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| **39-40hr weeks** | **PREMIER BARBER COLLEGE CLASS A BARBER 1500 HR CURRICULUM**  |  |  |
| **WEEK #** | **MATERIAL COVERED** | **#OF HOURS (THEORY)** | **#OF HOURS (PRACTICAL)** |
|   **1**History of Barbering | Help in predicting and understanding upcoming trends |   1 |  |
| Hygiene and Good Grooming | Daily routine of Healthful Habits Review questions and Handouts |  1 |  |
| Shampooing and rinsing | Client protection; analysis shampoo and condition |  |  5 |
| Barber Implements | QUATS: Implement Disinfection &Clipper/Outliner |  1 |  |
| Cleansing | Blow-dryer/Marcel/Curling Iron Holding |  |  5 |
| First Aid and Safety Precautions | Haircutting Shears/Clippers: How to Hold |  |  7 |
| Scientific Fundamentals of Barbering | Equipment and Supplies used in Barbering |  2 |  |
| Shampooing and rinsing | Chemical Draping/Scalp analysis |  |  3 |
| Scientific Fundamentals of Barbering | Sustained Cut: Client/Barber |  |  6 |
| Barber Implements | Practice Finger& Shear Technique w/Manikin |  |   8 |
|   **2**Sanitary Professional Techniques | Haircutting Shears/Clippers: How to Hold |  2 |  |
| Clipping | Sustained Cut: Manikin/Barber |  |   5  |
| Shampooing and rinsing | Learn the structure of hairScalp analysis |  2 |  |
| Shampooing and rinsing | Chemical Draping/Scalp analysis |  |  5 |
| Haircutting or the process ofCutting, tapering, trimming,Processing, and molding and Scalp, hair treatments, and tonics | Shear-over-comb tech w/manikin |  |  7 |
| Honing and Stropping | Handling the Razor Holding/ Honing |  1 |  |
| Barber Implements  | Practice Razoring / Honing |  |  2 |
| Straightening | Clipper-cut: Straight-Hair Manikin |  |  5 |
| Shaving | Practice Razor: Manikin/Outline Shaving |  |  10 |
|   **3**Curling | Blow-dryer/Marcel/Curling Iron Holding; Thermal Iron Care |   |  4 |
| Haircutting or the process ofCutting, tapering, trimming,Processing, and molding and Scalp, hair treatments and tonics | Review of Shaving-Related Infection ControlFinger& Shear Tech. w/Mirror |  |  3  |
| First Aid and Safety Precautions | Mock consultations (Role-play) |  |  2 |
| Bacteriology, sterilization, and sanitation | Safe work Practices and Safety Precautions worksheet |  2 |  |
| Shampooing and rinsing | Client protection; analysis shampoo and condition |  |  5 |
| Straightening | Finger& Shear Technique w/Mirror; Flat Iron/Pressing  |  |  8 |
| Bacteriology, sterilization, and sanitation | Preventing the spread of Infection Universal Precaution Rule |  2 |  |
| Bacteriology, sterilization, and sanitation | QUATS: Implement Disinfection |  1 |  |
| Dressing the Hair | Practice on MANIKIN: Blowdry style&Cornrow braiding |  |  12 |
|  **4**Professional Ethics | Practicing skills for effective communication and human relations |  1 |  |
| Professional Ethics | Handout on Ethical Standards |  1 |  |
| Shampooing and rinsing | Client protection; analysis shampoo and condition |  |  5 |
| Dressing  | Finger &Shear Technique w/Manikin |  |  10 |
| Haircutting, Male and Female | Identification of types Brushes and Combs; Finger &Shear Tech. w/Mirror |  1 |  |
| Haircutting, Male and Female | Discussion on proper holding of clippers and Outliners; Clipper-cut: Straight-Hair Manikin |  1 |  |
| Cutting and processing curly and over-curly hair | Discovering the structure of Hair |  1 |  |
| Dressing the Hair | Practice Shear-over-comb tech w/manikin |  |  20 |
|  **5**Sanitary Professional Techniques | Learn how to remove hair clippings; Clipper-cut: Tightly-curled manikin |  2 |   |
| Dressing | Demonstrate on a MODEL: Shear-Over-Comb |  |  5 |
| Scientific Fundamentals of Barbering | Discussion and Review a list of Professional Responsibilities |  2 |  |
