Cicerone® Certification Program
International Certified Beer Server Syllabus

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This syllabus outlines the knowledge required of those preparing for the Certified Beer Server exam outside of the United States, Canada, the UK, Australia, or New Zealand. While this list is comprehensive in its scope of content, further study beyond the syllabus is necessary to fully understand each topic. The content tested on the Certified Beer Server exam is a subset of the information presented within the Master Cicerone® Syllabus, and individual syllabi for all four levels of the program may be found on the cicerone.org website.

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Full Syllabus

I. Keeping and Serving Beer

A. Serving alcohol
   1. Alcohol's effects
      a. Absorption and elimination
      b. Physical and behavioral indicators
   2. Responsible serving practices
      a. Provide accurate ABV information to consumers
      b. Adjust serving size based on ABV

B. Beer storage
   1. Beer is best consumed fresh
      a. When beer is released from the brewery, it is ready to drink
      b. A very few strong or intensely flavoured beers may age in ways that make them interesting to drink months or years later if properly cellared
   2. Freshness can be preserved and enhanced by wholesaler and retailer actions
      a. Rotate inventory
         i. Ensure that beer is consumed in the order of dating
         ii. Remove out of date products from service inventory
         iii. When beers lack an expiration date:
            - Non-pasteurised draught beer about 45-60 days (refrigerated)
            - Pasteurised draught beer about 90-120 days (refrigerated)
            - Bottled beer:
               - If kept refrigerated, can be good for up to six months
               - When not refrigerated or if subjected to other stresses, may be noticeably off after three months
               - Taste aged product against fresh product to determine deterioration
         iv. Train staff to encourage/sell/promote all beers offered
      b. Store beer properly
         i. Refrigerated storage is best for all beers at all times. Required for draught beer and many craft beers
         ii. Non-refrigerated storage accelerates aging and development of off flavours
            - With time, all beers will develop signs of oxidation (papery, wet cardboard flavours)
         iii. Bottled beers are subject to skunking
            - Caused by sunlight and fluorescent light
            - Most noticeable in the aroma of the beer
            - Brown glass blocks 98% of the wavelengths of light that cause skunking, and therefore offers superior protection to clear and green glass
            - Green glass blocks 20% of the wavelengths that cause skunking
            - Clear glass offers no protection against skunking
            - Skunking may be evident after a few minutes of light exposure

- Cans, ceramic bottles, and bottles in closed case boxes that completely shield beer from light give maximum protection from skunking

c. Serve beer properly
   i. Draught beer must be served using CO_2 or a CO_2-nitrogen mix at the proper pressure setting.
   ii. Compressed air should never be used instead of CO_2 or a CO_2-nitrogen mix in a draught dispense system
   iii. A party pump limits the flavour stability of the beer to **less than one day** because oxygen is put in contact with the beer

C. Draught systems
1. Key elements
   a. Keg
   b. Coupler
   c. FOB (Foam-on-beer) detector
   d. Faucet
2. Draught system operation
   a. Standard temperature of 3 °C (38 °F)
   b. All kegs should be in the cooler for 24 hours prior to service to prevent foaming
   c. Gas pressure applied to keg should only be set or adjusted by a draught-trained professional
3. Basic troubleshooting
   a. Beer has been in cooler for 24 hours
   b. Coupler is properly engaged
   c. No kinks or pinches in hose from coupler to wall
   d. FOB, if present, properly set for service
   e. If beer is still pouring badly, contact a draught-trained professional for assistance
4. Draught system maintenance
   a. Draught systems need to be cleaned to prevent development of off flavours in beer and to ensure proper operation of the draught system
   b. Cleaning required every 14 days
   c. Due to hazardous nature of cleaning solutions, never attempt to pour beer prior to full completion of draught system cleaning

