



G4G CULINARY TRAINING



G4G 2.0 & Armed Forces Recipe Service (AFRS) Culinary Training

Session #1: Knife Skills & Cooking Vegetables

Total time: 90 minutes (Two 40-minute sessions with 5-minute intro and wrap-up)

Participants: 20 (2 groups)

Instructors: 2 (1 per group)

Class outline:

- ▶ 5 minutes: Introductions, review training objectives, and divide class into 2 groups
- ▶ 40 minutes: Training session
 - Group 1: Knife Skills (#1A)
 - Group 2: Cooking Vegetables (#1B)
- ▶ 40 minutes: Training session
 - Group 1: Cooking Vegetables (#1B)
 - Group 2: Knife Skills (#1A)
- ▶ 5 minutes: Wrap-up, questions & cleanup

Session #1A: Knife Skills

Overview: Teach (or review) basic knife skills to help cooks stay safe and complete meal prep efficiently.

Session length: 40 minutes

Session format: Group explanation, instructor demo & participant hands-on

Learning objectives:

By the end of the session, participants will be able to:

- ▶ Demonstrate how to safely hold a knife
- ▶ Know when to use the most common types of cuts in AFRS recipes
- ▶ Demonstrate the most commonly used cuts in AFRS recipes



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Culinary terms:

- ▶ The “claw”
- ▶ Rolling technique
- ▶ Dice
- ▶ Slice
- ▶ Mince
- ▶ Half-moon
- ▶ Julienne



Demo recipes for tasting: N/A

Ingredients needed for demo and hands-on training:

- ▶ 22 large yellow onions (1 per person)
- ▶ 22 carrots (1 per person)
- ▶ 22 cucumbers (1 per person)
- ▶ 11 bunches cilantro, fresh (½ bunch per person)
- ▶ 44 garlic cloves (2 per person)

Equipment needed for demo (1 per person for each session):

- ▶ 11 chef's knives
- ▶ 11 cutting boards
- ▶ 11 vegetable peelers
- ▶ 11 medium-sized mixing bowls

KITCHEN INSTRUCTIONS

Instructor prep: None

Instructor notes:

- ▶ Use cut-up vegetables from the hands-on demo for recipes or offer them as items at the Salad Bar, Omelet Bar, Sandwich Bar, and other specialty bars in your facility.

Instructor demo (15 minutes):

1. Review parts of a knife: handle, heel, blade, edge & tip.
2. Review how to hold a knife: Place thumb on blade and index finger on other side of blade.
3. Discuss cutting techniques.
 - Roll technique: Locomotive motion
 - Slicing technique: Up-and-down motion
 - Mincing technique: Pivot motion
4. Cut onion.
 - Demonstrate proper technique for slicing and dicing ¼” & ½” cuts.
 - Leave ends on onion.



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5. Cut carrot.
 - Demonstrate proper technique for julienne (thin strips) and dicing $\frac{1}{4}$ " & $\frac{1}{2}$ " cuts.
 - Create a flat surface on the item being cut, so it doesn't roll.
6. Cut cucumber.
 - Demonstrate technique for slicing, both diagonally and half-moon shapes.
7. Cut cilantro & garlic.
 - Cut garlic using same technique as onion.
 - Demonstrate different techniques for mincing garlic, cilantro, and other fresh herbs.

Instructor talking points:

- ▶ Dull knives are more dangerous than sharp ones because they require more pressure than needed for a sharp knife and result in more potential slippage.
- ▶ Place a wet paper towel under the cutting board to help it stay in place.
- ▶ Hold your thumb on the blade for most control.
- ▶ Curl the hand that's holding the food to look like a claw. This protects your fingers from the knife during cutting.
- ▶ The rolling technique is the most efficient way of cutting because the blade doesn't leave the board.
- ▶ Locomotive motion
 - This technique is used for cutting most items and smaller cuts (for example, dicing onions and carrots).
 - Create a flat, stable surface for food to rest easily on the cutting board. This might require cutting the vegetable in half and placing the cut-side down or slicing off a thin layer of the outside and placing the cut-side down.
 - The blade doesn't leave the board.
- ▶ Up-and-down motion
 - This technique is useful when cutting slices of vegetables (for example, cucumbers and onions) or larger cuts of animal protein.
 - Create a flat, stable surface for food to rest easily on the cutting board. This might require cutting the vegetable in half and placing the cut-side down or slicing off a thin layer of the outside and placing the vegetable cut-side down.
 - Arrange animal protein as flat as possible on the cutting board.
 - Knife leaves the cutting board.



