



SCAA Laboratory Inspector Credential Handbook

美国精品咖啡协会教学实验室认证要求

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## Purpose 文档宗旨

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.

本文档以大纲的形式，列出了可以申请认证成为美国精品咖啡协会（以下简称SCAA）教学实验室的入门要求，本大纲同时会作为美国精品咖啡协会教学实验室审核员衡量该实验室是否符合相关项目要求的参考文件。SCAA教学实验室审核员认证项目旨在推广SCAA对精品咖啡的认知和发展。经过统一标准矫正的教学实验室审核员将客观，公正的确保全球范围内的教学质量的一致性：经过官方认证的教学实验室可以在杯测以及认证杯测师（Q-grader）考试过程中在世界各地提供一致的咖啡评估环境。

## Request an Inspection 提出检查需求

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](http://www.scaa.org) under the Resources tab.

请通过SCAA官网申请，提出取得SCAA Lab认证，SCAA会派出认证的教学实验室审核员进行实地检查。通过访问网址：<http://www.scaa.org/?page=certlab> 可以查看完整的指引，你同时可以看到认证检查流程的所有内容并提交认证申请。

SCAA关于咖啡的相关标准和流程参考文件都可以打开 <http://www.scaa.org> 后在导航条的 [Resources] 栏目找到所有资料。

# Requirements for Certification

## 认证要求

### Lab Environment Requirements 教学实验室环境要求说明

#### I. Cupping Rooms & Classroom 杯测室和授课教室

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.

A. SCAA认证教学实验室必须有杯测室或者至少可以放下1张杯测桌的授课教室，该杯测桌最多可以容纳6人同时杯测，用于完成杯测考试的其他设施不可缺少。

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.

B. 房间的面积至少10.2平方米，桌子的面积最低要求是1.534米\*0.6096米，高度介于1.0668米至1.1684米之间。布局舒适，杯测桌四周的自由活动间距有0.9米。

空间更大的杯测室是允许的。

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.

C. 授课教室能够至少容纳和杯测学生一样的人数。杯测室允许同时作为授课教室，但是必须有单独的指定区域，提供给学生来完成必要的考试项目。

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.

D. 咖啡烘焙应该在单独的房间完成，也就是说不可以对授课教室造成任何干扰。教学实验室有烘焙机是允许的，但是授课教室上课期间不可以同时进行咖啡烘焙。

## II. Lighting 照明

### A. Type | Either: 照明类型以下任选其一

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.

a. 完全光谱灯需要满足以下标准：至少4000K（开氏温标）或者1200 LUX（测量每平方米的表面投射亮度）如果达不到，需要更换新的灯泡以实现该最低照明标准。

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. 台灯用于生豆评级时，如果吊顶灯光不符合照明标准，每4个学生需要1个台灯。更多内容请查看SCAA Protocols | Green Coffee Color Assessment文档。

### B. Red Lighting Requirements | 红灯标准

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.

B. 有一些考试时需要黑暗的环境，教学实验室必须配备窗帘让环境达到所需要的黑暗程度。在进行这些考试的时候，教学实验室同时需要在桌面上方配备红色灯光能够遮挡杯中不同咖啡的颜色。

## III. Ventilation 通风设备

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.

A. 控制系统|理想的设备是空调或者用蒸发式制冷系统。空气流动也不可以过于强烈，以免造成杯测过程中影响与嗅觉相关的活动：例如湿香气的判断等。如果这样的打扰是存在的，那么该系统在进行嗅觉相关

的考试或者练习期间必须能做到暂时性关闭，直到考试或者练习项目结束。

- 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.
- B. 舒适程度| 杯测室内部环境温度必须舒适，位于20-30摄氏度之间，相对湿度不得高于85%。室内温度稳定，不可以忽冷忽热。

#### IV. Environment 环境评估

- A. No odors | No strange odors are allowed, food, perfumes, smoke, etc.
- A. 无气味| 任何食品，香水，香烟等味道都不得出现。
- 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.
- B. 无电话| 不带静音模式的电话都不可以出现在杯测室或者其他不可以被打扰的练习过程中。候选认证教学实验室必须同意考试期间能将所有电话置于静音模式。
- 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.
- C. 无噪声| 零噪音环境是必须的。外部的噪音影响应该最小化，微弱或者不存在。汽车，飞机，工作中的机器设备，行人或者其他噪音都不可以对杯测造成干扰。
- 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.
- D. 零干扰| 上课期间不允许任何访客打扰，教室外透过玻璃看到是允许的。课程如果正在进行考试项目，任何访客都绝对禁止出现。教室必须整洁有序无虫害。

## Lab Materials Requirements 教学实验室物品要求

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

以下物品是作为SCAA教学实验室必备的

### 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.

### V. 样品烘焙

- A. 必须有能力按照SCAA的标准烘焙咖啡。具体要求请查看：SCAA Protocols | Cupping Specialty Coffee. 候选认证教学实验室可以在考试期间自己选择烘焙样品或者使用其他样品来源，烘焙的样品必须符合标准，烘焙的批量大小必须和学生人数的需求量匹配。分级系统指出的烘焙程度是浅至浅中烘焙程度，通过Agtron测量豆表色值为58，豆粉颜色是63，误差范围是左右1度。也可以按照SCAA的烘焙色卡对照符合55-60之间的色卡范围。其中，理想的生豆含水量是10-12%。

