



High School Culinary Challenge



Northern Alberta Institute of Technology
February 25, 2023



High School Culinary Challenge

Location: NAIT Culinary Kitchens
South kitchen labs beside the Common Market

Date: February 25, 2023

Start Time: 6:30 am arrival (group A)
11:30 am arrival (group B)

Duration: 7:00 - 11:00 am (group A)
12:00 - 4:00 pm (group B)

Purpose of Challenge:

To promote professionalism, team building and the pursuit of culinary excellence.

Overview:

Each three-member team of high school students, using provided recipes, will prepare four servings of a three-course meal (soup, entrée and dessert) to an advanced level of the CTS Foods Program. Two portions of each course are to be plated and presented to judges - one portion is for tasting, one portion is for presentation. The remaining two portions are reserved. All food is to be presented on provided plates. Competitors are free to consult reference books of their choice.

Kitchen stations will be drawn and assigned by competition organizers. Food items listed as par stock will be made available to all participants and held in a common area. Judges reserve the quantities. Carefully note the presentation times for all courses.

All competitors are responsible for the complete cleanup of their work areas, stoves, sinks, floors and surrounding areas before leaving the competition site. Points will be deducted for competitors who do not comply.

Competition Menu

Minestrone Soup
Stuffed Pork Tenderloin, Spaetzle, Glazed Carrots Batonnet
Caramelia Chocolate Mousse with Raspberry Fluid Gel, Tuile and Chocolate
Garnish

High School Culinary Challenge

PRESENTATION TIMES:

General times are provided and are subject to change to meet competition logistics.

<i>Appetizer:</i>	10:00 - 10:05 am	(group A)
	3:00 - 3:05 pm	(group B)
<i>Main Course:</i>	10:30 - 10:35 am	(group A)
	3:30 - 3:35 pm	(group B)
<i>Dessert:</i>	11:00 - 11:05 am	(group A)
	4:00 - 4:05 pm	(group B)

Labs are to be completely cleaned or marks will be deducted.

CLOTHING REQUIREMENTS:

Competitors will be professionally attired in a white chef jacket, checked or black pants, apron, and hairnet as required. Chef hats will be provided and must be worn by all competitors. Appropriate kitchen shoes (closed toes, non-skid soles, and leather-style surface) ***No athletic or running shoes are allowed.***

EQUIPMENT AND MATERIALS:

French knife, paring knife, vegetable peeler, French whip, wooden spoon, food containers, meat mallet, piping bag, tips, measuring spoons, hand mixer, tool box, and any other small tools required. NAIT will provide the pots, pans and bowls. ***Competitors must bring their own small tools and knife kits.***

COOKING TERMINOLOGY:

- Batonnet – 1/4 inch by 1/4 inch by 3 inches (6mm x 6mm x 76mm)
- Small dice – 1/4 inch by 1/4 inch by 1/4 inch (6mm x 6mm x 6mm)
- Medium dice – 1/2 inch by 1/2 inch by 1/2 inch (12mm x 12mm x 12mm)
- Reduce – to cook down to desired consistency
- t – teaspoon – 5 ml
- T – tablespoon – 15 ml

High School Culinary Challenge



(a) Tourné: 2 in. long \times $\frac{3}{4}$ in. diameter, with 7 sides, and flat-ended (5 cm \times 2 cm).



(b) Large dice: $\frac{3}{4}$ in. \times $\frac{3}{4}$ in. \times $\frac{3}{4}$ in. (2 cm \times 2 cm \times 2 cm).



(c) Medium dice: $\frac{1}{2}$ in. \times $\frac{1}{2}$ in. \times $\frac{1}{2}$ in. (12 mm \times 12 mm \times 12 mm).



(d) Small dice: $\frac{1}{4}$ in. \times $\frac{1}{4}$ in. \times $\frac{1}{4}$ in. (6 mm \times 6 mm \times 6 mm).



(e) Brunoise (broon-wahz): $\frac{1}{8}$ in. \times $\frac{1}{8}$ in. \times $\frac{1}{8}$ in. (3 mm \times 3 mm \times 3 mm).



(f) Fine brunoise: $\frac{1}{16}$ in. \times $\frac{1}{16}$ in. \times $\frac{1}{16}$ in. (1.5 mm \times 1.5 mm \times 1.5 mm).