| Shaping  | MODEL: Freehand &Clipper-over-comb(Straight Hair) |  |  10 |
| Mustaches and Beards | Understanding the Fundamentals of shaving; Review shaving-related Infections Control and Safety Precautions |   1 |  |
| Shampooing and rinsing | Client protection; analysis shampoo and condition |  |  5 |
| Dressing the Hair |  |  |  15 |
|  **6**Shaving | Razor: Manikin/Outline Shaving |  |  5 |
| Disorder of the skin, scalp, and hair | Discuss the chemical composition of Hair |  1 |  |
| Shaving | Understanding facial-hair design handout |  2 |  |
| Professional Ethics | Discussion on Time Management  |  2 |   |
| Shaping | Freehand &Clipper-over-comb(Tightly Curled Hair) |  |  5 |
| Shaving | Professional Shave! Live Model |  |  5 |
| Dressing the Hair | Practice on MODEL: Outline Shaving(Tightly curled hair) |  |  20 |
|  **7**Scalp, Hair treatments and skin | Review the study of the hair Professional Shave! and scalp |  2 |  |
| First Aid and Safety Precautions | Perform Proper Hair and Scalp Analysis |  |  2 |
| Shaving | Clipper Cutting(close fade) &Head Shaving; Backhand Position and Stroke |  |  10 |
| Shampooing and rinsing | Client protection; analysis shampoo and condition |  |  5 |
| Styling | MANIKIN: Blow-dry style& Cornrow braiding |  |  5 |
| Scalp, Hair treatments and skin | Discussion of hair growth and understanding hair loss |  3 |  |
| Dressing the Hair | Practice on MODEL: Clipper cut:(flat top& crew cut) |  |  10 |
| Dressing the Hair | Practice on MODEL: Razor Cutting/Clipper Cutting (Tapered cut curly hair) |  |  2 |
|  **8**Theory of massage of scalp, face, and neck | Discuss and Review Subdermal Systems |  2 |  |
| Massage and Facial Treatments | Facial Massage Manipulations( effleurage, pettrisage, and tapotement) |  |  10 |
| Facial treatments | Study the Facial Equipment and it’s functions for different facial treatments |  1 |  |
| Dressing the Hair | Clipper-cut:Tightly-curled manikin |  |  12 |
| Shaving | Review of Current Regulations for Health and Safety |  1 |  |
| Beautifying | Practice using Brush Machine &Facial Steamer Use; Desincrustation: Galvanic current application |  |  10 |
| Electricity and light therapy | Theory over Desincrustation and Iontophoresis treatments |  1 |  |
| Dressing the Hair | Practice on MODEL: Clipper cutting(Close Fade) |  |  2 |
|    **9**Shaving | Sketch a facial hair design on handout |    2 |  |
| Shaving | ***(Timed)***Neck Shave, Mustache Trim,& Beard Trim |  |  5 |
| Cutting and processing curly and over-curly hair | Discuss client consultation and analysis |  1 |  |
| Scientific Fundamentals of Barbering | Create a Women's: Blunt Cut(model/manikin) |  |  4 |
| Cosmetic preparations | Review the fundamentals of Women's: Hair Wrapping& Molding |   2 |  |
| Styling | Hair Wrapping& Molding |  |  10 |
| Dressing the Hair | Razor:/Outline Shaving on client |  |  10 |
| Dressing the Hair | Practice Razor Holding: Freehand Position and Stroke |  |  6 |
|  **10**Cosmetic preparations | Discuss the process of Thermal Styling: Hair Pressing, Flat Iron, Marcel& Curling Irons |  1 |  |
| Arranging | Design a Women's: Long Layered Cut; Women's: Hair Wrapping& Molding |  |  10 |
| Bacteriology, sterilization, and sanitation | Discuss safety precautions for haircutting and styling |  2 |  |
| Dressing the hair | Design a Women's: Uniform Layered Cut; Women's: Blow-dry Styling |  |  5 |
| Styling | MODEL: Freehand& Clipper-over-comb(Straight Hair)  |  |  12 |
| Bacteriology, sterilization, and sanitation | Review and identify styling techniques |  2 |  |
| Dressing the hair | Design a Women's: Clipper Cut Natural Style |  |  5 |
| Dressing the Hair | Practice on model Head Shaving |  |  2 |
