
SCAA Teaching Lab | Requirements for Certification

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Purpose

This document outlines the minimum requirements necessary to achieve a successful SCAA Laboratory Certification. The document will be used by an SCAA Credentialed Lab Inspector to determine whether the lab meets the standards for Certification set by the SCAA. The SCAA Lab Inspection & Certification Program (hereafter referred to as “Lab Certification”) exists to promote SCAA’s mission to recognize, promote, and develop specialty coffee. Certified Labs provide an opportunity for consistency in cupping and testing of Q-graders, and objective evaluation of coffee throughout the world. Objective, reasonable, calibrated, consistent Lab Inspectors ensure global compliance and are an integral part of working toward consistency in grading and evaluation of specialty coffee.

Request an Inspection

To request an inspection for the purpose of obtaining SCAA Lab Certification, please submit a request to the SCAA to have the lab inspected by an SCAA Credentialed Lab Inspector. To view the complete instructions, please visit <http://www.scaa.org/?page=certlab> and view the document *SCAA Teaching Lab | Inspection Procedures for Certification* for further information on the process. To submit a request, please visit the website specified above and click the link to request an inspection. Reference Documents | All SCAA Standards and Protocols referenced in this document are available at www.scaa.org under the Resources tab.

Requirements for Certification

Lab Environment Requirements

I. Cupping Rooms & Classroom

A. SCAA Certified Labs must have a cupping room/classroom big enough to accommodate at least one cupping table (maximum of six cuppers per table) and additional furniture to perform the rest of the required testing.

B. Room Dimensions | Room should be no smaller than 110 sq. ft (10.2 sq. meters). Tables should be at least 5 ft by 2 ft (1.524m by 0.6096m) with a height of 42 in. to 46 in. (1.0668m to 1.1684m). The dimensions of the room should be comfortable, allowing for 3 feet (0.9 m) of free space around the cupping table. Cupping rooms that are larger than the dimensions specified above are allowed.

C. Classroom should be able to accommodate at least the same number of students as the cupping tables. The cupping room may double as a classroom, but there should be a distinct area for students to perform the required testing.

D. Roasting should be done in a separate room so that it does not interfere with classes that are in session. It is allowable to have a roaster in the Lab so long as it is not in use at any time during teaching.

II. Lighting

- A. Type | Either:
 - a. Full spectrum light source to achieve the following light parameters: minimum of 4,000 Kelvin (measure of color temperature) / 1200 LUX (measure light cast on a surface of 1 sq. meter) / 120 FTC (Foot-candles measure the light cast on 1 sq. ft). Replace light bulbs accordingly to maintain the above retention indexes.
 - b. Table-Top Lighting Fixtures | To grade green coffee, if the overhead lighting is not to requirements. One light is required per every four students. See the *SCAA Protocols | Green Coffee Color Assessment* document for more details
- B. Red Lighting Requirements | Some of the testing will require a dark environment. Labs must be equipped with window shades to darken the environment as needed. To perform these tests, the lab must also be equipped with red lights over the tables capable of masking the color differences of the coffee in the cups.

III. Ventilation

- A. Controlled | Ideally, air conditioning or alternative system as an Evaporative Cooling System. It is important that the air movement is not so strong that will disturb the smelling of the aroma during cupping or the act of smelling during other exercises. If such disturbances occur, the AC or alternative air system must be temporarily shut off until that specific part of the exercise or test is over.
- B. Pleasant | Temperature inside cupping rooms must be comfortable, within the range of 68°F to 86°F (20°C to 30°C) and relative humidity is not to exceed 85%. Temperature should be consistent throughout the rooms, free of hot or cold spots.

IV. Environment

- A. No odors | No strange odors are allowed, food, perfumes, smoke, etc.
- B. No phones | No phones are permitted except those with a “do not disturb” (DND) function so that cupping and other exercises can take place uninterrupted. The candidate lab must agree to place any phones in DND mode while conducting tests.
- C. No noise | A “no noise” environment is required. External noise should be minimal, muffled or non-existent. Cars, airplanes, working machinery, people and other noises should be down to a level where they will not interfere with the cuppers work at hand.
- D. No distractions | No visitors are allowed in class, but may observe from a viewing area (behind glass, outside of the classroom). Visitors’ presence is absolutely restricted during the course testing. Lab must be clean, orderly, and insect-free.

Lab Materials Requirements

The following materials are required to become an SCAA Teaching Laboratory.

V. Sample Roaster

A. Must be able to roast coffee within the parameters recommended by the SCAA as outlined in the document *SCAA Protocols | Cupping Specialty Coffee*. Whether the candidate lab roasts its own samples to be used during testing, or if another sample roasting source is used, sample roasting must be delivered within these parameters. Batch size must accommodate the number of students being taught.

This grading system outlines that a light to light-medium roast, measured via the M-Basic (Gourmet) Agtron scale of approximately 58 on whole bean and 63 on ground, +/-1 point (55-60 on the standard scale or Agtron/SCAA Roast tile #55), and moisture of the green coffee between 10-12% is ideal.