(g) Rondelle: round or bias-rond cuts, varied diameter or thickness.



(h) Paysanne: $\frac{1}{2}$ in. \times $\frac{1}{2}$ in. \times $\frac{1}{8}$ in. (12 mm \times 12 mm \times 3 mm; round, square, or rectangular).



(i) Lozenge: $\frac{1}{2}$ in. \times $\frac{1}{2}$ in. \times $\frac{1}{8}$ in. (12 mm \times 12 mm \times 3 mm; diamond-shape).



(j) Fermière: irregular shape, varied diameter or thickness.



(k) Batonnet: $\frac{1}{4}$ in. \times $\frac{1}{4}$ in. \times 2 $\frac{1}{2}$ -3 in. (6 mm \times 6 mm \times 6-7.5 cm).



(l) Julienne (or allumette potatoes): $\frac{1}{8}$ in. \times $\frac{1}{8}$ in. \times 2 $\frac{1}{2}$ in. (3 mm \times 3 mm \times 6 cm).



(m) Fine julienne: 2 in. long \times $\frac{1}{16}$ in. \times $\frac{1}{16}$ in. (1.5 mm \times 1.5 mm \times 5 cm).

High School Culinary Challenge

SAFETY REQUIREMENTS:

- Oven mitts, white terry cloth or t-towel
- Non-slip leather-style shoes
- No rings, watches or personal jewelry
- Loose hair completely restrained
- Competitors are required to observe all safety standards during the competition.

RELATED CAREER AND TECHNOLOGY STUDY MODULES:

- Module FOD 1020 Baking Basics
- Module FOD 2070 Stocks, Soups and Sauces
- Module FOD 2080 Vegetables Fruits and Grains
- Module FOD 2090 Creative Cold Foods
- Module FOD 2100 Basic Meat Cookery
- Module FOD 2110 Fish
- Module FOD 2150 Food Safety & Sanitation
- Module FOD 3050 Advanced Soups and Sauces
- Module FOD 3060 Food Presentation
- Module FOD 3080 Advanced Meat Cookery

JUDGING CRITERIA:

Includes:

- adherence to safety and sanitation rules as contained in the sanitation code
- interpretation skills of scope documents and provided recipes
- general cooking skills, work habits, cooking techniques, development of flavors, degrees of doneness, texture, temperature controls, presentation skills and effective utilization of food products
- cooperation with others in kitchen, effective team participation

High School Culinary Challenge

Par Stock

Vegetables	Protein	Grocery	Herbs
Onions		Olive Oil	Basil
Celery		Canned Tomatoes	Flat-leaf parsley
Carrots		Salt	Rosemary
Garlic		Pepper	Thyme
Green Cabbage		Breadcrumbs	
Zucchini		Dried currants	
Carrots		Cayenne pepper	
		Flour	
		Tomato paste	
		Cannellini Beans	
		Green peppercorns	
		Nutmeg	
		White Pepper	
		Sugar, White, Gold, Brown	
		Caramelia Milk Chocolate, White chocolate, Dark chocolate, Milk Chocolate	
		Frozen Raspberries	
		Corn Starch	
Dairy	Other	Powdered Sugar	
Eggs	Chicken Stock		
Butter, unsalted	Beef stock	Agar Powder	
Whipping cream, 32%			
Parmesan Cheese			
Milk, 3.25%			

High School Culinary Challenge

MARKING CRITERIA:

15% Sanitation	Professional attire, hats, aprons, shoes Personal hygiene, hair restrained Cutting board and utensil sanitation Correct food handling and storage Cleanup - entire work area and adjacent areas/sinks and stoves cleaned and sanitized (5-mark penalty if incomplete) other _____
5% Timing	All products presented at noted time 5-minute period of grace – any later results in zero
5% Temperature	Hot food served hot on heated plates Cold foods served cold on chilled plates
25% Organization	Follows worksheet, follows timetable Professional use of knives, tools and equipment Station maintained neat, clean and orderly Demonstrates safe working practices Effective food utilization / wastage Accuracy of knife skills Correct cooking methods Team work other _____
15% Presentation	Portion size / balance Effective color / contrast Clean plates, neatness Technical skills (slicing, dicing, turning etc.) other _____
35% Taste	Correct textures of food, consistency of sauces Degree of doneness, not over/undercooked Balanced taste and seasonings – enhanced natural flavors Not bland, under/over seasoned Not excessively salty, sour, sweet or bitter Not burnt, metallic tasting or aftertaste

High School Culinary Challenge

RECIPES

Students a **MUST ADHERE** to specified portions and ingredients to ensure consistent results and equitable judging.