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- ▶ Pivot motion
 - This technique is used for mincing garlic and finely chopping herbs.
 - First, stack herb leaves or hold herbs in a tight bundle in your hand. Curl your fingers into a claw motion and use the locomotive motion to cut herbs. Then place the “claw hand” on top of the knife blade and move the blade up and down to more finely dice or mince herbs.
 - Hand stays on top of the knife’s tip.
- ▶ Vary cuts of items to keep diner interest.
 - Present common menu items in different ways on different days or in various meals. For example, cucumbers on the Salad Bar can be sliced, half-mooned, or julienned from one meal to the next.

Staff hands-on (20 minutes):

Guide participants through each step, emphasizing safety and reinforcing talking points as needed.

1. Cut onion.
 - Slice one half of an onion to ¼” cuts.
 - Dice remaining onion, including both ¼” and ½” cuts.
2. Cut carrot.
 - Cut carrot into ½” planks.
 - Dice planks in ½” cuts.
3. Slice cucumbers.
 - Cut on diagonal bias.
 - Cut into half-moons.
4. Mince fresh cilantro & garlic.

Wrap-up and discussion (5 minutes):

- ▶ Review common knife cuts.
- ▶ Remind cooks that the Salad Bar and daily specialty bars are good places to serve different cuts of vegetables.

RESOURCES FOR STAFF

- ▶ [How to Choose Knives](#)
 - ▶ [Knife Skills 101](#)
 - ▶ [Handling a Knife Safely](#)
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Session #1B: Cooking Vegetables

Overview: Discuss how to set up a workspace station, demo how to read a recipe, and teach different methods for cooking vegetables.

Session length: 40 minutes

Session format: Group explanation, instructor demo & tasting

Learning objectives:

By the end of the session, participants will be able to:

- ▶ Describe how to set up a workspace station
- ▶ Demonstrate how to read and follow a recipe
- ▶ Understand and demonstrate how to properly roast and sauté vegetables

Culinary terms:

- ▶ Roast
- ▶ Sauté
- ▶ Simmer
- ▶ Steam

Demo recipes for tasting:

- ▶ Instructor to prepare during demo, staff to taste:
 - [Roasted Cauliflower \(Fresh\) Q-109-51 \(modified\)](#)
 - [Roasted Cauliflower \(Frozen\) Q-109-53 \(modified\)](#)
 - Sautéed Zucchini (Fresh) Q-122-54 (modified)
- ▶ Participants to prepare and taste:
 - [Roasted Broccoli \(Fresh\) Q-315-00 \(modified\)](#)
 - [Roasted Broccoli \(Frozen\) Q-315-01 \(modified\)](#)
 - Sautéed Green Beans (Fresh) Q-101-54 (modified)
 - Sautéed Green Beans (Frozen) Q-101-55 (modified)

Ingredients needed for demo and hands-on training:

- ▶ 4 lbs fresh cauliflower (2 lbs per session)
- ▶ 4 lbs frozen cauliflower (2 lbs per session)
- ▶ 5 lbs fresh zucchini (2 lbs 8 oz per session)
- ▶ 4 lbs fresh broccoli (2 lbs per session)
- ▶ 4 lbs frozen broccoli (2 lbs per session)
- ▶ 4 lbs fresh green beans (2 lbs per session)
- ▶ 4 lbs frozen green beans (2 lbs per session)
- ▶ 3 cups canola oil
- ▶ Salt
- ▶ Black pepper
- ▶ Non-stick cooking spray



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Equipment needed for demo:

- ▶ Printouts of 3 demo recipes
- ▶ Oven
- ▶ Griddle or tilt skillet
- ▶ 5 chef's knives (used in each session)
- ▶ 6 cutting boards (3 per session)
- ▶ 10 sets measuring spoons (5 sets per session)
- ▶ 10 half-gallon pitchers (5 per session)
- ▶ 8 sheet pans (4 per session)
- ▶ 6 large mixing bowls (3 per session)
- ▶ 10 metal spatulas (5 per session)
- ▶ 22 paper plates (11 per session: 1 plate each)
- ▶ 22 forks (11 per session: 1 fork each)

KITCHEN INSTRUCTIONS

Instructor prep: Cut cauliflower and zucchini. Measure out oil, salt, and pepper. Set up workstation with ingredients laid out. Preheat oven to 450°F and griddle or tilt skillet to 350°F. Reference recipes below.

Instructor notes:

- ▶ If vegetables in the demo or hands-on recipes are unavailable, try a substitute.
 - Fresh summer squash, bell pepper, eggplant, or potatoes can be used for hands-on sessions.
 - Fresh mushrooms, eggplant, summer squash, or parsnips can be used for sauteeing or roasting demos.
 - If you use a different vegetable, refer to AFRS recipes for cook time as this varies greatly.
- ▶ Demo using both fresh and frozen cauliflower (or substitute) to allow participants to taste and compare fresh vs. frozen.

Instructor demo (15 minutes):

1. Set up workstation and print recipes.
2. Roast fresh and frozen cauliflower.
 - Toss cauliflower with oil, salt, and pepper.
 - Evenly space fresh cauliflower across one pan and frozen cauliflower across another pan.
 - Roast at high heat: 450°F conventional (425°F convection) for 10–12 minutes.
3. Sauté fresh zucchini.



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- Heat oil on griddle or tilt skillet to 350°F.
- Add zucchini, salt, and pepper.
- Sauté zucchini for 5–8 minutes.

Instructor talking points:

- ▶ Before you start, it's important to set up a workstation that includes all recipe ingredients and cooking utensils.
- ▶ Read the recipe thoroughly.
 - Be sure to read notes as these might list acceptable substitutions, suggest batch cooking, or state the specific brands used to develop the recipe (which might indicate certain characteristics about an ingredient that could be important).
- ▶ When AFRS develops a recipe that calls for a specific brand, such as buffalo sauce or vegetable base, it will be listed in the notes. Different brands might differ in heat intensity or reconstitution rates, so it's important to review the ingredients you have on hand.
 - Mise en place = “Everything in its place” refers to the process of planning ahead and organizing all your ingredients and utensils at once.
 - > It saves time!
 - > Mise en place helps you be organized and prepared. You don't want to get halfway through cooking and realize you're missing an ingredient, or you're ready to use something, but it still needs to be peeled and chopped.
 - Prepare ingredients as listed in methods.
 - > For example, chop onion, cut broccoli, measure spices, or drain canned beans.
 - Once items are prepped, cooking instructions should be easy to follow.
- ▶ Prepare vegetables.
 - Pigment in cells gives veggies their color.
 - > Chlorophyll is the pigment in certain veggies—such as broccoli, green beans, and kale—that makes them green.
 - > Carotene has a red or orange pigment found in carrots, sweet potatoes, and tomatoes.
 - > Flavonoids, which range in color from red to purple to white, can be found in blueberries, mushrooms, and cauliflower.
 - Veggie pigments are sensitive to heat and can turn a dull color if cooked too long.
- ▶ Cook vegetables using a variety of methods.
 - Simmer: This moist-heat cooking method calls for cooking veggies in water just below a boil.
 - Steam: Also a moist-heat cooking method, steam penetrates veggies to



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cook them through without submerging them in water.