|  **11**Disorder of the skin, scalp, and hair | Recognize Disorders of the Hair and Scalp |  2 |  |
| Dressing the hair | Sectioning and Parting; Permanent Waving: Physical Phase |   |  12 |
| Disorder of the skin, scalp, and hair | Review the disorders and properties of the hair and scalp |  2 |  |
| Dressing the hair | Permanent Waving: Chemical Phase |  |  5 |
| Bacteriology, sterilization, and sanitation | Discussion of the Sebaceous and Sudoriferous Glands |  1 |  |
| Waving hair | Permanent Waving: Physical Phase& Chemical Phase |  |  8 |
| Curling | Permanent Waving: Post-Treatment |  |  2 |
| Shaving | Client: Clipper Cutting(close fade) &Head Shaving |  |  5 |
| Dressing the Hair | Practice on MODEL: Clipper cutting(Flat Top& Crew Cut) |  |  2 |
|  **12**Chemistry | Discussion of the pH scale and the properties of water |  2 |  |
| Shampooing and rinsing | Client protection; analysis shampoo and condition |  |  5 |
| Dressing the hair | Process of Curl Reformation; Performing a Chemical Blow-out (MODEL) |  |   7 |
| Chemistry | Discussion over the understanding Basic Chemistry in relation to barbering |  3 |  |
| Dressing the hair |  Demonstration of a Thio/Hydroxide: Relaxer |  |  10 |
| Dressing the hair | Client: Clipper cut:(flat top& crew cut) |  |  12 |
|  **13**Bacteriology, sterilization, and sanitation | Review the identification of cosmetic preparations used in barbering |  2 |  |
| Dressing the hair | Client protection; Perform a Relaxer Retouch; Chemical reaction of neutralizing shampoo |  |  12 |
| Styling | Women's: Hair Wrapping &Molding |  |  5 |
| Bacteriology, sterilization, and sanitation | Understanding Chemical Relaxers, Texturizers, and Chemical Blowouts |  3 |  |
| Dressing the hair | Woman’s: Razor Cutting |  |  17 |
|   **14** Styling | Practice Women's: Blow-dry Styling; Thermal Styling: Hair Pressing, Flat Iron, Marcel& Curling Irons |  |  10 |
| Disorder of the skin, scalp, and hair |  Review the purpose of Patch Test& Strand Test |   3 |  |
| Bleaching and dyeing the hair | Perform a Temporary Color Rinse; and a Semi-permanent Application |  |  10 |
| Processing | Practice Sectioning and Parting for chemical service |  |  2 |
| Disorder of the skin, scalp, and hair | Review the process of chemical texture services |  2 |  |
| Dressing the hair | Child :Freehand& Clipper-over-comb(Tightly Curled Hair) |  |  13 |
|  **15**Bleaching and dyeing the hair | Demonstrate a Permanent Color: Single-process(virgin) |  |  10 |
| Bacteriology, sterilization, and sanitation | Review haircoloring and lightening safety |  2 |  |
| Bacteriology, sterilization, and sanitation | Understanding the theory of color; and identifying haircoloring products |  3 |  |
| Bleaching and dyeing the hair | Perform a Permanent Color: Single-process(retouch); and Double-Process Haircoloring |  |  10 |
| Beards and Mustaches | Demonstrate the proves of Coloring Mustaches and Beards |  |  5 |
| Dressing the hair | Taper Cut(Curly Hair Texture) |  |  10 |
|  **16**Anatomy, physiology, and histology  | Discuss diagrams of the human anatomy(general) and physiology and the importance in barbering |  3 |  |
| Anatomy, physiology, and histology  | Review important key terms and definitions of the anatomy |  2 |  |
| Hair Weaving and hairpieces | Demonstrate Template Making; Plaster Mold Form; Hair Replacement Statement: Stock Customizing |  |  8 |
| Processing | Perform a Hair Replacement Rinse, Semi. / Demi. ,Perm (MANIKIN) |  |  2 |
| Dressing the hair | Razor Holding: Freehand Position and Stroke on client |  |  13 |
| Shaving | Head Shaving on client |  |  5 |
| Shampoo and rinsing | Client protection; analysis shampoo and condition |  |  2 |
