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Fall 2010

PROGRAM CONCENTRATION:
CAREER PATHWAY:
COURSE TITLE:

Healthcare Science
Personal Care Services
Cosmetology Services--Core I

Course Description: This course introduces the fundamental theory and practices of the cosmetology profession. Emphasis will be placed on professional practices and safety. Topics include: state and local laws, rules and regulations, professional image, bacteriology, decontamination and infection control, chemistry fundamentals, safety, Hazardous Duty standards Act compliance, and various types of equipment. This course introduces the chemistry and chemical reaction of permanent wave solutions and relaxers. Topics include: permanent wave techniques, chemical relaxer techniques, chemistry, physical and chemical charge, safety procedures, and permanent wave and chemical relaxer application procedures on mannequins. Included is an introduction to theory, procedures, and products used in the care and treatment of the skin, scalp and hair. Students will demonstrate knowledge and skills in basic corrective hair and scalp treatments, plain facials, products and supplies, diseases and disorders, and safety precautions. Students will earn credit hours toward the completion of the 1500 credit hours required by Georgia State Board of Cosmetology. In addition, this course offers the possibility of meeting articulation alignment with the technical college standards. This course provides more in-depth competencies for the co-curricular student organization SkillsUSA and presents integral components that should be incorporated throughout instructional strategies developed for the course.

State and Local Laws, Rules and Regulations

Students will analyze the field of Cosmetology and the personal skills needed to become a Cosmetologist, state the number of board members, identify sanitation requirements, and list types of certificates of registration. The student will become familiar with the cosmetology profession, Georgia State Board of Cosmetology requirements, laws, rules and regulations, and introduction to fundamental theory and practices of the cosmetology profession.

HS-CS-I-1. Students will classify the history of Cosmetology and the origins of hairstyling and barbering. Students will demonstrate knowledge of the number of board members, requirement hours, and types of licenses. Career opportunities in Cosmetology will be explored. The students will be able to define sanitation requirements in the salon.

- a. Describe the advancements made in Cosmetology.
- b. Describe the origins of hairstyling and barbering.
- c. Explain the requirements for different types of Cosmetology licenses, hours required, and a breakdown of units of study for the different licenses.
- d. Identify sanitation requirements for the salon and schools.
- e. List the career opportunities available to a licensed beauty practitioner.

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HS-CS-I-2. Students will summarize and define personal and public hygiene, ethics, human relations, and ergonomic principles.

- a. Describe hygiene rules and list rules of cleanliness.
- b. Demonstrate good grooming principles.
- c. Demonstrate an understanding of ergonomic principles and ergonomically correct posture.

Infection Control

Students will demonstrate knowledge of salon infection control and how to reduce the spread of infections and diseases. Infection control will include proper sanitation, decontamination, and sterilization. Safe use of chemicals will be applied in the classroom and clinic.

HS-CS-I-3. Students will evaluate the regulations of infection control: principles, prevention, procedures and precautions. The students will demonstrate understanding of proper sanitation, disinfection and sterilization. Facial implements and machines will be properly disinfected and stored.

- a. Compare and contrast the regulatory agencies responsible for the cosmetology field (include OSHA, MSDS and the EPA).
- b. Distinguish the types and classifications of bacteria, bacterial growth, and reproduction.
- c. Define blood borne pathogens, viruses, and parasites.
- d. Differentiate the different methods of sanitation, decontamination, and sterilization.
- e. Identify the types of disinfectants and the disinfection procedure.
- f. Identify all safety rules used in the cosmetology profession.

HS-CS-I-4. Students will demonstrate safety rules when mixing disinfectants, using electrical equipment, facial implements, and machines.

- a. Select, mix, and store the correct antiseptic, disinfectant, and other decontamination chemicals to use in relation to the task.
- b. Determine the appropriate use of all electrical equipment in order to eliminate accidents and ensure safety for the student.
- c. Demonstrate how to sanitize and disinfect all implements and tools used in facials.
- d. Perform all sanitation, disinfection, and safety requirements essential to facial services.