- > Steaming allows veggies to retain most of their nutrients and color as long as they aren't overcooked.
- Simmer or steam vegetables to a “just tender” state. Check for doneness: Fork can easily pierce the veggie, but it still stays on the fork.
 - > Cook for shortest amount of time possible to preserve color and nutrients.
 - > Don't boil because this method overcooks the outside before the inside is cooked.
 - > Heat within the veggies continues to cook them, even after removing them from the water or steamer, so quickly drain or transfer to serving pans.
- ▶ If serving cold, plunge veggies into an ice bath to immediately stop the cooking process.
 - Roasting or sautéing: Dry-heat cooking methods
 - > These methods concentrate and intensify flavors.
 - > Toss ingredients well to evenly distribute oil and spices.
 - > Veggies need enough oil so they don't burn or stick to the pan or cooking surface. Too much oil can make vegetables mushy.
 - Roast at high heat to ensure browning.
 - Oil conducts heat from the oven and raises the surface temperature of veggies, helping them to brown evenly.
 - Natural sugars brown or caramelize vegetables, creating a completely different flavor than plain raw vegetables.
- ▶ Veggies need ample space to cook.
 - Crowding steams vegetables because they're spaced close together, giving off steam.
 - Crowding won't allow vegetables to become crispy or brown (which produces flavor).
- ▶ Frozen veggies work for all cooking applications.
 - Packaged and frozen at peak of ripeness, most frozen veggies are blanched or partially cooked before freezing.
- ▶ All veggies can be cooked any way, but certain cooking methods are recommended for certain veggies.
 - Roast or sauté Brussels sprouts for best results. Simmering or steaming them makes them waterlogged and bitter. It's true that some people like them this way, but not many.
 - Roast, steam, or simmer frozen cauliflower. Sautéing takes too long and won't likely cook it evenly.



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Staff hands-on (20 minutes):

1. Break into 4 groups and assign each group one of the following recipes:
 - Roasted fresh broccoli
 - Roasted frozen broccoli
 - Sautéed fresh green beans
 - Sautéed frozen green beans
2. Participants prepare to cook.
 - Ask them to read the assigned recipe thoroughly.
 - Have them gather ingredients and set up their workstations.
3. Participants prepare the recipe.
4. Taste finished products and discuss fresh vs. frozen differences (for example, they might notice a difference in texture).

Wrap-up and discussion (5 minutes):

1. Provide examples of veggies that work well for each cooking method.
 - Roasting: Brussels sprouts, broccoli, butternut squash, cauliflower, eggplant & potatoes
 - Sautéing: broccoli, green beans, carrots, asparagus, bell pepper, onions & halved, quartered, or shredded Brussels sprouts
 - > Fresh cauliflower florets and whole Brussels sprouts can be sauteed, but it takes a long time and isn't recommended.
 - Simmering: cauliflower, carrots, broccoli, peas & corn
 - Steaming: green beans, carrots, cauliflower & broccoli
2. Explain that the same veggie—whether it's steamed, simmered, roasted or sautéed—codes Green. The sodium code might change depending on seasoning, sauce, etc.
3. Steamed veggies can be served plain, with a vinaigrette or sauce, or with seasonings nearby for diners to season themselves for extra variety and enhanced flavor.
4. Leftover roasted and sautéed veggies work well as items on the Sandwich Bar, Omelet Bar, or Breakfast Bar (as mix-ins to oatmeal or grits).
5. Encourage participants to check out the resources on the [G4G Recipes section](#) on the HPRC website.
 - The section includes recipes for a wide variety of fresh and frozen vegetables that can be prepared using multiple cooking techniques: simmering, steaming, roasting & sautéing.
 - Coming soon to the [G4G Food Prep Guidelines section](#): G4G Technical Guidelines Card for Produce.



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RECIPES

DEMO Recipe #1:

Roasted Cauliflower (Fresh) (Green, Moderate)

Q-109-51 (modified)

Servings: 8

Prep time: 5 minutes

Cook time: 10–12 minutes

Ingredients:

- ▶ 3¼ qt fresh cauliflower florets, cut into 1–2” pieces
- ▶ 5 Tbsp + 1 tsp oil
- ▶ ¾ tsp salt
- ▶ ¼ tsp pepper

Directions:

1. Combine cauliflower, oil, salt, and pepper. Toss thoroughly to distribute oil and spices.
2. Evenly spread on a sheet pan.
3. Roast at 425°F for 10–12 minutes.