| Styling | Blow-dry Styling client |  |  5 |
|  **17**Anatomy, physiology, and histology  | Discuss the mastering the art of consultation in hair replacement   |  2 |  |
| Dressing the hair | Client: Clipper cutting(Flat Top&Crew Cut) |  |  11 |
| Anatomy, physiology, and histology  | Learn about hair replacement systems& obtaining hair replacement systems |  3 |  |
| Hair Weaving and hairpieces | Bonding: Full-Head procedure on (MANIKIN) |  |  5 |
| Hair Weaving and hairpieces | Perform a Haircut: Blunt, Long/Uniformed-Layered, Graduated |  |  2 |
| Hair Weaving and hairpieces | Demonstrate Wig Cleaning Hair Replacement& Human Hair Cleaning |  |  2 |
| Dressing the hair | Client protection; analysis shampoo and condition |  |  5 |
| Processing | Reconstructive Treatment |  |  5 |
| Styling | Cornrow Braiding (MODEL) |  |  5 |
|  **18**Anatomy, physiology, and histology  | Review how to employ proper ergonomics to protect your body |  2 |  |
| Manicuring | Practice skills for a Manicure: Implement; Sanitation &Disinfection; Basic Table Setup |  |  2 |
| Manicuring | Perform a Men's Manicure; add-on a Hand& Arm Massage; Women's Manicure; add-on a Hand& Arm Massage  |  |   6 |
| Anatomy, physiology, and histology  | Describe the unit of the nail; and review nail disorders and diseases |  3 |  |
| Styling | Bonding: Full-Head procedure on (MANIKIN) |  |  3 |
| Dressing the hair | Client protection; analysis shampoo and condition |  |  6 |
| Straightening | Practice Thermal Styling: Hair Pressing, Flat Iron, Marcel &Curling Irons |  |  2 |
| Dressing the hair | Bonding: Full-Head procedure on (Model); Razor cut and style |  |  15 |
|   **19**Anatomy, physiology, and histology  | Discuss the key terms associated with electrotherapy and the body |  3 |  |
| Dressing the hair | Neck Shave, Mustache Trim,& Beard Trim |  |  2 |
| Barbershop management | Client rebooking and appointment scheduling |  |  3 |
| Dressing the hair | Client: Blow-dry style& Cornrow braiding |  |  18 |
| Singeing | Apply an Electric massager: Massage movements to face after practicing singeing |  |  3 |
| Singeing | Perform a Direct& Indirect Surface Application; Indirect high-frequency current procedure to face after practicing singeing |  |  4 |
| Anatomy, physiology, and histology  | Explain the fundamentals of light energy and light therapy |   2 |  |
| Shaving | Practice on Model: Head Shaving |  |  5 |
|  **20**Anatomy, physiology, and histology  | Review the study of skin (structure, disorders, and diseases) |  3 |  |
| Anatomy, physiology, and histology  | Identify the types of tissues and discuss the body systems and associated organs |  2 |  |
| Dressing the hair | Perform a Reconstructive Treatment and a Haircutting technique of :Fringe(bangs)  |  |   13 |
| Dressing the hair | Create a Blow-dry Style |  |  5 |
| Dressing the hair | Toning& Reconstructive Treatment |  |  5 |
| Dressing the hair | Women's: Graduated Cut |  |  7 |
| Beards and Mustaches | Perform **(Timed)**Neck Shave, Mustache Trim, &Beard Trim |  |   5 |
|  **21**Barbershop management | Review the types of Business Options |  2 |  |
| Dressing the hair | MODEL:BARBER SHOW CONTEST |  |  15 |
| Barbershop management | MODEL:BARBER SHOW |  |  3 |
| Barbershop management | Discuss the Business of Barbering; Understand the process of managing your money |  3 |  |
| Barbershop management | Field Trip: Visit 4 well Established Barbershops |  |  16 |
|  **22**Salesmanship | Understanding the Real World; Discuss client retention and expansion of client base**Guest Speaker: (TBA)** |  3 |  |
| Salesmanship | Discussion on the discovering the selling you; Perform resume writing and mock interviews |  2 |  |