Academic Standard(s):

SCSh2. Students will use standards safety practices for all classroom laboratory and field investigation.

- a. Follow correct procedures for use of scientific apparatus.
- b. Demonstrates appropriate techniques in all laboratory situation.
- c. Follow correct protocol for identifying and reporting safety problems and violations.

Chemistry in Cosmetology

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Students will examine the differences between organic and inorganic chemistry and how it relates to Cosmetology. The states of matter, elements, molecules, physical, and chemical properties will be explored. Students will describe how hair is composed and how it alters from physical to chemical changes. The students will demonstrate their understanding of product knowledge and how it affects the hair by use of the pH scale. Emphasis will be placed on proper product selection and recommendations for the clients.

HS-CS-1-5. Students will explain, describe, and list the basic components of chemistry in Cosmetology.

- a. Explain the difference between organic and inorganic chemistry.
- b. Discuss the different forms of matter—elements, compounds, and mixtures.
- c. Explain pH and the pH scale.
- d. Define atom, molecule, solution, and emulsion.
- e. Describe properties of matter related to cosmetology.

HS-CS-I-6. Students will differentiate shampoos and conditioners for a variety of hair types, using the pH scale and demonstrating the technique for shampooing and scalp and hair treatments.

- a. Explain the importance of pH in shampoo selection.
- b. Explain the role of surfactants in shampoo.
- c. Discuss the uses and benefits of various types of shampoos and conditioners.
- d. Perform proper scalp manipulations as part of a shampoo service.
- e. Demonstrate proper shampooing and conditioning procedures.
- f. Demonstrate a basic corrective hair and scalp treatments.
- g. Describe the benefits of scalp manipulations.
- h. Apply all safety precautions for scalp and hair treatment and identify safety precautions to be followed in scalp and hair care.

Academic Standard(s):

SC7. Students will characterize the properties that describe solutions and the nature of acids and bases.

- a. Explain the process of dissolving in terms of solute/solvent interactions.
- b. Compare, contrast and evaluate the nature of acids and bases.

Anatomy and Physiology

Students will explain the importance of anatomy and physiology to the personal care service industry. Understanding anatomy and the role it plays in the industry will help the student develop beneficial facial and makeup skills, massage techniques, hair cutting, and hairstyle techniques. This unit will help the student understand how the human body functions as an integrated whole.

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HS-CS-I-7. Students will demonstrate a working knowledge of anatomy as it relates to massage in facials, manicures, and pedicures. Students will demonstrate knowledge of anatomy as it relates to bone structure and muscle contours in hair cutting, facials, and makeup.

- a. Describe the importance of anatomy and physiology to the cosmetology profession.
- b. Explain cells, their structure, and their reproduction.
- c. Define tissue and name the types of tissues found in the body.
- d. Demonstrate the proper massage procedures in manicures, pedicures, and facial massage.
- e. Discriminate between different facial bone structures and muscle contours as it relates to hair cutting, facial, and make-up.
- f. Compare and contrast the ten main body systems and their basic functions and how they relate to manicures, pedicures, and facials.

Academic Standard(s):

SCSh1. Students will evaluate the importance of curiosity, honesty, openness, and skepticism in science.

- a. Exhibit the above traits in their own scientific activities
- b. Recognize that different explanations often can be given for the same evidence.

SAP1. Students will analyze anatomical structures in relationship to their physiological functions.

- a. Apply correct terminology when explaining the orientation of body parts and regions.
- b. Investigate the interdependence of the various body systems to teach others and to the body as a whole.
- c. Describe how structure and functions are related in terms of cell and tissue types.

SAP2. Students will analyze the interdependence of the integumentary, skeletal and muscular systems as these relate to the protection, support, and movement of the human body.

