY ALLIOLI | ALLIOLLI

Rosen College of  
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## Rack of lamb with honey Allioli

Yield:	Ingredients	Method:
		Quantity
Rack of Lamb		1
Rosemary		1 sprig
Allioli * see recipe		1/2 cup
Honey		2 tbsp
Salt to taste		

### Directions

1. Set the Sous Vide to 134 degrees Fahrenheit.
2. Using a sharp knife, remove the fat from the rack of the so the bones are clean but still attached to the loin.
3. Brush the sprigs of Rosemary into a few pieces and sprinkle them over the lamb. Brush the lamb with a little bit of olive oil, add salt and pepper.
4. Place the lamb into the vacuum bag.
5. Place vacuum bag into chamber vacuum sealer and pull a full, 100% vacuum.
6. Place the bags in the water bath and set the timer for 2 1/2 hours, sous vide for one hour.
7. Meanwhile, combine the allioli and the honey in a bowl. Use of fork to mix them together thoroughly.
8. Remove the lamb from the bag and placed it on a paper towel lined plate. Pat it dry very carefully on both sides.
9. Place the rack of the lamb in the grill and sear for 1 minute on each side to brown it.
10. Cut the rack into pieces along the bones.
11. Place a spoonful of the honey allioli on each plate, and top with a piece of lamb. Sprinkle with salt to taste and serve.

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## Allioli

Yield: 1 cup	Ingredients	Method:
		Quantity
Egg		1ea
Olive oil, extra virgin		1 cup
Garlic clove, peeled		1
Sherry vinegar		1tsp
Salt		To taste

### Directions

1. Break the egg into a small mixing bowl.
2. Add 2 tbsp of the olive oil, the garlic clove, and the vinegar.
3. Using a hand-held electric mixer, mix at hi speed until the garlic is fully pure into a loose paste.
4. Then little by little, add the remaining olive oil as you continue blending at high speed.
5. If the mixture appears too thick when you begin adding the oil, add 1 tsp water to loosen the sauce.
6. Continue adding the oil and blending until you have a rich, creamy allioli.
7. The sauce will be a lovely yellow color.
8. Add salt to taste.






## Allioli

[illegible]

### Directions

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6. Continue adding the oil and blending until you have a rich, creamy aioli.
7. The sauce will be a lovely yellow color.
8. Add salt to taste.

# CROQUETAS DE POLLO- CHICKEN FRITTERS

 <b>Rosen College of</b> <b>Hospitality Management</b> <small>ROSEN COLLEGE OF HOSPITALITY MANAGEMENT</small>		
<b>“Croquetas de Pollo” Chicken Fritters</b>		
Yield:36 fritters	Ingredients	Method: Quantity
	Butter	8 tbsp
	Onion white, finely chopped	1/2 cup
	All-purpose flour	2 1/2 cups
	Milk	4 cups
	Chicken, balled shredded	12 oz
	Salt	1/2 tsp
	Nutmeg	1 pinch
	Eggs large, beaten	2oz
	Bread crumbs	1 cup

**Directions.**

1. Heat the butter in a medium sauce pan over medium flame. Add the onions and cook until they are translucent, 5 minutes.
2. Add one and 1/2 cup of the flour and mix energetically. Cook for five minutes to make sure the flour is cooked through. It should start to get a golden color.
3. Pour the milk in the flour mixture and cook, stirring continuously, for about 2 minutes, until you have a thick bubble.
4. Add the cheese, salt and pepper to the salt and the nutmeg. Cook for another two minutes. You should now have a thick mixture that you can mold in your hands. Carefully cup up a bit and try to bullet with your hand. It should be too sticky. If it does stick to your hand, cook a little bit longer.
5. Spread the mixture on a cookie sheet or a sheet pan and let it cool to room temperature.
6. Take a spoonful of the cooled bubble mixture and roll it in your hands to make a small sphere the size of a wine cork.
7. Roll the sphere on the rolling pin. Cut off the end of Cup flour, then in the egg, and then in the breadcrumbs. Repeat with all the croquettes.
8. In a small deep frying pan or oil to the 375 degrees. Add the croquettes in small batches, making sure they are covered completely in the oil. Fry until they have a nice golden color, about 3-4 minutes and transfer them to a paper towel to drain. Repeat with all the croquettes, and serve hot.



### “Croquetas de Pollo” Chicken Fritters

Yield: 36 fritters		Method:
Ingredients		Quantity
Butter		8 tbsp
Onion white, finely chopped		½ cup
All-purpose flour		2 ½ cups
Milk		4 cups
Chicken, boiled shredded		12 oz
Salt		½ tsp
Nutmeg		1 pinch
Eggs large, beaten		2ea
Bread crumbs		1 cup

#### Directions.

1. Heat the butter in a medium sauté pan over medium flame. Add the onions and cook until they are translucent, 5 minutes.
2. Add one and 1/2 cup of the flour and mix energetically. Cook for five minutes to make sure the flour is cooked through; it should start to take on a golden color.
3. Pour the milk into the flour mixture and cook, stirring continuously, for about 2 minutes, until you have a thick béchamel.
4. Add the chicken and sprinkle in the salt and the nutmeg. Cook for another two minutes. You shall now have a thick mixture that you can mold in your hands. Carefully pick up a bit and try to bullet with your hands. It shouldn't be too sticky. It does stick to your hand, cook a little bit longer.
5. Spread the mixture on a cookie sheet or a sheet pan and let it cool to room temperature.
6. Take a spoonful of the cooled béchamel mixture and roll it in your hands to make a small cylinder the size of a wine cork.
7. Roll the cylinder in the remaining One Cup of flour, then in the eggs, and then in the breadcrumbs. Repeat with all the croquettes.
8. In that small deep-frying pan hit the oil to 375 degrees. Add the croquettes in small batches, making sure they are covered completely in the oil. Fry until they have a nice golden color, about one minute; then transfer them to a paper towels to drain. Repeat with all the croquettes, and serve hot





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