BARISTA SKILLS

Barista skills

FOUNDATION | INTERMEDIATE | PROFESSIONAL

SCAE
COFFEE
DIPLOMA

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PROFESSIONAL

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LEVEL: PROFESSIONAL

OVERVIEW: DESIGNED TO TEST ADVANCED SKILLS AND DETAILED KNOWLEDGE OF THE SCIENCE BEHIND PROCESSES USED, EXPECTED FROM A PROFESSIONAL BARISTA (FOR EXAMPLE, FROM SOMEONE WORKING AS A BARISTA FOR 12 MONTHS OR MORE, WITH SOME MANAGEMENT RESPONSIBILITIES). SUCCESSFUL CANDIDATES SHOULD HAVE A DETAILED UNDERSTANDING OF THEIR INGREDIENTS AND OF THE TECHNIQUES AVAILABLE TO MAXIMISE THE QUALITY OF THE DRINKS MADE. THEY SHOULD BE ABLE TO MANAGE THE SKILLS OF OTHERS TO PRODUCE QUALITY DRINKS AND PROVIDE EXCELLENT CUSTOMER SERVICE. THEY SHOULD BE ABLE TO MAINTAIN THEIR EQUIPMENT TO ENSURE CONTINUED QUALITY. COURSE LENGTH IS ESTIMATED AT 2 - 3 DAYS.

Introduction to Coffee, Barista Foundation, and Intermediate Brewing and Grinding are recommended (but not mandatory) pre-requisite modules. Holding the Intermediate Barista Certification is a mandatory requirement. All knowledge and skill from these modules will be assumed as being held and may be tested through the practical and/or written assessments.

BLOOMS TAXONOMY: Applying / Analyzing / Evaluating

Recommended reading:

CODE/ MODULE	SUB CODE	KNOWLEDGE/SKILL REQUIRED	STANDARDS
3.01 COFFEE BEANS	3.01.1	Awareness of the components of blend/single origin of coffee used (variety/origin/process).	Can describe beans/blend in terms of their variety, origin and processing method used.
	3.01.2	Awareness of roast colour/degree, of coffee used (light, medium, dark).	Can describe beans/blends in terms of their roast degree.
	3.01.3	Understanding of what various beans/blend components contribute to flavour and mouthfeel.	Can explain the flavours delivered by the variety, origin, processing and roast, of the bean/s being used Can describe a blend of their own in terms of beans variety, origin, processing and roast and the desired flavour and mouthfeel this would achieve.
	3.01.4	Understanding of how changes in brewing parameters affect flavour from differing varieties, origins, processes and roasts.	Adapts brewing parameters (dose, grind texture, water quantity, water temperature, pressure (if machine allows)) to achieve desired flavour and body.
	3.01.5	Understanding of the various decaffeination processes.	Offers correct advise to customers on the various decaffeination processes.
	3.01.6	Understanding of how freshness affects the extraction process and espresso flavor.	Can distinguish coffee that is too fresh or stale by visual clues during its extraction, and flavour. Uses techniques to maintain freshness and achieve desired flavour in beans/blends. Uses techniques to maintain freshness in slow-selling beans/blends (guest blends, single origins, decaffeinated).
	3.01.7	Understanding of how different packaging methods affect freshness.	Selects packaging that maximises self life.
	3.01.8	Awareness of how climatic condition and environmental condition affect freshness.	Stores away from extremes of heat and cold.
3.02 WORKSPACE MANAGEMENT	3.02.1	Analysis of café layout - to ensure speed and efficiency, good workflow and smooth customer traffic.	Identifies problems with café layout. Adjusts café layout to correct problems related to speed, efficiency, workflow and customer traffic.
3.03 GRINDING, DOSING AND TAMPING	3.03.1	Evaluation of various grinder features – including motor speed, size and types of burrs (flat or conical), grind distribution, degree of static and waste, construction, ease of use (for grinders with a dosing chamber and on-demand grinders).	Selects grinder based on advantages and disadvantages related to the needs of the situation it will be used for.
	3.03.2	Evaluation of features of flat and conical burrs from a scientific perspective (motor speed, particle size, heat dispersion, burr replacement).	Selects type of burrs based on advantages and disadvantages related to the needs of the situation they will be used for.