VI. Grinder

A. Must be able to grind meeting SCAA parameters for grind particle size. Must be able to perform within a 10% margin of difference from grind to grind using the same coffee. Grinders will be named for future reference and follow-up QC tests. SCAA Lab Inspector will assign these names or codes and inform the Lab Supervisor of how they will be identified.

VII. Measuring Equipment

A. The following piece of equipment is required to accurately prepare tasting solutions: A scale capable of precision of 0.01 grams and a capacity of 100-300 grams and that is ANSI certified to standard 169.

B. Also required are graduated cylinders in these sizes: 250 ml, 500 ml, and 1000 ml.

VIII. Roast Color Identification

A. Must be able to identify roasted coffee color and compare with the SCAA/Agtron Roast Color Identification Scale. Different technologies can be used to achieve this measurement: refraction wavelength in a near infrared format; true color measurement; etc. If different than an Agtron Machine a correlation must be determined and should correlate to the minimum 95% confidence, +/-3 points. Please review the *Confidence Range Scores* document for clarification.

IX. Water Treatment

A. A candidate lab must produce water that meets SCAA specifications for water quality for cupping. Bottled that meets the SCAA standard is acceptable. The Inspector will check that if a filtration system is present that the filter has been changed within 1 year. The Inspector will collect samples from all individual water supplies used for cupping, and measure the total dissolved solids to ensure water is compliant with SCAA standards, as outlined in the document *SCAA Standard | Water for Brewing Specialty Coffee*. If this is questionable, then the water will be sent to a qualified

facility for testing.

- B. The Inspector will also evaluate the hot water heater for temperature and ensure the capacity of the hot water heater is consistent with the number of students being taught.

X. Hot Water

A. Must be able to heat an adequate amount of water proportional to the number of cuppers being taught. Adequate is defined as 57.48 oz. (1.7L) per student per flight (345 oz. or 10.2L for six students). Water must meet the temperature requirements in the document *SCAA Protocols | Cupping Specialty Coffee*.

XI. Cups

A. Glass (tempered) or ceramic materials are acceptable materials for cupping coffee. Recommended cup size is 7 to 9 fluid ounces (207ml to 266ml), where all cups used are of identical volume, dimensions and material of manufacture. Tempered glass and or ceramic cups are recommended to have a diameter between approximately 3" and 3.5" (76mm and 89mm). If the cups appear too wide or narrow, the Inspector may request that the Lab Supervisor set up a small cupping (one placemat of five cups). The crusts should not auto-break (where the grounds do not form a crust because the cup is too wide), nor should they show dry tops (where the crust is too deep and the top layer does not extract because the cup is too narrow). Cups should also accommodate cupping spoons in their typical utilization. SCAA Cupping Protocols should be followed to use the correct amount of ground coffee to match the respective recipient dimension and obtain the ideal extraction. For every six students, a minimum of 35 cups is required.

XII. Cupping Spoons

A. Spoons must be able to take 0.135 to 0.169 fl oz. (4 to 5 ml) of coffee sample and should be of non-reactive metal so as not to add any off-flavors to the coffee.

XIII. Cupping Forms

A. Forms can be paper or electronic format but must follow the SCAA Approved Cupping Form format. Lab Supervisor must show that they have access to these supplies.

XIV. Spittoons

A. Any receptacle able to contain the cupper's expectoration is acceptable.

XV. Two sets of vials of *Le Nez du Café* are necessary per 6 students (*Le Nez du Café* sets to be used in testing must be replaced every two years)

XVI. One set of The Art of Aroma - Perception in Coffee (four-poster set)

XVII. Coffee Taster's Flavor Wheel (poster)

XVIII. One set of the recommended SCAA Organic Acids. The kit must include acids (Citric / Malic / Acetic / Phosphoric) Citric – 1 molar (CAS 77-92-9) 19% + balance Water; Acetic – 1 molar (CAS 64-19-7) 6% + balance Water; Malic (CAS 617-48-1); Phosphoric Acid Crystals reagent grade >98% (CAS 7664-38-2)

XIX. SCAA Green Arabica Coffee Grading Classification System (poster)

XX. Black, non-reflective grading surface/mat of at least 2' x 2' per student.

XXI. One Green Coffee Defects Kit per student. (*The candidate lab must have the answer key available.*)

XXII. One Roasted Defect Kit per student. (*The candidate lab must have the answer key available.*)

XXIII. SCAA Arabica Green Coffee Defect Handbook (one per student is required)

XXIV. SCAA Standards & Protocols | Documents available at www.scaa.org

- A. SCAA Standard | *Green Coffee Quality*
- B. SCAA Standard | *Water for Brewing Specialty Coffee*
- C. SCAA Protocols | *Grading Green Coffee*
- D. SCAA Protocols | *Cupping Specialty Coffee*
- E. SCAA Protocols | *Green Coffee Color Assessment*

All specified equipment is to be maintained up to Certification Standards. In the occurrence of a malfunction, this problem needs to be remedied before the next class is given. No further classes will be held until the lab can demonstrate that the problem has been resolved.

Contact | Any questions on the Laboratory Inspection & Certification process can be directed to certification@scaa.org.