### VI. Grinder 磨

- 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.
- A. 必须能够研磨满足SCAA标准的研磨粗细，使用同样的磨豆机与磨豆机之间允许有10%的误差。磨需要有标识并符合质量认证。SCAA的教学实验室审核员会给不同的磨豆机命名或者编号并告知教学实验室的负责人，来确保能够相互区分。

## VII. Measuring Equipment 测量工具

- 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 I69.
- A. 以下测量工具是准备杯测：测量范围100-300g且满足0.01g精度的称。该称需要符合美国国家标准学会（ANSI）认证要求。
- B. Also required are graduated cylinders in these sizes: 250 ml, 500 ml, and 1000 ml.
- B. 需要有三个量筒，量程分别为250ml,500ml和1000ml。

## VIII. Roast Color Identification 烘焙颜色辨识

- 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.
- A. 与SCAA的Agtron烘焙颜色辨识尺度对比，能够辨识咖啡的烘焙颜色。不同的测量技术是允许的，例如近红外线折射仪，全彩色度仪等。如果与Agtron机器有所不同，需要确保该测量技术具有至少95%的精确程度，允许正负3度的误差。同时需要提供具体的色度范围表文件进一步说明仪器的精确程度。

## IX. Water Treatment 水源

- 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.
- A. 候选认证实验室需要提供符合SCAA杯测水质要求的水源。符合SCAA标准的瓶装水是可以接受的。候选教学实验室是否在一年以内更换过水处理系统，教学实验室审核员需要进行现场检查确认。同时，审核员会搜集所有可能用于杯测的水源样品，并测量TDS来确保符合SCAA

的标准。相关文件请查看SCAA Standard | Water for Brewing Specialty Coffee。

如果水源存在任何疑问，样品需要送往合格的水质检测机构进行检测。

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.

B. 教学实验室审核员同时需要评估水的加热装置，确保加热到指定温度以及水量能够满足申请的同样数量学生同时进行杯测或相关教学活动。

#### X. Hot Water 热水

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.

A. 可以加热适当的热水量匹配对应的杯测人数。是否合适的标准是每个学生一次使用量为1.7L水那么6个学生一次性需要有10.2L热水。水温符合SCAA的杯测要求。具体文件参考：SCAA Standard | Water for Brewing Specialty Coffee。

#### XI. Cups 杯测杯子

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.

- A. 玻璃（强化玻璃）或者陶瓷材质的都可以杯测咖啡。建议的容积大小为207ml到266ml之间，而且所有杯子的大小，形状以及制作材质必须一模一样。强化玻璃杯或者陶瓷杯的直径建议为76-89毫米之间。如果口径过窄或者过宽，教学实验室审核员可以要求教学实验室负责人准备一次小型杯测（5杯批次）来观察，过宽的杯口是否会导致粉层自动破裂，或者过窄的杯口会不会导致上层咖啡粉干燥而无法萃取。杯子同时需要可以和杯测勺搭配使用。SCAA的杯测流程中需要有正确的水粉比例实现最优化的萃取。每6个学生，至少需要准备35个杯测杯。

## XII. Cupping Spoons 杯测勺

- 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.
- A. 杯测勺的容量要求可以承载4-5毫升咖啡液，而且为不活泼金属，不可以增加或者减弱咖啡本身的风味。

## XIII. Cupping Forms 杯测表

- 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.
- A. 杯测表可以是打印版本或者电子版本但是必须是基于SCAA标准的格式。教学实验室负责人必须提供可以拿到杯测表的途径。

## XIV. Spittoons 吐杯

- A. Any receptacle able to contain the cupper's expectoration is acceptable.
- A. 任何提供给杯测者吐掉咖啡液体的容器均能接受。

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)

每6个学生配置2套咖啡闻香瓶(Le Nez Du Café), 考试用咖啡闻香瓶2年须更换1次

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

1套咖啡香气海报-共四张

XVII. Coffee Taster's Flavor Wheel (poster)

咖啡风味轮海报-1张

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)

一套SCAA推荐的食品级有机酸，包括四种酸（柠檬酸，苹果酸，醋酸和磷酸）其中柠檬酸浓度为19%其他成分是水，醋酸是6%其他成分是水，苹果酸和磷酸结晶试剂浓度大于98%。需要有明确食用无害标示的有机酸。

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

SCAA生豆分级海报

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

黑色而且不会反光的生豆分级板 大小为每个学生至少66.7cm\*66.7cm

XXI. One Green Coffee Defects Kit per student.

(The candidate lab must have the answer key available.)

每个学生一套生豆瑕疵演示样本，候选认证教学实验室需要有现成的答案。

XXII. One Roasted Defect Kit per student.

(The candidate lab must have the answer key available.)

每个学生一套熟豆瑕疵演示样本，候选认证教学实验室需要有现成答案。

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

SCAA阿拉比卡生豆瑕疵手册 要求每个学生一本

XXIV. SCAA Standards & Protocols | Documents available at [www.scaa.org](http://www.scaa.org)

SCAA标准和相关流程 | 文档可以在[www.SCAA.org](http://www.SCAA.org) 找到以下内容：

- 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

包括：生豆质量，水质要求，杯测程序，生豆分级，杯测标准，生豆颜色测试

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.

所有的设备都需要达到认证标准。任何临时出现的问题在开课之前都要及时修正。

Contact | 联系方式

Any questions on the Laboratory Inspection & Certification process can be directed to [certification@scaa.org](mailto:certification@scaa.org). 有任何问题请邮件联系 [certification@scaa.org](mailto:certification@scaa.org)