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	3.03.3	Evaluation of features of different styles of hand tamp.	Selects hand tamp based on ease of use and diameter of filter basket it will be used with.
	3.03.4	Evaluation of the effects of different calibrations for grind and dose.	Recognises that changing the grind may also change dose size (with both volumetric and time based dosing). Recognises that changing the dose causes changes to espresso flavour and body. Recognises the grinder adjustments needed for different degrees of roast, and resultant different bean density.
	3.03.5	Analysis of problems other baristas have with their dosing and tamping techniques.	Identifies problems other baristas have with dosing and tamping. Offers correct advice and solutions related to dosing and tamping.
3.04 EXTRACTION & BREWING	3.04.1	Evaluation of latest features on espresso machines (temperature stability, pressure profiling, multiple boilers, PID systems, pre-infusion).	Recognises that changing in temperature and pressure during extraction can alter espresso flavour and body. Can judge what adjustments need to be made on an espresso machine to achieve a desired flavour and body in the espresso.
	3.04.2	Evaluation of the extraction measurement tools and techniques to assess espresso (espresso brewing charts and formulas, measurement devices and software). Understanding of the process of measurement using such tools.	Can demonstrate the use of extraction measurement tools (digital/optical refractometer or TDS meter) and techniques to assist in monitoring the extraction process. Understands the meaning of "extraction percentage", "total dissolved solids" and "espresso brew formula".
	3.04.3	Understanding of the interrelationship of the various extraction parameters and how changes in one may cause changes in the other.	Understands that changes to the mass to energy ratio (the relationship between the quantity of ground coffee and the temperature of the hot water), will change extraction %. Understand the effect of long and short extraction ratios on espresso flavour/texture. Understand the principle of a "balanced" extraction. Understand how to measure extraction percentages in espresso and why an extraction of 18-22% is considered balanced.
	3.04.4	Analysis of problems other baristas have with their extraction techniques.	Can identify problems other baristas have with their extraction techniques. Offers correct advice and solutions related to the extracting espresso.
3.05 MILK TECHNIQUES	3.05.1	Understanding of the components of milk and its production process.	Understand pastuerisation, ultra heat treatment, and homogenisation. Be aware of the "route to market" of milk and its shelf life. Understands use-by dates and shelf life of milk as well as storage requirements – from supplier to barista to customer.

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	3.05.2	Evaluation why milk foams and sometimes doesn't – from a scientific perspective.	Understand the role of protein in forming foam and fat for coating the foam improving mouthfeel, drainage and flavour. Understand what implications this may have for a range of milk alternatives in their performance for a barista. Can identify deterioration in foam quality caused by aging milk. Can identify milk that will not foam as it has "gone off" (Lipolosis and Proteolysis). Understand how excessive heat denatures milk protein deteriorating flavor. Understand why some customers may be intolerant to lactose. Not producing the enzyme lactase, required to break down lactose into glucose and glactose.
	3.05.3	Demonstration of techniques to consistently produce high quality 'microfoam'.	Can consistently deliver the highest quality foam standards as per the CDS Foam Quality Guide.
	3.05.4	Demonstration of 'freepouring' two latte art patterns to a consistently good standard – on two consecutive drinks.	'Freepours' latte art patterns consistently to a reasonable standard or higher on CDS Latte Art Standards.
	3.05.5	Demonstration of good techniques for improving micro-foam and maintaining consistency in drinks.	Swirls milk in the jug before pouring when required. Splits the milk' into two separate jugs before pouring, to obtain even foam levels on drinks, when required.
	3.05.6	Analysis of problems other baristas have with their milk techniques.	Can identify problems other baristas have with their milk techniques. Offers correct advice and solutions related to texturing and heating milk.
3.06 BARISTA MENU	3.06.1	Understanding of standard drinks range as well as regional variations around the world.	Can describe variations to standard drinks range.
	3.06.1	Demonstration of good techniques to prepare complex orders of drinks quickly and efficiently.	Standard TBC
	3.06.3	Evaluation of espresso menus with regard to content and design.	Can design and write a menu. Selects drinks (and prices) based on thorough research.
3.07 HYGIENE, HEALTH & SAFETY	3.07.1	Demonstration of organisational and operational policies and procedures (for beverage preparation and service, cleaning and storage) – to keep everything in the espresso workspace safe and hygienic.	Documents and implements policies and procedures related to hygiene and safety – taking local laws and manufacturer's instructions into consideration. Trains staff in policies and procedure related to safety and hygiene.
2.08 CUSTOMER SERVICE	2.08.1	Evaluation of customer service provided to ensure quality drinks, speed of service, and exceeding customer expectations.	Documents and implements policies and procedures related to customer service. Can develop methods of assessing customer satisfaction. Can evaluate work procedures and systems as to their suitability for good customer service. Develops methods for collecting and evaluating feedback from customers – and implements necessary changes.
	2.08.2	Demonstration of consistently exceptional customer service when communicating with customers.	Communicates accurately on a range of coffee-related topics – while preparing and serving orders. Can utilise onselling and upselling techniques.

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	2.08.3	Can develop policy for complaint handling and advise on techniques for dealing with complaints.	Develops steps for dealing with complaints and evaluating their effectiveness. Understands listening techniques and empowerment systems.
3.09 CLEANING, MAINTENANCE & TROUBLE-SHOOTING	3.09.1	Evaluation of cleaning and maintenance procedures.	Documents and implements policies and procedures related to cleaning and maintenance – taking local laws and manufacturer's instructions into consideration.
	3.09.2	Demonstration of good techniques for maintenance of the espresso machine.	Takes grinding mechanism apart for cleaning and to replace burrs when worn. Takes dosing mechanism apart for thorough cleaning and to replace the spring in the dosing lever when broken.
	3.09.3	Understanding of the need water filtration and the various methods available.	Can evaluate the effectiveness of carbon, ion exchange and reverse osmosis filters and their appropriateness for reducing scale and improving water quality.
3.10 FINANCIAL MANAGEMENT	3.10.1	Understanding of the costs related to the price of a drink – including cost of ingredients, staff costs, overheads (rent/rates, electricity, gas, rates insurance etc.) and taxes.	Analyses prices of drinks to ensure appropriate profit is made. Develops standardised recipes/specifications to evaluate profits, control costs, and maintain consistency.
	3.10.2	Understanding of factors other than costs that can impact on profit.	Implements policies and procedures to minimise spoilage, waste and theft.
	3.10.3	Analysis of supply sources and ordering procedures.	Selects appropriate suppliers (quality, price, reliability) and implements appropriate delivery procedures.
	3.10.4	Demonstration good techniques in staff management.	Documents policies and procedures related to staff. Implements systems for rostering.