Minestrone Soup

Portion size: 8 fl oz

Olive Oil	15ml
Onions, Small diced	125g
Celery, Small diced	60g
Carrots, Small diced	60g
Garlic, Chopped	5ml
Green Cabbage, Shredded	60g
Zucchini, Medium Dice	60g
Canned Tomatoes, crushed	125g
Chicken Stock	1250ml
Basil	5ml
Macaroni	45g
Cannellini Beans, drained	185g
Chopped Parsley	15ml
Salt	to taste
Pepper	to taste
Parmesan Cheese	as needed to garnish

1. Heat the oil in a heavy pot over medium heat.
2. Add the onions, celery, carrots, and garlic. Sweat them in the oil until almost tender. Do not brown.
3. Add the cabbage and zucchini. Stir to mix the vegetables. Continue to sweat another 5 minutes.
4. Add the tomatoes, stock, and basil. Bring to a boil, reduce heat, and simmer until the vegetables are almost cooked. (Do not overcook. The soup will continue to cook when the pasta is added.)
5. Add the pasta and continue to simmer the soup until the pasta is cooked. (Alternatively, cook pasta separately and add to the soup just before serving.)
6. Add the beans and return soup to a boil.
7. Add the parsley. Season to taste with salt and pepper.
8. Just before service, top with the parmesan cheese.

High School Culinary Challenge

Stuffed Pork Tenderloin

2 - 500 - 600 grams	Pork tenderloins
1 bunch	Flat-leaf parsley, chopped
160 ml	Bread crumbs
120 ml	Dried currants
3	Garlic cloves, minced
1 sprigs	Rosemary, fresh, chopped
2	Eggs
60 ml	Olive oil
10 ml	Salt
10 ml	Ground black pepper
1 pinch	Cayenne pepper
to taste	Salt and ground black pepper

1. Preheat oven to 350° degrees F
2. Remove the flap of meat at the wider end of the tenderloin and trim the last two inches off the narrow end of the tenderloin. Chop the trimmings and reserve.
3. Cut from one side of the tenderloin through the middle horizontally to within one-half inch of the other side. Open the two sides and spread them out like an open book. Cover the meat with plastic wrap and pound to about 1/2-inch thick. Roll up pounded tenderloin, cover with plastic wrap, and refrigerate to keep cold.
4. Mix the chopped pork trimmings (should resemble a course ground sausage), parsley, breadcrumbs, currants, garlic, rosemary, egg, olive oil, 10 ml salt, black pepper, and cayenne pepper together in a bowl with a fork until stuffing is well-combined.
5. Unroll tenderloin on work surface. Season lightly with salt and pepper. Spread stuffing over tenderloin, leaving a 2-inch border on one of the long-sides. Roll up the tenderloin, ending at the 2-inch border, tie meat with string to secure shape. Season the tenderloin all over with salt and black pepper.
6. Heat an oven-safe skillet over high heat until hot. Cook the tenderloin in a hot skillet until browned, 3 to 4 minutes per side.
7. Cook in the preheated oven until pork is slightly pink in the center, about 30 minutes. An instant-read thermometer inserted into the center should read at least 145°F (63°C). Transfer to a plate and let rest for 15 minutes before removing the twine and slicing.

High School Culinary Challenge

Notes

- Appearance – consistent browning, holds together when sliced.
- Flavor – All seasonings and flavoring ingredients must enhance each other; no predominant or overpowering flavors
- Cooked to 145°F minimum, slight pink is acceptable.
- Portion size – 130 - 140 grams cooked weight

Peppercorn Brown Sauce

120 grams total	Celery, onion, carrot - equal parts finely diced
50 grams	Butter or margarine
50 grams	Flour
15 ml	Tomato paste
1 litre	Beef stock
pinch	Thyme, ground
15 ml	Green peppercorns, chopped

1. Sauté the vegetables in butter or margarine until well caramelized.
2. Add the flour and cook to make brown roux.
3. Add the tomato paste, stir well and continue cooking.
4. Add the beef stock, whisk until smooth, and bring to a boil.
5. Reduce to simmer, add thyme and cook to reduce to 3/4 litre.
6. Strain the sauce and adjust the seasoning.
7. Add the green peppercorns and season to taste.

