

Arizona WIC Training

Infant Nutrition Course



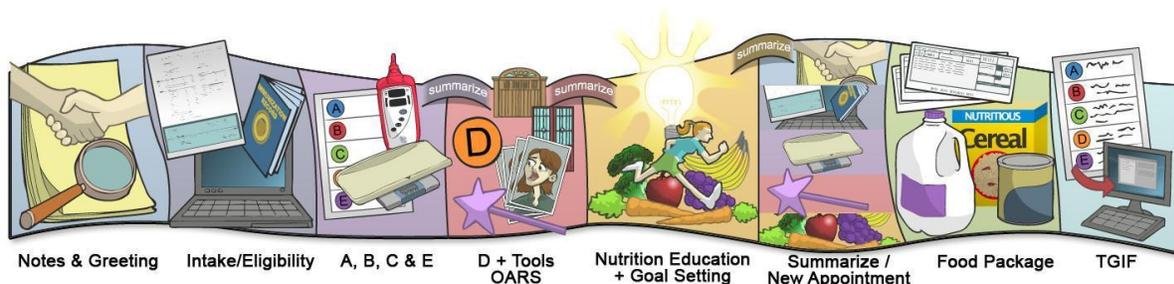
**Nutrition Educator
Guidebook**



Table of Contents

Nutrition Educator Guidebook

What Will You Learn?	page 3
❖ Nutrition Services Standards	page 3
Instruction Level	page 4
Items Needed for This Course	page 4
Recommended Time	page 4
Things to Remember	page 4
Module 1: Infants Newborn to 6 Months	page 5
<i>Infant Nutrition Activity 1</i>	page 6
Module 2: Infant Formula	page 8
<i>Infant Nutrition Activity 2</i>	page 9
Module 3: Infants 6 to 12 Months	page 10
<i>Infant Nutrition Activity 3</i>	page 11
<i>Infant Nutrition Activity 4</i>	page 13
<i>Infant Nutrition Activity 5</i>	page 14
<i>Infant Nutrition Activity 6</i>	page 15
Post-Test Completion	page 16
Competency Achievement Checklist	page 17,18



What Will You Learn?

Growth during the first year of life is faster than any other time. An infant’s birth weight will usually double by six months and triple by the first birthday. Good nutrition during this period of rapid growth is vital to ensure the infant develops both physically and mentally to their fullest potential.

Nutrition Services Standards competencies

- ◆ To the extent possible, arrange areas for nutrition and health assessment counseling in a way that allows participants and staff to sit face-to-face without physical barriers (i.e., knee-to-knee). (standard 2, A, 4)
- ◆ Ensure that all staff treat participants and their colleagues with respect and provide services in a respectful manner. (standard 2, A, 10)
- ◆ Emphasize greeting and welcoming all participants upon arrival despite punctuality, and provide options for participants whom the clinic cannot accommodate at that time, such as being seen later that day or rescheduling for another day. (standard 2, C, 5)
- ◆ Accommodate a participant’s individual needs, including cultural preferences, by providing information (verbal and written) in their native language or translated as needed. If interpreters are unavailable, the clinic employs a language line. (standard 2, C, 11)

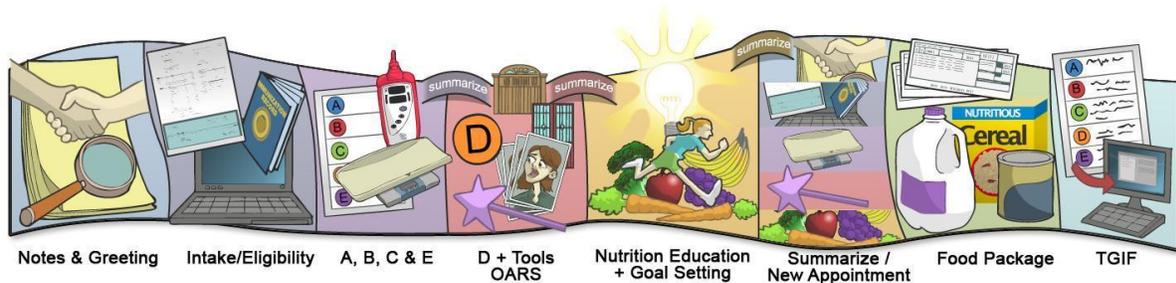
Standard 6, B, Nutrition Assessment, NSS

- ◆ Explain to the participant the purpose of the assessment.
- ◆ Describe the staff relationship to the participant as a partnership working to achieve positive health outcomes.
- ◆ Follow-up on previous assessments, intervention plans, participant goal(s) and referrals, as appropriate.