READING LIST

TITLE	AUTHOR	FORMAT
FOUNDATION:		
Barista Bible	Christine Cottrell	Book
The Ultimate Coffee Book for Beginners & Professionals	Johanna Wechselberger, Tobias Hierl	Book
Coffee with Tim Wendelboe	Tim Wendelboe	Book
Coffee: Beans, barista & latte art	Coffee Community	iPad app
Espresso Quest	Instaurator	Book
INTERMEDIATE:		
The Professional Barista's Handbook	Scott Rao	Book
The Espresso Coffee Production System	Franco E Mauro Bazzara	Book
The Coffee Tasting Book	Franco E Mauro Bazzara	Book
Coffee Basics Posters	Kaffe Konsulat	Posters
Espresso Quest	Instaurator	Book
PROFESSIONAL:		
Espresso Coffee: The Science of Quality	Andrea Illy & Rinantonio Viani	Book
The Coffee Brewing Handbook	Ted Lingle	Book
The Coffee Cupper's Handbook	Ted Lingle	Book
McGee on Food & Cooking	Harold McGee	Book
Some Aspects of Espresso Extraction	Jim Schulman	Article/on-line

BARISTA FOAM STANDARDS

MILKING STANDARD	PICTURE REFERENCE	DESCRIPTION
LEVEL 1: Excellent milk standard		Microfoam produced smooth shiny and moist. No visible bubbles.
LEVEL 2: Very good milk standard		Microfoam produced smooth and moist. Very few small bubbles <0.5mm diameter.
LEVEL 3: Acceptable milk standard (Minimum acceptable to pass Foundation requirements)		Microfoam produced smooth and moist. Microfoam texture with many small (<1mm diameter) and very few larger (1-2mm diameter) bubbles.
LEVEL 4: Unacceptable milk standard (Failing requirement for Foundation level)		Many large (>1mm + diameter) bubbles present. Texture uneven/dull/dry.
LEVEL 5: Very poor milk standard (Failing requirement for Foundation level)		Many large (>1mm + diameter) bubbles present. Very dry and uneven looking like it has been placed on by spoon/spatula rather than poured

LATTE ART STANDARDS

LATTE ART STANDARD	EXCELLENT STANDARD	REASONABLE STANDARD	UNACCEPTABLE STANDARD
Contrast	• Sharp contrast between clean white foam of the pattern against the rich colour of the crèma. (Crèma colour may vary based on coffee used). • This sharp contrast should be demonstrated throughout the majority of the pattern to be considered excellent.	• The pattern can be clearly identified but there is a degree of "marbling" between the white foam and the brown crèma. • There are areas of "beige" where the crèma and foam have mixed	• Contrast is generally poor so that the pattern is hard to distinguish. • Much mixing of the white foam into the crèma.
Harmony, size and position in cup	• For right-handed drinkers the pattern should ideally be presented with its base at 6 o'clock (tolerance between 5-7 o'clock) and the handle at 3 o'clock. • The size of the pattern should suit the size of the top of the cup, big enough to fill the space while still leaving space to the edges to "frame" the design. • If multiple patterns are poured in the cup then they should positioned in a complementary manner to each other, giving an overall attractive design.	• For right-handed drinkers the pattern is presented with its base between 4-8 o'clock • The size of the pattern is considered slightly too small for the space available. • The size of the pattern is too big for the cup and looses its "frame" of crèma. • The pattern in poorly positioned in the cup e.g. to one side of the cup or touching the side/top/base. • Multiple patterns are unbalanced in their size or quality, but still clearly identifiable.	• For a right-handed drinker the pattern is poured upside down when the handle is positioned at 3 o'clock.
Symmetry of pattern (if required)	• Key free pour patterns such as hearts, rosettas and tulips need to have good symmetry to be considered excellent. The pattern should be a good mirror image if cut down the middle. • "Absolute" symmetry is not assessed, e.g. in each leaf of a rosetta, but symmetry in the overall shape of the pattern.	• Symmetry of the pattern is fair but not considered excellent	• Symmetry is considered poor. • Pattern is hard to distinguish and so symmetry is difficult to assess.
Foam quality	• CDS Foam Quality Level 1-2	• CDS Foam Quality Level 3-4	• CDS Foam Quality Level 5-6
Identification of pattern	• Pattern is clearly identified and attractive	• Pattern is clearly identified	• Pattern is not clearly identified