High School Culinary Challenge

Spaetzle

Eggs	3
Milk	190ml
Salt	1.5ml
Nutmeg	pinch
White Pepper	pinch
Flour	225 grams
Butter, for service	as needed

1. Beat the eggs in a bowl and add the milk, salt, nutmeg, and pepper.
2. Add the flour and beat until smooth. You should have a thick batter. If it is too thin, beat in a little more flour.
3. Let the batter stand 1 hour before cooking to relax the gluten.
4. Set a colander or perforated hotel pan (or a spaetzle machine, if available) over a large pot of boiling salted water. The colander should be high enough, so the steam doesn't cook the batter in the colander.
5. Place the batter in the colander and force it through the holes with a spoon or plastic scraper.
6. After the spaetzle float to the top of the water, let them simmer 1–2 minutes, then remove them with a skimmer. Cool quickly in cold water and drain well.
7. Cover and refrigerate until service.
8. Sauté in butter until hot. Serve

High School Culinary Challenge

Carrots Batonnet

Carrots, cut Batonnet	500 grams
Butter	60 grams
Sugar	30 ml
Chicken stock	180 ml
Salt & white pepper	to taste

1. In a medium sauté pan melt the butter and add carrots.
2. Cover pan and lightly cook the carrots.
3. Add the sugar, salt, pepper and stock. Cover and cook over low heat until the carrots are almost done.
4. Remove the cover and allow the liquid to reduce to a glaze. *

**If carrots are cooked before a glaze is formed, remove them with a slotted spoon and reduce liquid. Return carrots to pan to finish the process.*

High School Culinary Challenge

Milk Chocolate Mousse

Caramelia Milk Chocolate	300 grams
Butter	62.5grams
Egg Yolks	90grams
Egg Whites	125 grams
Sugar	40grams
Heavy Whipping Cream	125ml

1. Melt the chocolate in a bain-marie.
2. Remove from the heat and add the butter. Stir until the butter is melted, and completely mixed in.
3. Add the egg yolks, one at a time. Mix in each yolk completely before adding the next.
4. Beat the egg whites until they form soft peaks. Add the sugar and beat until the egg whites form stiff but moist peaks. Do not overbeat.
5. Fold the egg whites into the chocolate.
6. Whip the heavy cream until it forms soft peaks. Fold it into the chocolate mixture.
7. Portion the mouse for your desired plating. (Examples could be: spoon the mousse into serving dishes, use a pastry bag fitted with a star tube and pipe or place in a mold to set)
8. Chill the mousse well before serving.

High School Culinary Challenge

Raspberry Fluid Gel

Raspberry Puree

Frozen Raspberries 500 grams

Sugar 80 grams

Lemon Juice 15 grams

1. Thaw the raspberries. Push the raspberries through a strainer, removing all the seeds.
2. Combine the sugar, lemon juice and raspberry puree together.
3. Mix and set aside.

Fluid Gel

Raspberry Puree 250 grams

Sugar 40 grams

Lemon Juice 8 grams

Agar Powder 2 grams

4. Place the 250g of raspberry puree with the lemon juice in small pot.
5. Mix the sugar and agar together and whisk into the berry mixture.
6. Bring to a boil and cook for two minutes.
7. Pour into a shallow pan and place in the cooler to set.
8. Remove from the cooler and puree using a stand blender.
9. Adjust the consistency with any reserved puree.

High School Culinary Challenge

Tuile Batter

Butter –Soft	115 grams
Powdered Sugar	115 grams
Egg whites	4
Vanilla	¼ tsp
AP Flour	115 grams

1. Cream together the butter and sugar.
2. Add in the egg whites one at a time.
3. Mix until incorporated.
4. Add in the vanilla.
5. Mix in the flour.
6. Refrigerate for 1 hour.
7. Spread over top of a mold / design and bake at 375°F until golden brown.