| Cleansing | Client protection; analysis shampoo and condition |  |  10 |
| Dressing for the hair | Woman’s: Taper Cut(Curly Hair Texture) |  |  10 |
| Straightening | Hair pressing (child) |  |  6 |
| Dressing for the hair | MODEL: Clipper cutting(Close Fade) Straight hair |  |  8 |
|  **23**Bacteriology, sterilization, and sanitation | 82.104. Health and Safety Standards--Facial Services.State board: Bagging& Labeling; TDLR REVIEW |  5 |  |
| Professional Ethics | State board: Practical Task Line Review; TDLR REVIEW |  |  8 |
| Beards and Mustaches | Coloring Mustaches and Beards-Client |  |  5 |
| Clipping | Haircutting: Fringe(bangs)-Child |  |  2 |
| Curling | Chemical Blow-out |  |  9 |
| Waving | Women's: Hair Wrapping& Molding |  |  4 |
| Waving | Fingerwaves |  |  4 |
| Dressing the Hair | Practice Women's: Graduated Cut  |  |  3 |
|   **24**Bacteriology, sterilization, and sanitation | 82.73. Responsibilities of Students.Mock State board (Q&A) |  5 |  |
| Waving | Wrap Mohawk section (timed) |  |  11 |
| Processing | Chemical Blowout! Practice on a model |  |  2 |
| Professional Ethics | JOB FAIR; Recruitment for employment |  |  14 |
| Dressing the hair | Client: Razor Cutting/Clipper Cutting (Tapered cut curly hair) |  |   7 |
|  **25**Anatomy, physiology, and histology  | Review the process of Desincrustation: Galvanic current application |  5 |  |
| Dressing the hair | Client: Clipper Cutting(close fade) &Head Shaving |  |  13 |
| Cleansing  | Client protection; analysis shampoo and condition |  |  2 |
| Dressing the hair | Child: Clipper cutting(Close Fade) |  |  10 |
| Dressing the hair | Finger& Shear Technique on a client |  |  10 |
|  **26**Anatomy, physiology, and histology  | Discuss the practice of electrical equipment safety; Mock State board |  5 |  |
| Shaving | Professional Shave-Client |  |  5 |
| Dressing the hair | Client: Freehand& Clipper-over-comb(Tightly Curled Hair) |  |  12 |
| Dressing the hair | Client: Freehand& Clipper-over-comb(Straight Hair) |  |  11 |
| Dressing the hair | Shear-over-comb tech on a client |  |  7 |
|  **27**Anatomy, physiology, and histology  | Review the importance of a shampoo service; Mock State board |  5 |  |
| Shaving | Razor: Client/Outline Shaving |  |  5 |
| Dressing the hair | Sustained Cut: Client/Barber |  |  7 |
| Dressing the hair | Clipper cutting(Flat Top& Crew Cut) on child |  |  11 |
| Dressing the hair | Client: Razor Cutting |  |  12 |
|  **28** Anatomy, physiology, and histology  | Review men’s facial massage and treatments; Mock State board |  5 |  |
| Shaving | Razor: Client/Outline Shaving |  |  5 |
| Dressing the hair | Special Effects on a client |  |  12 |
| Dressing the hair | Toning& Reconstructive Treatment on client |  |  7 |
| Dressing the hair | Hair Coating Removal-Client |  |  11 |
|  **29**Dressing the hair | Clients: Clipper cutting(Flat Top& Crew Cut) |  |  10 |
| Dressing the hair | Clients: Clipper cutting(Close Fade) |  |  10 |
| Dressing the hair | Clients: Outline Shaving(Tightly curled hair) |  |  10 |
| Anatomy, physiology, and histology  | Discuss the psychology of success; Mock State board |  5 |  |
| Shaving | Razor: Client/Outline Shaving |  |  5 |
|  **30**Dressing the hair  | Field Trip! Community Service: “Men Returning to the Workforce” |   |  5 |
| Shaving | Razor: Client/Outline Shaving |  |  5 |
| Dressing the hair | Client: Razor Cutting/Clipper Cutting (Tapered cut curly hair) |  |  10 |
| Dressing the hair | Clipper-cut: Straight-Hair Client |  |  12 |
| Dressing the hair | Client: Shear-Over-Comb |  |  7 |
|  **31**Dressing the hair  | Field Trip! Community Service: “Cuts for Kids” |    |   3 |
| Dressing the hair | Client: Freehand& Clipper-over-comb(Straight Hair) |  |  8 |