This course also reviews important educational points to discuss with caregivers of infants enrolled in WIC and highlights the infant-related nutrition risk factors.

The Infant Nutrition LMS Course consists of three modules:

- Module 1: Infants Newborn to 6 Months
- Module 2: Infant Formula
- Module 3: Infants 6 to 12 Months



After completing the Infant Nutrition LMS Course, the nutrition educator will:

- ◆ Identify an infant's hunger and fullness cues from newborn through 6 months old.
- ◆ Identify the Arizona WIC Program contract formulas.
- ◆ Nutrition educator is able to identify at least three major differences among the types of formulas available to infants.
- ◆ Describe how to properly mix the three different forms of formula.
- ◆ Describe indicators of an infant's readiness to start introducing solid foods.
- ◆ Give examples of types of fruits, vegetables, protein foods, and types of iron-containing foods to introduce to an infant first.
- ◆ Correctly assess anthropometric, biochemical, and dietary risks for a WIC participant.
- ◆ Explain how to transition a baby to a cup.
- ◆ Explain when to wean the child from the bottle.
- ◆ Nutrition educator knows the definition of premature status.
- ◆ Nutrition educator is able to explain the difference between actual age and corrected age.

Instruction Level

Prerequisite for taking the Infant Nutrition Course: Basic Nutrition Course

Items Needed for This Course

- ◆ Pen or pencil
- ◆ Hemoglobin chart for cut-off values for hemoglobin levels, 0-2,999 feet elevation (Activity 4)

Recommended Time

- ◆ Approximate time it takes to complete the Infant Nutrition LMS Course: Two to four hours
- ◆ Approximate time it takes to complete the face-to-face activities and discussion: One to two hours

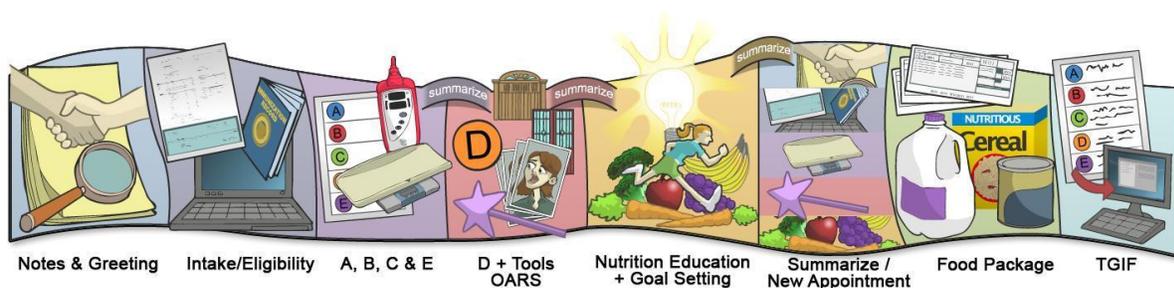
Things to Remember

- ◆ This guidebook is yours to keep.
- ◆ Feel free to take notes, highlight, or write in the guidebook.
- ◆ Ask your trainer(s) if you need help, have questions about the information in the Infant Nutrition Course, or have questions about additional topics related to infant nutrition.
- ◆ Your trainer will be assessing your understanding of the infant nutrition information throughout the duration of the course training. The training activities consist of WIC-relevant topics and require critical thinking skills to complete. Participation in the face-to-face activities and discussions is expected and essential to successfully complete the Infant Nutrition Course. Please see the *Competency Achievement Checklist* at the end of this guidebook.

Module 1: Infants Newborn to 6 Months

Begin the LMS Infant Nutrition Course. Please complete the steps in the following order:

- Log onto <https://az.train.org/DesktopShell.aspx>
- Complete the Infant Nutrition Pre-Test.
- Open the Infant Nutrition Online Course.
- Optional: open the Infant Nutrition Course Companion Manual to reference throughout the course. Locate the Course Companion Manual by clicking on the “Resources” button within the LMS course.
- Complete Module 1: Infants Newborn to 6 Months
- Complete Infant Nutrition Activity 1, either individually, with the other nutrition educator(s), or with your trainer.
- Meet with your trainer to discuss Module 1 and Activity 1.