D. Beer glassware
1. Select appropriate glassware
   a. Size
      i. Based on style and alcohol content (stronger beers, smaller glass)
      ii. Provide room for an appropriately sized head
   b. Shape
      i. Cultural and historical traditions connect certain glasses to specific styles
   c. Brand
      i. Branded glasses matched to beer
2. Use beer clean glassware
   a. Glass cleaning procedure

i. Empty glass into open drain
ii. Wash with non-petroleum based (sudsless) soap and brush
iii. Rinse in cold water, heel in, heel out
iv. Rinse in sanitizer, heel in, heel out
v. Dry inverted on rack so air circulates inside
vi. Rinse with cold water immediately before dispense

b. Glass cleaning procedure – glass washing machine
i. Use machine dedicated to beer glassware ONLY (do not clean dishes or glassware with food or dairy residue)
ii. Use correct detergent and sanitizer—check concentrations daily or follow detergent and sanitizer supplier recommendations
iii. Water temperature should range between 54-60 °C (130-140 °F). High temperature machines designed to operate at 82 °C (180 °F) may be used in place of chemical sanitizers (though local health departments may have additional requirements)
iv. Maintain washer to assure proper water flow through each nozzle and washer arm
v. Regularly service machine following manufacturer's guidelines to ensure proper operation

c. Checking glass for "beer clean"
i. Without beer
- Sheeting (wet glass, empty, water should sheet off of glass evenly; formation of droplets or webbing indicates not beer clean)
- Salt test (wet glass, sprinkle salt throughout; places where salt does not adhere are not beer clean)

ii. With beer
- Head size, shape, retention
- Bubbles clinging to sides of glass (in liquid beer) indicate **not** beer clean
- During consumption, lace will cling to the side of a beer clean glass following each sip

d. Preparation to serve
i. Glass temperature
- Room temperature and chilled glasses are acceptable
- Frozen/frosted glasses are not recommended: causes foaming, makes beer too cold, frozen water or sanitizer may be present

ii. Cold water rinse of glass before filling
- Removes residual sanitizer
- Cools glasses that may be warm from washing
- Aids ideal head formation and retention

E. Serving bottled beer
1. Prepare for service
a. Bottle-conditioned beer should be stored upright prior to service
b. If possible, store beer at ideal serving temperature as dictated by style, otherwise store all beer under refrigeration (6 °C/43 °F or less)
2. Examine bottle

a. Look for white flakes (snow-like) which can indicate old, unstable beer. Do not serve beer in this condition
b. Look for a thin ring of gunk at liquid level in neck—generally indicative of a bad bottle if present. Do not serve beer in this condition
c. Check for yeast on bottom of bottle
    i. Retain yeast in bottle unless:
        • Consumer requests yeast to be poured
        • Style (e.g., Weissbier) is traditionally poured with yeast
    ii. To pour yeast, rouse by swirling, rolling, or inverting

3. Opening bottle: twist-off, pry-off, cork, combo
    a. Twist-off caps
        i. Twist off by hand
        ii. Napkin may be used to aid grip and protect hand
    b. Pry-off caps
        i. Prefer openers with a bar or other lift area at least 0.5 cm (¼ inch) wide to prevent possibility of breaking the bottle during opening
        ii. Lift in one motion
    c. Mushroom cork
        i. Remove wire cage by untwisting the tab
        ii. Remove cork by hand—napkin may aid grip
        iii. Be gentle so as not to disturb sediment and make beer volatile
        iv. Practice cork safety—keep bottle pointed away from consumer at all times
    d. Cap plus cork: corkscrew will be required after removing cap
    e. Present the cork (always) or the cap of a rare, unusual or new beer, to the consumer
    f. Check bottle lip: do not serve beer from bottles with broken/damaged lips
    g. Also examine bottle lip for rust, dried beer, or yeast that could affect flavour or appearance of beer
4. Pouring bottled beer
    a. Filtered beer
        i. Beers bottled without yeast or other sediment—the entire contents of the bottle can be poured into the glass
        ii. Hold glass at 45-degree angle, pour down the side until glass is half full
        iii. Gently tilt glass upright and pour down the middle to create approximately one inch (2.5 cm) of foam head on the beer as the pour finishes. Weizens and Belgian ales traditionally have two to four inches (5-10 cm) of head
    b. Unfiltered beers
        i. Some beers are packaged with yeast in the bottle or completely unfiltered
        ii. Unfiltered beer should still be poured using the method described above in section I.E.4.a
        iii. In most cases, yeast should be retained in the bottle. Be prepared to stop pouring when the yeast moves toward the top of the bottle
        iv. When in doubt about pouring yeast, ask the consumer their preference