| Dressing the hair | Women's: Uniform Layered Cut |  |  9 |
| Dressing the hair | Women's: Clipper Cut Natural Style |  |  10 |
| Shaving | Neck Shave, Mustache Trim,& Beard Trim on client |  |  5 |
| Cleansing | Client protection; analysis shampoo and condition |  |  2 |
| Clipping | Bang-cut: Straight-Hair Client |  |  2 |
|  **32**Texas Barber Laws and Rules | 82.80. Review of TDLR Fees |  5 |  |
| Dressing the hair | Women's: Long Layered Cut-Client |  |  10 |
| Dressing the hair | Reformation Curl-Client |  |  7 |
| Dressing the hair | Relaxer Retouch-Client |  |  5 |
| Dressing the hair | Women's: Hair Wrapping& Molding-Client |  |  4 |
| Dressing the hair | Thio/Hydroxide: Relaxer-Client |  |  9 |
|  **33**Texas Barber Laws and Rules | 82.100. Review Health and Safety Definitions |  5 |  |
| Dressing the hair | Chemical Blow-out-client |  |  13 |
| Dressing the hair | Women's: Clipper Cut Natural Style-client |  |  15 |
| Straightening | Razor: Client/Outline Shaving |  |  2 |
| Cleansing | Client protection; analysis shampoo and condition |  |  2 |
| Clipping | Razor Holding: Freehand Position and Stroke |  |  2 |
|  **34**Texas Barber Laws and Rules | 82.103. Review Health and Safety Standards--Hair Cutting, Styling, Treatment and Shaving Services. |  5 |  |
| Dressing the hair | Client: Razor Cutting |  |  8  |
| Dressing the hair | Taper Cut(Curly Hair Texture) on client |  |   11 |
| Dressing the hair | Women's: Blunt Cut-client |  |  4  |
| Dressing the hair | Women's: Uniform Layered Cut-Client |  |   11 |
|   **35**Dressing the hair | Finger& Shear Technique on client |  |  10 |
| Texas Barber Laws and Rules | Review the Health and Safety Standards--Facial Services |   5 |  |
| Dressing the hair | Women’s Razor cut: Client |  |  12 |
| Dressing the hair | Women’s Clipper-cut: Tightly-curled  |  |  12 |
|  **36**Dressing the hair | Clipper-cut: Straight-Hair Client |  |  11 |
| Texas Barber Laws and Rules | Review the Health and Safety Standards--Wig and Hairpiece Services |  5 |   |
| Dressing the hair | Client: Shear-Over-Comb |  |  12 |
| Dressing the hair | Client: Clipper Cutting(close fade) &Head Shaving |  |  12 |
|  **37**Texas Barber Laws and Rules | Review on moving from school to workFINAL: Written **(TIMED)** |  5 |   |
| Dressing the hair | Clipper-cut: Tightly-curled Client |  |  13 |
| Cleansing | Client protection; analysis shampoo and condition |  |  2 |
| Dressing the hair | Client: Clipper cutting(Flat Top& Crew Cut) |  |  15 |
| Clipping | Neck Shave, Mustache Trim,& Beard Trim on client |  |  2 |
| Straightening | Women's: Blow-dry Styling |  |  1 |
| Straightening | Women's: Hair Wrapping& Molding |  |  1 |
|  **38**Texas Barber Laws and Rules | Discussion on ‘What to expect’ and ‘On Your Way’Mock State board **(TIMED)** |  5 |  |
| Dressing the hair | Client: Clipper Cutting(close fade) &Head Shaving |  |  10 |
| Dressing the hair | Shear-over-comb technique on a client |  |  10 |
| Dressing the hair | Shampoo procedure (shampoo& rinse hair); Blow drying service(use vent/round brush hair) |  |  1 |
| Clipping | Hair shaping service(use clippers& shears to create a tapered, blended haircut) |  |  2 |
| Cleansing | Client protection; analysis shampoo and condition |  |  2 |
| Dressing the hair | Shaving Service(use razor w/blade to perform a basic shave) on client |  |  2 |
| Dressing the hair | Facial Service (petrissage, effleurage, OR tapotement manipulations with massage cream) |  |  1 |
| Dressing the hair | Chemical Service (virgin hair relaxer, hair color retouch application);  |  |  1 |
| Waving | Permanent waving Service(3-rod wrapping  |  |  1 |
| Processing | Application of mock chemical waving solution |  |   4 |