2022 Cosmetology

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Direct inquiries to:

Instructional Design Specialist
Research and Curriculum Unit
P.O. Drawer DX
Mississippi State, MS 39762
662.325.2510

Program Coordinator
Office of Career and Technical Education
Mississippi Department of Education
P.O. Box 771
Jackson, MS 39205
601.359.3974

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Research and Curriculum Unit
Mississippi State University
Mississippi State, MS 39762

The Research and Curriculum Unit (RCU), located in Starkville, as part of Mississippi State University (MSU), was established to foster educational enhancements and innovations. In keeping with the land-grant mission of MSU, the RCU is dedicated to improving the quality of life for Mississippians. The RCU enhances intellectual and professional development of Mississippi students and educators while applying knowledge and educational research to the lives of the people of the state. The RCU works within the contexts of curriculum development and revision, research, assessment, professional development, and industrial training.

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Dr. Carey M. Wright, state superintendent of education
Ms. Rosemary G. Aultman, Chair
Mr. Glen East, Vice-Chair
Dr. Wendi Barrett
Dr. Angela Bass
Dr. Karen J. Elam
Mr. Bill Jacobs
Dr. Ronnie McGehee
Mr. Matt Miller
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Ms. Micah Hill, student representative

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Standards

Standards and alignment crosswalks are referenced in the appendices. Depending on the curriculum, these crosswalks should identify alignment to the standards mentioned below, as well as possible related academic topics as required in the Subject Area Testing Program in Algebra I, Biology I, English II, and U.S. History from 1877, which could be integrated into the content of the units. Mississippi's CTE cosmetology curriculum is aligned to the following standards.

Mississippi State Board of Cosmetology (MSBC)
The MSBC establishes rules and regulations that regulate the instruction and practice of cosmetology and related professions. The board sets licensure qualifications and procedures for the exam administration. Additionally, the board determines regulations setting forth sanitation requirements for the operation of cosmetology establishments, for the benefit of the consumer and for the public health.
msbc.ms.gov/

National Skills Standards for Cosmetology
Milady Standard Textbook of Cosmetology, 13th edition. (2016) Clifton Park, NY. Cengage.

International Society for Technology in Education Standards (ISTE)
Reprinted with permission from *ISTE Standards for Students* (2016). All rights reserved. Permission does not constitute an endorsement by ISTE.
iste.org

College- and Career-Ready Standards
College- and career-readiness standards emphasize critical thinking, teamwork, and problem-solving skills. Students will learn the skills and abilities demanded by the workforce of today and the future. Mississippi adopted Mississippi College- and Career-Readiness Standards (MCCRS) to provide a consistent, clear understanding of what students are expected to learn and so teachers and parents know what they need to do to help them.
mdek12.org/oae/college-and-career-readiness-standards

Framework for 21st Century Learning
In defining 21st-century learning, the Partnership for 21st Century Skills has embraced key themes and skill areas that represent the essential knowledge for the 21st century: global awareness; financial, economic, business, and entrepreneurial literacy; civic literacy; health literacy; environmental literacy; learning and innovation skills; information, media, and technology skills; and life and career skills. 21 *Framework Definitions* (2019)
battelleforkids.org/networks/p21/frameworks-resources

Preface

Secondary CTE programs in Mississippi face many challenges resulting from sweeping educational reforms at the national and state levels. Schools and teachers are increasingly being held accountable for providing applied learning activities to every student in the classroom. This accountability is measured through increased requirements for mastery and attainment of competency as documented through both formative and summative assessments. This document provides information, tools, and solutions that will aid students, teachers, and schools in creating and implementing applied, interactive, and innovative lessons. Through best practices, alignment with national standards and certifications, community partnerships, and a hands-on, student-centered concept, educators will be able to truly engage students in meaningful and collaborative learning opportunities.

The courses in this document reflect the statutory requirements as found in Section 37-3-49, *Mississippi Code of 1972*, as amended (Section 37-3-46). In addition, this curriculum reflects guidelines imposed by federal and state mandates (Laws, 1988, Ch. 487, §14; Laws, 1991, Ch. 423, §1; Laws, 1992, Ch. 519, §4 eff. from and after July 1, 1992; Strengthening Career and Technical Education for the 21st Century Act, 2019 [Perkins V]; and Every Student Succeeds Act, 2015).

Mississippi Teacher Professional Resources

The following are resources for Mississippi teachers:

Curriculum, Assessment, Professional Learning

Program resources can be found at the RCU's website, rcu.msstate.edu.

Learning Management System: An Online Resource

Learning management system information can be found at the RCU's website, under Professional Learning.

Should you need additional instructions, call the RCU at 662.325.2510.

Executive Summary

Pathway Description
Cosmetology is a pathway in the human services career cluster. It is a two-year high school program that includes classroom and hands-on experiences for students who wish to care for hair, nails, and skin. Over the course of study, students will learn the theory and practice of hair, cosmetics, and nail design. Emphasis is also placed on career and professional development by focusing on salon operation and management.

Instructional strategies and activities implemented throughout the course of study are aligned to the (MSBC) standards and the Milady Standard Cosmetology. Cosmetology students will be required to obtain a minimum of 100 practical (clinical) hours over the course of the two-year program. Practical hours can consist of salon visits, hair shows, and techniques practiced and demonstrated in the classroom.

