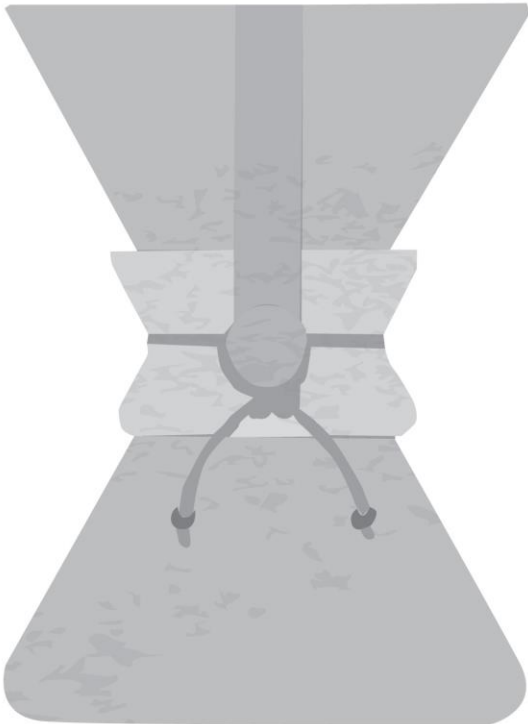


BREWING

Brewing





SCAE COFFEE DIPLOMA: BREWING

OVERVIEW: DESIGNED TO INTRODUCE THE **INTERMEDIATE** INTO THE CORE SKILLS AND EQUIPMENT REQUIRED TO PRODUCE GREAT BREWED COFFEE AND UNDERSTAND HOW TO CHART DIFFERENT BREW STYLES. COURSES DETAILING THE INFORMATION REQUIRED TO ATTEMPT THE QUALIFICATION ARE EXPECTED TO LAST 1 DAY

Ideally candidates should hold a general understanding of brewing and grinder coffee for all brewing methods.

Recommended Reading: The Basics of Brewing Coffee, Ted Lingle

BLOOMS TAXONOMY: Remembering / Understanding.

SUB CODE	KNOWLEDGE/SKILL REQUIRED	STANDARDS	REFERENCE
1.0 GRINDING			
1.01.01	ELEMENTARY ASPECTS OF COFFEE GRINDING Aware of grind size and extraction surface area, how this impacts the final drink.	Filter 4-6 minutes, single cup 1-3 minutes, espresso 20-30 seconds	The Basics of Brewing Coffee, Ted Lingle
1.01.02	Aware of the influences of under/over extraction due to particle size.	Demonstrate what impacts an under-extracted cup i.e. grind size, brew time, water quality and an over-extracted cup	
1.01.03	Aware of particle size by brew method in Microns.	Show this on a graph where time = brew method	
1.01.04	Aware of the aroma in cells and impact of time.	Understand the amount of aromas lost over time, i.e. 60% in 15 minutes for filter, and 48% in 2 minutes for espresso	
1.01.05	Aware of heat build-up and controls while grinding	Discuss heated burrs in espresso for consistency. Discuss ways of reducing heat in larger production methods, such as liquid nitrogen and water cooling	
1.02.01	GRINDER/BURR TYPES Aware of the different grinder types in the market	Roller = mass production, Flat = filter or espresso, Conical = espresso	
1.02.02	Aware of the different type of grinder burrs on the market and application	Roller, Flat, Conical	
1.03.01	GRIND ANALYSIS Aware of the different types of grind analysis	Laser and Sieve. Show both on slide and explain the application. Pros and cons	