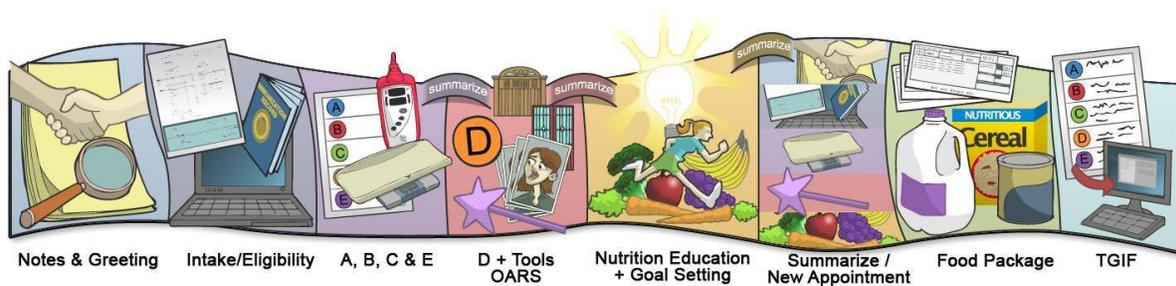
Infant Nutrition Activity 1

a. Even though a baby cannot say in words, “I’m hungry,” they can show parents they want to eat. What are some hunger cues a baby from birth to 5 months may show? (Module 1, page 5)

b. What are some hunger cues a baby from 4 to 6 months may show? (Module 1, page 5)

c. Even though a baby cannot say in words, “I’m full,” they can show parents they are not hungry anymore. What are some satisfied cues a baby from birth to 5 months may show? (Module 1, page 5)

d. What are some satisfied cues a baby from 4 to 6 months may show? (Module 1, page 5)



Infant Nutrition Activity 1, continued

The topics below are related to common infant feeding topics. They are not covered in the Infant Nutrition LMS Course. Please meet with your trainer to discuss the information.

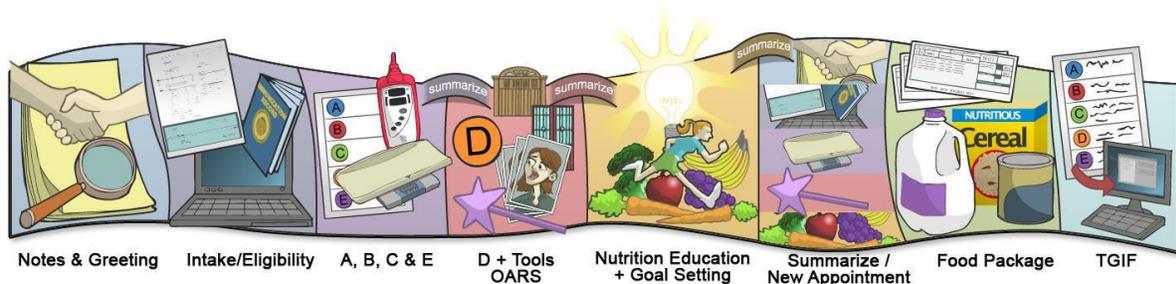
Common Feeding Topics

- a. Why is it important to listen to a baby's signs of hunger and fullness?
- b. Does crying always mean a baby is hungry? What else could it mean?
- c. How else can parents give comfort besides feeding?
- d. What is a feeding relationship?
- e. How do parents create a positive feeding relationship with their infant?
- f. **True or False?** Studies have shown breastfeeding decreases the risk of obesity.
- g. **True or False?** Not starting solids until your baby is ready can decrease the risk of future obesity. If false, why?
- h. **True or False?** Feeding cereal in a bottle can help a baby sleep through the night. If false, why?
- i. **True or False?** Parents who want to give juice should wait until an infant is at least 6 months of age to give juice, and should give no more than four ounces of 100% juice per day. If false, why?
- j. **True or False?** Juice can be given in a bottle, a cup, or a sippy cup. If false, why?

Module 2: Infant Formula

Return to the LMS Infant Nutrition Course. Please complete the steps in the following order:

- If necessary, log back onto <https://az.train.org/DesktopShell.aspx>
- If necessary, reopen the Infant Nutrition Online Course.
- Complete Module 2: Infant Formula
- Complete Infant Nutrition Activity 2, either individually, with the other nutrition educator(s), or with your trainer.
- Meet with your trainer to discuss Module 2 and Activity 2.