- a. Relate the structure of the integumentary system to its functional role in protecting the body and maintaining homeostasis.
- b. Explain how the skeletal structures provide support, and protection for tissues and function together with the muscular system to make movements possible.

SHCH- Students will use standard safety practices for all classroom laboratory and workplace investigations.

SAP4e- Examine various conditions that change normal body functions (e.g. tissue refection, allergies, injury, disease and disorders) and how the body responds.

SAP5e- Describe effects of aging on all body systems.

Introduction to Chemical Texturing

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Students will compare and contrast the chemistry and chemical reactions of permanent wave solutions and relaxers. Topics include: analyze hair and scalp, permanent wave techniques, chemical relaxer techniques, chemistry, physical and chemical change, safety procedures, and permanent wave and chemical relaxer application procedures on mannequins.

HS-CS-I-8. Students will describe the chemical reaction of chemical hair texture services. Students will explain the purpose of a scalp and hair analysis in relation to the chemical service. Students will demonstrate (on a mannequin) sectioning, blocking, and wrapping a permanent wave. Students will perform a mock chemical relaxer on a mannequin. This procedure enables students to compare the changes in the physical and chemical structure of the hair that takes place during the application of a chemical service.

- a. List the factors of hair analysis for chemical texture service.
- b. Explain the physical and chemical actions that take place during permanent waving.
- c. Demonstrate basic wrapping procedures: straight set, curvature wrap, bricklay wrap, weave wrap, double-rod wrap, and spiral wrap.
- d. Describe the procedure for chemical hair relaxing.
- e. Understand the difference between hydroxide relaxers and thio relaxers.
- f. Define the procedures for cold wave services.

Academic Standard(s):

SC6. Students will understand the effects of motion of atoms and molecules in chemical and physical processes.

- a. Compare and contrast atomic/molecular motion in solids, gases, and plasma.
- b. Collect data and calculate the amount of heat given off or taken in by chemical or physical processes.
- c. Analyze the flow of energy during change of states.

Histology of the Skin, Hair and Scalp

Students will examine basic histology and the effects on the hair and skin. Conditions, disorders, diseases of the scalp and skin will be explored. Students will discriminate between signs of a healthy scalp/ skin and an infection or disease that may require refusal of a service. Anatomy of the skin will be distinguished and the roles of the layers of skin, including their functions. Students will demonstrate proper hair analysis and identify hair growth patterns. Disorders of the hair and scalp will be defined. Various scalp and hair treatments will be analyzed to determine the best application for each client. Students will be introduced in theory and application to the procedure and products used in a basic facial service. Students will comprehend how to provide basic skin care services and complete a basic makeup application.

HS-CS-I-9. Students will identify the basic histology of the hair and skin, their diseases and disorders, and corrective treatments.

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- a. Identify and compare the structure of hair.
- b. Investigate and identify samples of hair textures.
- c. Compare the various natural hair growth patterns on live models.
- d. Identify the scientific terms for head and facial hair and differentiate between them.
- e. Demonstrate hair analysis, using density, porosity, and elasticity as scientific indicators.
- f. Identify and compare the physical and chemical actions that damage the hair structure.
- g. Distinguish between the benefits of various hair conditioning products.
- h. Demonstrate the application of basic conditioning products.
- i. Identify the electrical implements used for hair and scalp treatments.
- j. Demonstrate corrective hair and scalp treatments.
- k. Demonstrate safety and infection control procedures used in hair and scalp treatments
- l. Identify the most common diseases and disorders of the skin and hair and explain their origin.
- m. Differentiate between corrective treatments for conditions that may be treated in a salon and those that must be referred to a physician.

Academic Standard(s):

SCSh 1 Students will evaluate the importance of curiosity, honesty, openness, and skepticism in science.

SCSH5 Students will demonstrate the computation and estimation skills necessary for analyzing data and developing reasonable scientific explanations.

ELA10RC3 (a.) Demonstrates an understanding of contextual vocabulary in various subjects.