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2.0 EFFECTS OF ROASTING ON THE COFFEE BEAN											
2.01.01	ROAST LEVEL Understand the different roast levels and the impact on the brew	Light roast would extract less than a dark roast, as it has less solubles to give off <table border="1"> <thead> <tr> <th><u>Point in Roast Cycle</u></th> <th><u>Colour (Agton)</u></th> </tr> </thead> <tbody> <tr> <td>Just after 1st crack</td> <td>65 - 70</td> </tr> <tr> <td>Between 1st and 2nd crack</td> <td>55 - 60</td> </tr> <tr> <td>30 seconds + after 1st crack</td> <td>45 - 50</td> </tr> </tbody> </table>	<u>Point in Roast Cycle</u>	<u>Colour (Agton)</u>	Just after 1st crack	65 - 70	Between 1st and 2nd crack	55 - 60	30 seconds + after 1st crack	45 - 50	
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2.01.02	Roast level impact on grind size	Feel each of the above grind sample to see the impact of roast level on the grind break up									
3.0 RESEARCH HISTORY											
3.01.01	HISTORY To cover the historical journey of the brewing research form 1952	Cover this on one slide explaining when the research took place and what happened since in all countries all over the world. Also include the research that the SCAE did in 2011	European Coffee Extraction Preferences: SCAE 2013								
4.0 BREWING PROCESS											
4.01.01	BREWING Understand what happens during the brewing process	Explain what happens from the second the water contacts the grounds until the brew has finished. Explain which solids come out when	Water quality Handbook: SCAA								
4.01.02	Taste a brew split into 3 stages = perfect cup										
4.01.03	Understand what happens when you do not use enough coffee	Brew 3 litres of coffee, but only use enough coffee for 2 litres, so you can show the over-extraction in the last stage if you do not use enough coffee									
4.01.04	Understand the difference between Strength and Extraction	Strength = mouth-feel, and Extraction = taste									
4.01.05	Understand the maximum you can extract out of a bean	The maximum you can extract is around 30%									



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4.01.06	Understand the ideal extraction	18% to 22%	
4.01.07	Understand the correct strength range	1.2 and upwards	
5.0 BREWING GUIDELINES			
5.01.01	WATER TO COFFEE RATIO Basic awareness that sufficient ground coffee is required, per litre of water, to make a quality cup of coffee	SCAE Gold cup standard: 55-60 grams per litre	
5.01.02	Basic awareness of the quantity of coffee commonly used for espresso	7-10 grams of coffee commonly used dependent on choice, culture, and coffee used	
5.02.01	GRIND SIZE Aware that grind size affects the rate of extraction (based on surface area) and the speed water can flow through	Include a slide showing grind size vs method and brew time	
5.03.01	BREW TIME Aware that the amount of time the water is in contact with the coffee will allow different quantity of solids to be dissolved	Filter 4-6 minutes, Single Cup 1-3 minutes, Espresso 25-30 seconds	
5.03.02	Aware that the amount of time the water is in contact with the coffee is often controlled by grind size		
5.04.01	WATER TEMPERATURE Aware that the correct water temperature of water is required to dissolve the desired flavours from the coffee	92c - 96c	
5.05.01	BREW TURBULENCE Aware how turbulence can impact the final cup, more turbulence = stronger cup		
5.06.01	WATER QUALITY Aware that bad quality water can result in a bad cup		
5.06.02	Aware of the taste of soft water and hard water	Taste both hard water and soft water cool, do not brew. You can find these at a local supermarket (maybe explained as dry residue at 180c)	
5.06.03	Aware of the SCAE brewing water standards	Show a slide to the recommended SCAE water standards	
5.06.04	Filter method, discuss each method	Cloth, Paper, Screen, Seated Cup, Metal, Brew Chamber	



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6.0 BREWING AND CHARTING COFFEE			
6.01.01	CHARTING FILTER COFFEE Attendees have to demonstrate the knowledge of brewing good coffee and charting	Demonstrate how to brew and chart filter coffee into the SCAE box. Brew between 18% and 22% extraction at a minimum of 50g per litre	
6.01.02	Understand that you can brew and chart all brewing methods	Paper, Cloth, Screen, Metal, Espresso. Understand what you have to do to each brew method before testing	
6.02.01	CHARTING ESPRESSO Espresso guidelines	9% to 11% strength at 18 to 22% extraction	
6.02.02	Charting espresso, instruction only	Brew and chart espresso into the box, demonstration only in this session	