Infant Nutrition Activity 2

1. List the Arizona WIC Program's current contract formulas for: (refer to WIC Program and Policy Manual Chapter 4)
 - a.
 - ◆ Standard cow's milk-base formula:
 - ◆ Soy formula:
 - b. List the Arizona WIC Program's current special formulas for:
 - ◆ Spit-Up:
 - ◆ Lactose Sensitivity:
 - c. Cow's milk-based formula and soy-based formula are packaged in three different forms: ready-to-feed, concentrated liquid, and powdered. Describe how to prepare a four ounce bottle for each form. (Module 2, Page 12)
 1. Ready-To-Feed (RTF):
 2. Concentrated liquid:
 3. Powdered:
 - d. When preparing concentrated or powdered formula, why is it important to mix the formula with the right amount of water? (Module 2, page 12)

Hint: If needed, each activity identifies a specific slide(s) in the course or another reference in which you can find the information necessary to complete the activity.

Module 3: Infants 6 to 12 Months

Return to the LMS Infant Nutrition Course. Please complete the steps in the following order:

- If necessary, log back onto <https://az.train.org/DesktopShell.aspx>
- If necessary, reopen the Infant Nutrition Online Course.
- Complete Module 3: Infants 6 to 12 Months
- Complete Infant Nutrition Activities 3, 4, 5, and 6 either individually, with the other nutrition educator(s), or with your trainer.
- Meet with your trainer to discuss Module 3 and Activities 3, 4, 5, and 6.

Infant Nutrition Activity 3

Introducing Solid Foods

- a. Which of the following statements are indicators of an infant's readiness to start introducing solid foods? (Circle the letters) (Module 3, page 2)
 1. Ability to sleep through the night
 2. Ability to keep the tongue low and flat for spoon feeding
 3. Ability of the infant to sit up on own or with minimal help
 4. The infant has at least one tooth
 5. The infant can hold a spoon
 6. Ability to keep food in the mouth and swallow it rather than pushing it back out onto the chin
 7. Infant sleeps longer after eating solid food
 8. Opens mouth when sees food
 9. The infant sits on mom's lap for support while mom feeds solids
- b. What age is recommended to introduce solids to an infant? (Module 3, page 3)
- c. What is a good food to introduce first? (refer to chart on Module 3, page 6, and updated guidelines for food introduction from the American Academy of Pediatrics)
- d. What solid foods might a parent introduce next? (Module 3, pages 3 and 5)

- e. What are the AAP guidelines for beginning to introduce solids to an infant, texture advancement, and when to introduce “finger foods”?

Infant Nutrition Activity 3, continued

- f. How much time should a caregiver wait between offering new foods? (Module 3, page 3)
- g. What are the recommendations for giving an infant water? (refer to chart on Module 3, page 6)
- h. Fill in the infant feeding recommendations in the chart below. (refer to chart on Module 3, page 6)



Arizona Department of Health Services
24-Hour Breastfeeding
Hotline: 1-800-833-4642

Nutrition For Your Baby

	Birth to 3 Months	4 to 5 Months	6 to 9 Months	10 to 12 Months
What	Breastmilk or iron-fortified formula is all that is needed.		<ul style="list-style-type: none"> Breastmilk or iron-fortified formula is still the most important source of nutrition. 	<ul style="list-style-type: none"> Breastmilk or iron-fortified formula is still needed.
How Much	<ul style="list-style-type: none"> Babies' tummies are small and may only hold 2-3 ounces at a time. 	<ul style="list-style-type: none"> Babies often feed 6-8 times per day. 	<ul style="list-style-type: none"> Babies often feed at least 4-6 times per day. 	<ul style="list-style-type: none"> Offer 3 nutritious meals and 2-3 healthy snacks per day.
Nutrition Tips	<p>The American Academy of Pediatrics (AAP) encourages providing baby only breastmilk for the first 6 months, as it is the best source of nutrition. Breastmilk, along with complementary foods, is encouraged until at least 12 months of age or as long as desirable for both mom and baby.</p> <p>It is important to hold babies while they are being fed.</p> <p>Propping the bottle can lead to:</p> <ul style="list-style-type: none"> 		<ul style="list-style-type: none"> Offer one new food at a time and watch for any reactions. Wait at least 2-3 days in between offering new foods. Bottles are only used for breastmilk or infant formula. <p>Babies may be ready for solid foods when they can do ALL of the following:</p> <ul style="list-style-type: none"> Sit up and hold head steady; Turn head away from food when full; 	<ul style="list-style-type: none"> It is important to eat as a family with your baby during mealtime. Babies may be messy, but it helps their development to try to feed themselves. <p>Babies may be ready for family foods and to feed themselves when they can:</p> <ul style="list-style-type: none"> Bring food to their mouth;
Signs of Hunger	Hands near mouth, sucking noises, roots/searches for nipple, bends arms/legs, puckers lips, closed/tight fists. Crying can be a late sign of hunger.			
Signs of Fullness			Slows down pace of eating, turns head away, closes mouth, covers mouth with hands, fusses or cries, falls asleep.	
Foods to Avoid	<ul style="list-style-type: none"> Never give an infant honey or foods containing honey. It could cause food poisoning or even death. Certain foods may cause choking, like nuts, raisins, candy, chips, popcorn, hot dogs, whole grapes, melted cheese, and peanut butter. Cut all foods into small pieces. 			
Follow baby's lead. Watch and listen for signs of hunger and fullness.				