F. Serving draught beer
1. Pouring a beer
    a. Hold glass at 45-degree angle, 2.5 cm (one inch) below the tap faucet

b. Grip faucet handle near the base, pull forward to the fully open position to start the flow of beer—when a faucet is only open partially, beer will pour foamy
c. Pour down the side until glass is half full
d. While continuing to pour gently tilt glass upright and pour down the middle to create appropriate amount of head on the beer as the pour finishes
e. Close faucet as foam cap reaches the top of the glass to prevent beer waste
f. **Never** put faucet in contact with the glass or allow it to become immersed in beer in the glass

2. Pouring nitro beer
   a. Hold glass at 45-degree angle, 2.5 cm (one inch) below the faucet. Do not allow faucet to come in contact with the glass or its contents during dispense
   b. Pull tap handle forward to the fully open position to start the flow of beer
   c. Pour down the side until glass is three-quarters full
   d. Settle for 1-2 minutes, then pour down the middle to create appropriate amount of head on the beer as the pour finishes
3. Changing a keg (same product)
   a. Kegs must be chilled to draught system operating temperature (generally 3 °C/38 °F) before tapping and serving—general guideline is 24 hours in cooler before serving
   b. On common American and import Sankey kegs: grip keg coupler handle, pull out and raise to the "up" or "off" position to disengage. Turn the coupler a quarter turn (90 degrees) counterclockwise to unseat. Lift off of the keg
   c. Seat the coupler on a new keg. Turn clockwise a quarter turn (90 degrees) to lock the coupler in place, then lower the coupler handle to the "down" or "on" position to engage
   d. In long-draw systems that use them, the foam-on-beer (FOB) detector for the keg needs to be reset after a keg change. This is usually done by venting the FOB mechanism to release foam and gas from the chamber

II. Beer Styles

A. Understanding beer styles
   1. The historical development of beer styles
      a. First driven by available ingredients, equipment, and water
      b. Shaped by technology, taxes and regulations, culture, consumer appeal, etc.

B. Style parameters
   1. Knowledge requirements
      a. For each style listed in the syllabus candidates should possess:
         i. Qualitative knowledge of perceived bitterness using the following descriptors: low, moderate, pronounced, assertive, or highly assertive[1]
         ii. Qualitative knowledge of colour using the following descriptors: straw, gold, amber, brown, or black
         iii. Qualitative knowledge of alcohol content using the following descriptors[2]:

[1] Test questions will reference IBUs as catalogued by the 2015 BJCP guidelines in addition to perceived bitterness levels as presented in the Certified Beer Server Syllabus

[2] Alcohol level descriptors correspond to the following ABV ranges: Lower – <4.5%; Normal – 4.5-6.0%; Elevated – 6.1-7.5%; High – 7.6-10.0%; Very high – >10.0%

lower, normal, elevated, high, or very high[3]

2. Quantitative parameters of beer character
   a. Alcohol content
      i. By volume
      ii. By weight
   b. International Bitterness Units
   c. EBC/SRM Colour
3. Qualitative parameters of beer character
   a. Aroma
   b. Flavour
   c. Aftertaste
   d. Mouthfeel
   e. Perceived bitterness
   f. Appearance