SCSh4 Students will use tools and instruments for observing, measuring, and manipulating scientific equipment and materials.

S712 Students will describe the structure and functions of cells, tissues, organs, and organ systems.

HS-CS-II-10. Students will understand the structure and function of the human skin enabling the student to analyze and perform the types of services required for a specific skin condition. During this introductory class, the students will become familiar with the correct method for giving a facial and a makeup application. .

- a. Describe the five basic massage movements used in Cosmetology.
- b. List and identify the products and supplies needed to perform plain facial services.
- c. List the basic cosmetics used on the face and neck.
- d. Give plain facial treatment for normal, dry, and oily skin.
- e. Perform basic day and evening makeup application.
- f. Follow safety precautions for skin and facial treatment and identify safety precautions to be followed in skin care.

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- g. Demonstrate knowledge of state and federal regulations to include the handling and disposal of hazardous materials according to the MSDS.

Academic Standard(s):

SCSh 1 Students will evaluate the importance of curiosity, honesty, openness, and skepticism in science.

Reading Across the Curriculum

Reading Standard Comment

After the elementary years, students engage in reading for learning. This process sweeps across all disciplinary domains, extending even to the area of personal they experience text in all genres and modes of discourse. In the study of various disciplines of learning (language arts, mathematics, science, social studies), students must learn through reading the communities of discourse of each of those disciplines. Each subject has its own specific vocabulary, and for students to excel in all subjects, they must learn the specific vocabulary of those subject areas in context.

Beginning with the middle grades years, students begin to self-select reading materials based on personal interests established through classroom learning. Students become curious about science, mathematics, history, and literature as they form contexts for those subjects related to their personal and classroom experiences. As students explore academic areas through reading, they develop favorite subjects and become confident in their verbal discourse about those subjects.

Reading across curriculum content develops both academic and personal interests in students. As students read, they develop both content and contextual vocabulary. They also build good habits for reading, researching, and learning. The Reading Across the Curriculum standard focuses on the academic and personal skills students acquire as they read in all areas of learning.

Students will enhance reading in all curriculum areas by:

- a. Reading in all curriculum areas
 - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.
 - Read both informational and fictional texts in a variety of genres and modes of discourse.
 - Read technical texts related to various subject areas.
- b. Discussing books

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- Discuss messages and themes from books in all subject areas.
 - Respond to a variety of texts in multiple modes of discourse.
 - Relate messages and themes from one subject area to messages and themes in another area.
 - Evaluate the merit of texts in every subject discipline.
 - Examine author's purpose in writing.
 - Recognize the features of disciplinary texts.
- c. Building vocabulary knowledge
- Demonstrate an understanding of contextual vocabulary in various subjects.
 - Use content vocabulary in writing and speaking.
 - Explore understanding of new words found in subject area texts.
- d. Establishing context
- Explore life experiences related to subject area content.
 - Discuss in both writing and speaking how certain words are subject area related.
 - Determine strategies for finding content and contextual meaning for unknown words.

CTAE Foundation Skills

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that students pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Education Foundation (NCTEF) and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards were identified and validated by a national advisory group of employers, secondary and postsecondary educators, labor associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

CTAE-FS-1 Technical Skills: Learners achieve technical content skills necessary to pursue the full range of careers for all pathways in the program concentration.

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CTAE-FS-2 Academic Foundations: Learners achieve state academic standards at or above grade level.

CTAE-FS-3 Communications: Learners use various communication skills in expressing and interpreting information.

CTAE-FS-4 Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools.

CTAE-FS-5 Information Technology Applications: Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

CTAE-FS-6 Systems: Learners understand a variety of organizational structures and functions.

CTAE-FS-7 Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

CTAE-FS-8 Leadership and Teamwork: Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

CTAE-FS-9 Ethics and Legal Responsibilities: Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

CTAE-FS-10 Career Development: Learners plan and manage academic-career plans and employment relations.

CTAE-FS-11 Entrepreneurship: Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.