Baking Science Professional Assessment

Pilot Testing Information

Assessment Specifications

The specific content being assessed by the items on the assessment follows the test specifications outlined in this section of the bulletin. Please note the number of scored items on the assessment for each standard.

Standards	Weighting	Number of Items
Careers	8%	10
Food Safety and Sanitation	17%	20
Baking Equipment	12%	15
Baking Math	12%	15
Baking Ingredients	17%	20
Baking Techniques	17%	20
Baking Food Science	17%	20

The assessment specifications provided in this document are intended to provide test candidates with a comprehensive overview of the domains and competencies that are covered on the assessment.

Format

A large bank of high quality, valid test items have been developed for the assessment. The test includes 150 four-option multiple choice items. Each of the items has only one (1) correct response. Of the 150 items presented on the assessment, 120 will be scored and 30 are non-scored (used for research purposes).

In addition to each item being associated with a standard and competency, the items are also designed to assess appropriate cognitive levels necessary for competent practice. Specifically, some items assess at the lower level, some at the middle levels, and some at higher order levels. The items included on each test proportionally represent three cognitive difficulty levels:

- Level 1- 40%;
- Level 2 – 30%; and
- Level 3 – 30%.

Original Bloom's Taxonomy	Revised Bloom's Taxonomy	Cognitive Complexity Level
Knowledge Defines, describes, identifies, labels, lists, matches, names, reads, records, selects, states, views	**Remember** Recognize, retrieve, identify, recall	1
Comprehension Classifies, describes, discusses, lists, matches, names, reads, records, selects, states, views	**Understand** Interpret, clarify, translate, illustrate, categorize, classify, conclude, predict, summarize, infer, compare, explain	
Application Assesses, determines, develops, discovers, establishes, informs, predicts, projects, provides, relates, shows, uses	**Apply** Execute, carry out, use, implement	2
Analysis Breaks down, correlates, differentiates, illustrates, infers, points out, recognizes	**Analyze** Differentiate, select, focus, organize, outline, attribute, determine point of view	
Synthesis Communicates, compares, contrasts, creates, designs, expresses, formulates, plans, reorganizes, reinforces, substitutes	**Evaluate** Check, coordinate, detect, monitor, test, critique, judge	3
Evaluation Appraises, compares & contrasts, concludes, criticizes, decides, defends, interprets, judges, justifies, supports	**Create** Generating, hypothesizing, planning, designing, producing, constructing	

Assessment Results

The goal of pilot testing is to ensure the reliability of the test and analyze the test psychometrics. Once the pilot testing period is completed and the standard setting process is conducted, results will be analyzed and then provided to the test candidate via email. The pilot test results will provide an overall percentage score and a breakdown of scores corresponding to the standards. Based on the pilot testing psychometrics, the national cut score for professional certification eligibility will be established by AAFCS. Once the pilot test data is analyzed and the certification cut-score is established, pilot test participants who earned the qualifying score will have the opportunity to apply for the professional certification.

NOTE: Successful performance on one of the exams in the AAFCS examination system will satisfy one of the requirements for the CFCS national professional level credential awarded by AAFCS. Subsequently, obtaining the national AAFCS credential would be optional and would require submitting a separate national certification application and fee, agreeing to abide by the Professional Code of Ethics, and meeting ongoing professional development requirements.

Assessment Domains and Competencies

Standard 1: Careers - Explore careers in the field of baking science.

A. Describe the roles and responsibilities for individuals engaged in baking careers.
B. Evaluate opportunities for employment and entrepreneurship in the baking industry.
C. Summarize the education, training, and certification requirements for careers in baking.

Standard 2: Food Safety & Sanitation - Demonstrate food safety and sanitation procedures.

A. Demonstrate safe food handling and preparation techniques to integrate Hazard Analysis and Critical Control Points (HACCP).
B. Outline steps for cleaning and sanitizing food-preparation utensils and equipment.
C. Apply practices for allergen management.
D. Maintain Safety Data Sheets (SDS) for workplace and food safety.

Standard 3: Baking Equipment - Maintain kitchen and lab equipment.

A. Differentiate equipment for baking in residential and commercial settings.
B. Describe the process for cleaning, storing, and safe operation of equipment.

Standard 4: Baking Math - Apply mathematical and business skills.

A. Modify a recipe based on yield.
B. Determine recipe yields.
C. Estimate the production cost of baked products.
D. Determine the amounts of product needed in a baking and pastry recipe, using the baker's percentage method.

Standard 5: Baking Ingredients - Identify baking and pastry ingredients and their functions.

A. Describe the sources and functions of baking ingredients.
B. Demonstrate mis en place for baking and pastry preparation.
C. Evaluate the relationship between ingredients and the quality of results.

Standard 6: Baking Techniques - Demonstrate baking and pastry preparation techniques.

A. Prepare a variety of baked goods (e.g., quick breads, cakes, cookies, pies, tarts)
B. Prepare yeast-leavened doughs.
C. Evaluate baked goods for irregularities in appearance, texture, or taste.

Standard 7: Baking Food Science - Demonstrate food science techniques.

A. Describe the role of science and food-science in the development of baked goods.
B. Explain basic chemistry concepts and how ingredients react in food-science applications.
C. Explain the purpose of sensory evaluation panels and the process for conducting a sensory panel using controls.
D. Conduct testing of baked goods using current technology.