C. History, characteristics, and flavour attributes of styles by region[4]
1. Belgium and France
   a. Lambic beers
      i. Gueuze (PB – Low; C – Straw to gold; ABV – Normal to elevated)
      ii. Fruit Lambic (Kriek, Framboise, etc.) (PB – Low; C – Varies with fruit; ABV – Normal to elevated)
   b. Flanders ales
      i. Flanders Red Ale (PB – Low; C – Red-brown; ABV – Normal to elevated)
   c. Trappist and abbey ales
      i. Belgian Dubbel (PB – Low; C – Light amber to dark amber; ABV – Elevated)
      ii. Belgian Tripel (PB – Moderate; C – Straw to gold; ABV – High)
   d. Pale Belgian beers
      i. Belgian Blond Ale (PB – Low; C – Light gold to gold; ABV – Elevated)
      ii. Belgian Golden Strong Ale (PB – Moderate; C – Straw to gold; ABV – High to very high)
   e. Unique beers
      i. Saison (PB – Moderate; C – Light gold to amber; ABV – Normal to elevated)
      ii. Witbier (PB – Low; C – Straw to light gold, made white by haze; ABV – Normal)
2. Britain and Ireland
   a. England
      i. Pale ales
         • Best Bitter (PB – Pronounced; C – Gold to amber; ABV – Lower to normal)
         • English IPA (PB – Assertive; C – Gold to amber; ABV – Normal to elevated)

[3] Test questions will reference ABV values as cataloged by the 2015 BJCP guidelines in addition to alcohol level descriptors as presented in the Certified Beer Server Syllabus

[4] Key for style descriptors: PB – Perceived Bitterness; C – Colour; ABV – Alcohol level

ii. Dark ales
- British Brown Ale (PB – Moderate; C – Amber to brown; ABV – Lower to normal)
- Sweet Stout (PB – Low to moderate; C – Dark brown to black; ABV – Lower to normal)
- Oatmeal Stout (PB – Moderate; C – Brown to black; ABV – Lower to normal)

b. Scotland
i. Wee Heavy (PB – Low; C – Amber to brown; ABV – Elevated to high)

c. Ireland
i. Irish Stout (PB – Pronounced; C – Brown to black; ABV – Lower to normal)

3. Germany, Czech Republic, and Austria
a. Lagers
i. Pale
- German Pils (PB – Proounced; C – Straw to light gold; ABV – Normal)
- Munich Helles (PB – Moderate; C – Straw to light gold; ABV – Normal)
- Czech Premium Pale Lager (PB – Pronounced; C – Straw to Gold; ABV – Lower to normal)

ii. Amber or dark
- Märzen (PB – Moderate; C – Gold to dark amber; ABV – Normal to elevated)

iii. Bocks
- Helles Bock (PB – Moderate; C – Gold to light amber; ABV – Elevated)
- Doppelbock (PB – Low; C – Gold to brown; ABV – Elevated to high)

b. Ales
i. Wheat beers
- Weissbier (PB – Low; C – Straw to gold; ABV – Normal)
- Berliner Weisse (PB – Low; C – Straw; ABV – Lower)
- Gose (PB – Low; C – Straw to light gold; ABV – Lower to normal)

ii. Rhine Valley ales
- Kölsch (PB – Moderate; C – Straw to light gold; ABV – Normal)

4. United States
a. Pale lagers
i. American Light Lager (PB – Low; C – Straw; ABV – Lower)

b. Pale ales
i. American Wheat Beer (PB – Moderate; C – Straw to gold; ABV – Lower to normal)
ii. American Blonde Ale (PB – Moderate; C – Straw to gold; ABV – Lower to normal)
iii. American Pale Ale (PB – Pronounced; C – Light gold to light amber; ABV – Normal)
iv. American Amber Ale (PB – Pronounced; C – Light amber to dark amber;

ABV – Normal)

c. IPAs
   i. American IPA (PB – Assertive; C – Gold to amber; ABV – Normal to elevated)
   ii. Double IPA (PB – Highly assertive; C – Gold to dark amber; ABV – High)

d. Dark ales
   i. American Brown Ale (PB – Moderate; C – Dark amber to black; ABV – Normal)
   ii. American Porter (PB – Pronounced; C – Brown to black; ABV – Normal to elevated)
   iii. American Stout (PB – Assertive; C – Dark brown to black; ABV – Normal to elevated)
   iv. Imperial Stout (PB – Pronounced; C – Dark brown to black; ABV – High to very high)

e. Strong ales
   i. American Barleywine (PB – Pronounced; C – Light amber to light brown; ABV – High to very high)