Infant Nutrition Activity 4

Mock Scenario: Ryan is an 11-month-old male enrolling onto the WIC program for the first time. After talking with Ryan's mother throughout the certification, you complete his ABCDE assessment.

ANTHROPOMETRIC:

Current Weight: 19 pounds and 3 ounces

Current Length: 27 3/8"

Weight-for-length: 75%ile

Length-for-age: 5%ile

BIOCHEMICAL:

Hgb: 10.4 mg/dL (0-2,999 feet elevation)

CLINICAL: Ryan has three teeth. He recently went to the dentist and his mother was told he has some tooth decay.

DIETARY: Ryan drinks 18 ounces of iron-fortified formula per day. He regularly eats fruits, vegetables, cheese, and yogurt. He does not eat meats or beans. He drinks 12 ounces of juice per day from a bottle.

ENVIRONMENTAL/OTHER FACTORS: n/a

Think It Through:

a. What are Ryan's anthropometric risks?

b. What are his biochemical risks?

c. What are his dietary risks?

d. After conducting a thorough assessment on Ryan, what are three suitable nutrition education topics you can offer Ryan's mother to choose from as a focus of his appointment?

Infant Nutrition Activity 5

Time for a Cup

Why is learning about transitioning to a cup important and relevant? WIC has seen increased rates of baby bottle tooth decay, obesity, anemia, and ear infections due to prolonged bottle use.

Parents/caregivers find it difficult to wean their children from the bottle for the following reasons:

- ◆ Fear their child will protest/cry, disrupting the entire family.
- ◆ Find the cup to be messy compared to the bottle.
- ◆ Have busy, hectic lives and feel it is more convenient to give a bottle rather than offer meals/snacks at regular times.
- ◆ Feel their toddler does not eat well enough so they offer the bottle out of fear the child is not getting enough nutrition.
- ◆ They are unsure of the appropriate time to wean or how to go about weaning an older toddler/child.
- ◆ Some attempt to wean but find their efforts sabotaged by a concerned grandparent/other relative/friend who gives the child the bottle despite the plan to wean.
- ◆ Some struggle with weaning an older sibling who steals the bottle away from a younger sibling who is not yet at an appropriate age to wean.
- ◆ Some are not aware of the risks of prolonged bottle use.
- ◆ Some deny the risks, saying they gave a bottle to an older sibling until age 3 and that child is just fine.

Think It Through:

- ◆ How can a parent help their infant change to the cup? (Module 3, page 8)

- ◆ At what age does an infant typically start moving from bottle feeding to cup feeding? (Module 3, page 8)

- ◆ What age is recommended for a bottle-feeding infant to wean completely to a cup? (Module 3, page 8)

Infant Nutrition Activity 6

Premature Infants

1. Nutrition educator knows the definition of premature status.
2. Nutrition educator is able to explain the difference between actual age and corrected age.

Premature infants may have physical problems that have nutritional implications, including immature sucking, swallowing, and immature digestion and absorption of carbohydrates and lipids. Premature infants have increased nutrient and caloric needs for rapid growth. Premature infants grow well on breastmilk. WIC promotes breastfeeding and provides nutrition education about infant feeding.