DEMO Recipe #2:

Roasted Cauliflower (Frozen) (Green, Moderate)

Q-109-53 (modified)

Servings: 8

Prep time: 5 minutes

Cook time: 15–17 minutes

Ingredients:

- ▶ 3¼ qt frozen cauliflower florets
- ▶ 2 Tbsp + 2 tsp oil
- ▶ ¾ tsp salt
- ▶ ¼ tsp pepper

Directions:

1. Combine cauliflower, oil, salt, and pepper. Toss thoroughly to distribute oil and spices.
2. Evenly spread on a sheet pan.
3. Roast at 425°F for 15–17 minutes.



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DEMO Recipe #3:

Sauteed Zucchini (Fresh) (Green, Moderate)

Q-122-54 (modified)

Servings: 8

Prep time: 5 minutes

Cook time: 5–8 minutes

Ingredients:

- ▶ 2¾ qt fresh zucchini, sliced ¼” thick
- ▶ 2 Tbsp + 2 tsp oil
- ▶ 1¼ tsp salt
- ▶ ⅛ tsp pepper

Directions:

1. Preheat griddle to 350°F. Heat oil.
2. Add zucchini, salt, and pepper. Toss thoroughly to distribute oil and spices.
3. Saute zucchini for 5–8 minutes, stirring occasionally.

HANDS-ON Recipe #1:

Roasted Broccoli (Fresh) (Green, Moderate)

Q-315-00 (modified)

Servings: 8

Prep time: 5 minutes

Cook time: 6–7 minutes

Ingredients:

- ▶ 3 qt fresh broccoli florets, cut into 1½” pieces
- ▶ 5 Tbsp + 1 tsp oil
- ▶ ½ tsp salt
- ▶ ⅛ tsp pepper

Directions:

1. Combine broccoli, oil, salt, and pepper. Toss thoroughly to distribute oil and spices.
2. Evenly spread on a sheet pan.
3. Roast at 425°F for 6–7 minutes.



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HANDS-ON Recipe #2:

Roasted Broccoli (Frozen) (Green, Moderate)

Q-315-01 (modified)

Servings: 8

Prep time: 5 minutes

Cook time: 10–11 minutes

Ingredients:

- ▶ 3 qt frozen broccoli florets
- ▶ 5 Tbsp oil
- ▶ ½ tsp salt
- ▶ ¼ tsp pepper

Directions:

1. Combine broccoli, oil, salt, and pepper. Toss thoroughly to distribute oil and spices.
2. Evenly spread on a sheet pan.
3. Roast at 425°F for 10–11 minutes.

HANDS-ON Recipe #3:

Sautéed Green Beans (Fresh) (Green, Moderate)

Q-101-54 (modified)

Servings: 8

Prep time: 5 minutes

Cook time: 12–14 minutes

Ingredients:

- ▶ 3 qt fresh green beans, trimmed
- ▶ 2 Tbsp + 2 tsp oil
- ▶ ½ tsp salt
- ▶ Pepper to taste

Directions:

1. Preheat griddle to 350°F. Heat oil on griddle.
2. Add beans, salt, and pepper. Toss thoroughly to distribute oil and spices.
3. Sauté for 12–14 minutes, stirring occasionally.



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HANDS-ON Recipe #4:

Sautéed Green Beans (Frozen) (Green, Moderate)

Q-101-55 (modified)

Servings: 10

Prep time: 5 minutes

Cook time: 13–15 minutes

Ingredients:

- ▶ 2½ qt frozen green beans
- ▶ 3 Tbsp + 2 tsp oil
- ▶ ½ tsp salt
- ▶ Pepper to taste

Directions:

1. Preheat griddle to 350°F. Heat oil on griddle.
2. Add beans, salt, and pepper. Toss thoroughly to distribute oil and spices.
3. Sauté for 13–15 minutes, stirring occasionally.