5. Other regions
   a. International
      i. International Pale Lager (PB – Moderate; C – Straw to gold; ABV – Normal)

III. Beer Flavour and Evaluation

A. Taste and flavour
   1. How we perceive flavour
      a. Aroma
      b. Taste
         i. Established
            - Sweet
            - Salty
            - Sour
            - Bitter
            - Umami
         ii. Emerging
            - Fat
      c. Mouthfeel
         i. Body
         ii. Carbonation
   2. Beer evaluation
      a. Components of evaluation
         i. Appearance
         ii. Aroma
         iii. Taste
         iv. Mouthfeel
         v. Aftertaste

b. Key evaluation techniques
i. Aroma techniques
- Distant Sniff: Swirl beer while holding glass 15-20 cm (6-8 inches) away from nose and take one to two short sniffs
- Short Sniff: Swirl beer; bring glass to nose and take one to two short sniffs
- Long Sniff: Swirl beer; bring glass to nose and take one long sniff
- Covered Sniff: Cover glass with hand; swirl beer for three to five seconds; bring glass to nose, remove hand, and sniff

ii. Use consistent background to assess colour and clarity
iii. Beer should reach all parts of tongue during tasting
iv. Flavour perception continues after swallowing

B. Identify normal flavours of beer and their source
1. Malt and grain flavours
a. Pale beer: Uncooked flour, bread dough
b. Golden beer: White bread, wheat bread, water cracker
c. Light amber beer: Bread crust, biscuit, graham cracker
d. Amber beer: Toast, caramel, pie crust
e. Brown beer: Nutty, toffee, chocolate, dark/dried fruit
f. Black beer: Roast, burnt, coffee
2. Hops
a. Bitterness, flavour and aroma effects
b. Traditional regional hop traits
i. American: Piney, citrus, resiny, tropical fruit, catty
ii. English: Earthy, herbal, woodsy
iii. German/Czech: Floral, perfumy, peppery, minty
3. Fermentation flavours
a. Ale versus lager flavours (See Ingredients section IV.A.3.a)
b. Weizen yeast flavour
c. Other yeast and bacteria can contribute to beer flavour

C. Off-flavour knowledge
1. Oxidation
a. Papery/wet cardboard
b. Waxy/lipstick
2. Lightstruck/skunky
3. Dirty draught lines
a. Buttery
b. Vinegar

IV. Beer Ingredients and Brewing Processes

A. Ingredients
1. Grains
a. Malt
i. Malt is produced by sprouting and drying cereal grain such as barley or wheat
ii. Different shades and flavours of malt are produced by variations in kilning

b. Unmalted grains such as corn or rice are sometimes used

2. Hops
   a. Hop character in beer
      i. Depending on use, hops can contribute bitterness, flavour, and/or aroma
      ii. Aroma and flavour vary with variety
   b. Basic anatomy of hop plant and cone
   c. Major growing regions
      i. Germany
      ii. Czech Republic
      iii. Britain
      iv. United States
      v. Australia and New Zealand
3. Yeast
   a. Taxonomy
      i. Ale yeast
         - *Saccharomyces cerevisiae*
         - Generally produce esters in levels which give fruity flavours to finished beers
         - Some possess a phenolic off-flavour gene (POF+) which results in production of phenolic flavours such as clove, nutmeg, white pepper
      ii. Lager yeast
         - *Saccharomyces pastorianus* also known as *Saccharomyces carlsbergensis*
         - Generally do not produce esters or phenols in appreciable quantities, resulting in a focus on malt and hop character
   b. Other yeast and bacteria can contribute to beer flavour
4. Water
   a. Water makes up 90+% of the weight of beer
   b. All water contains traces of minerals
      i. Many are essential to beer production
      ii. Several have desirable flavour impact
   c. Modern brewers adjust water chemistry to fit the requirements of the beer they brew

V. Pairing Beer with Food

No single model perfectly explains all the dynamics of beer and food pairing. Candidates at this level should understand that beer and food work well together, but do not need to possess knowledge of specific beer and food interactions.