- a. What is the definition of premature status? (Arizona WIC Nutrition Risk Manual)
- b. A premature infant enrolled onto the WIC program is considered “high risk” (risk 142). What is your Local Agency’s policy and procedure for referring the infant to the registered dietitian? (Arizona WIC Policy and Procedure Manual Chapter 7: Participant and Staff Education; Local Agency policy and procedure)
- c. What can you say to the authorized representative about the registered dietitian referral?

Corrected Age for a Premature Infant

Corrected age is based on the age the infant would be if the pregnancy had actually gone to full term. To calculate, subtract how many weeks premature the baby was from their actual age.

Example: If an infant was six weeks premature and the infant’s actual age is 2 months old, then:

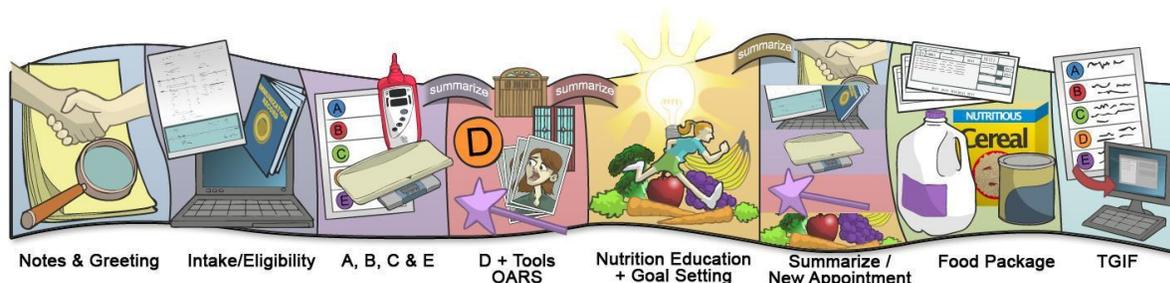
1. Determine actual age in weeks: 4 months x 4 (weeks in a month) = 8 weeks
2. Subtract weeks premature from actual age: 8 weeks actual age – 6 weeks (amount of weeks premature) = 2 weeks corrected age

- e. Why is determining corrected age important when talking to caregivers about introducing solid foods to an infant?

Infant Nutrition Post-Test Completion

Return to the LMS Infant Nutrition Course

- Log onto <https://az.train.org/DesktopShell.aspx>
- Complete the Infant Nutrition Post-Test.
- Share the results of your Post-Test with your trainer.



Competency Achievement Checklist / Infant Nutrition Curriculum

Nutrition Educator's Name _____

Local Agency _____

Trainer: Evaluate the nutrition educator's competency of the infant nutrition information upon completion of the LMS course, all learning activities, and all discussion.

Competency Achievement Checklist Infant Nutrition Curriculum			
At This Checkpoint:	Evaluate This:	Competency Achievement Date	Initials
LMS Pre-Test	Nutrition educator completed the LMS Pre-Test.		
Learning Activities	Nutrition educator accurately <i>completed</i> all activities specified for this course.		
	All activities were <i>discussed</i> with the nutrition educator and reviewed for accuracy.		
Competencies	Nutrition educator is able to identify an infant's hunger and fullness cues from newborn through 6 months old.		
	Nutrition educator is able to identify the Arizona WIC Program contract formulas.		
	Nutrition educator is able to identify at least three major differences among the types of formulas available to infants.		
	Nutrition educator is able to describe how to properly mix the three different forms of formula.		
	Nutrition educator is able to describe indicators of an infant's readiness to start introducing solid foods.		
	Nutrition educator is able to correctly assess anthropometric, biochemical, and dietary risks for a WIC participant.		
	Nutrition educator is able to explain how to transition a baby to a cup.		
	Nutrition educator is able to explain when to wean the child from the bottle.		
	Nutrition educator knows the definition of premature status.		
	Nutrition educator is able to explain the difference between actual age and corrected age.		
LMS Post-Test	Nutrition educator has achieved a score of 80% or better.		

I verify _____ has achieved the learning objectives of the *Online Infant Nutrition Course* and is competent to continue with WIC training. The nutrition educator meets the criteria set by the State to receive a *Certificate of Completion* for this course.

Trainer(s) Signature _____ Date _____

***File this signed Competency Achievement Checklist in the appropriate employee training file, in accordance with WIC policy.**