College, Career, and Certifications
Students who successfully complete the program may choose to transfer the accumulated practical hours to a certified cosmetology school to complete the MSBC licensure process. In addition, students may choose to continue their education at a post-secondary institution. Students who choose to attend a postsecondary program, may enter a cosmetology technical program. After completion of the postsecondary program and becoming a licensed cosmetologist, students may enter the workforce as a salon stylist, nail, or skin technician. In addition, students will be able to pursue their own salon. Continuing education credits and training with the state board allow for advanced positions such as master stylists and instructor roles.

Grade Level and Class Size Recommendations
It is recommended that students enter this program as 10th graders. Exceptions to this are a district-level decision based on class size, enrollment numbers, and student maturity. A maximum of 15 students is recommended for this class that is both classroom- and lab-based.

Student Prerequisites
In order for students to be able to experience success in the Cosmetology program, the following student prerequisites are suggested:

1. C or higher in English (the previous year)
2. C or higher in Math (last course taken or the instructor can specify the math)
3. C or higher in specified science course approved by the instructor

or

1. Instructor Approval

Assessment
The latest assessment blueprint for the curriculum can be found at rcu.msstate.edu/curriculum/curriculumdownload.

Applied Academic Credit

The latest academic credit information can be found at mdek12.org/ese/approved-course-for-the-secondary-schools.

Teacher Licensure

The latest teacher licensure information can be found at mdek12.org/oel/apply-for-an-educator-license.

Professional Learning

If you have specific questions about the content of any training sessions provided, please contact the RCU at 662.325.2510.

Course Outlines

Option 1—Four 1-Carnegie Unit Courses

This curriculum consists of four 1-credit courses that should be completed in the following sequence:

1. **Introduction to Cosmetology—Course Code: 994700**
2. **Basic Cosmetology—Course Code: 994701**
3. **Advanced Cosmetology—Course Code: 994701**
4. **Applications of Cosmetology—Course Code: 994703**

Course Description: Introduction to Cosmetology
This course introduces students to the field of cosmetology and identifies some of the current and future trends affecting the cosmetology industry and the impact that this trade has on society and the global economy. Students will explore safety, infection control, and decontamination issues associated with cosmetology. This course will give students a detailed look at the histology of the skin before allowing students to study aspects of the human anatomy and physiology to understand their importance to cosmetology.

Course Description: Basic Cosmetology
Students will be introduced to the properties of the hair and scalp. Additional science-related content will include the study of basic chemistry and electricity as it relates to cosmetology. Students will learn about the principles of hair design to understand basic techniques for styling. Then students will be introduced to scalp cleansing to understand the importance of techniques such as shampooing and conditioning.

Course Description: Advanced Cosmetology
This course will begin to give students in-depth skills regarding theoretical and practical knowledge. Students will gain an understanding of haircutting, thermal styling, permanent waving, and chemical relaxing. Previous science and structural content will be reviewed in this course in order to refresh students' knowledge for application to relevant material. In addition, students will learn techniques for basic and classic hairstyles. This course will cover the more advanced principles of hair design including braiding and extensions, wigs, and other hair enhancements.

Course Description: Applications of Cosmetology
In this course, students will gain an in depth understanding about hair coloring, facials and facial massage, makeup, and advanced nail techniques. Previous science and structural content will be reviewed in this course in order to refresh students' knowledge for application to relevant material. This course will conclude with a review of the business skills necessary to practice cosmetology.

Introduction to Cosmetology—Course Code: 994700

Unit	Unit Name	Hours
1	Program Orientation	20
2	Safety and Infection Control	50
3	Anatomy and Physiology	40
4	Introduction to Skin and Nail Care	30
Total		**140**

Basic Cosmetology—Course Code: 994701

Unit	Unit Name	Hours
5	Properties of the Hair and Scalp	60
6	Basic Chemistry and Electricity	30
7	Principles of Hair Design	20
8	Shampooing and Conditioning	30
Total		**140**

Advanced Cosmetology—Course Code: 994702

Unit	Unit Name	Hours
9	Haircutting	50
10	Hairstyling	20
11	Hair Braiding, Additions, and Enhancements	30
12	Chemical Texture Services	40
Total		**140**

Applications of Cosmetology—Course Code: 994703

Unit	Unit Name	Hours
13	Hair Coloring	40
14	Facials and Makeup	40
15	Nail Care Services	20
16	Professional Development	40
Total		**140**

Option 2—Two 2-Carnegie Unit Courses

This curriculum consists of two 2-credit courses that should be completed in the following sequence:

1. **Cosmetology I—Course Code: 994704**
2. **Cosmetology II—Course Code: 994705**

Course Description: Cosmetology I
This course introduces students to the field of cosmetology and identifies some of the current and future trends affecting the cosmetology industry and the impact that this trade has on society and the global economy. Students will explore safety, infection control, and decontamination issues associated with cosmetology. This course will give students a detailed look at the histology of the skin before allowing students to study aspects of the human anatomy and physiology to understand their importance to cosmetology. Students will be introduced to the properties of the hair and scalp. Additional science-related content will include the study of basic chemistry and electricity as it relates to cosmetology. Students will learn about the principles of hair design to understand basic techniques for styling. Then students will be introduced to scalp cleansing to understand the importance of techniques such as shampooing and conditioning.

Course Description: Cosmetology II
This course will begin to give students in-depth skills regarding theoretical and practical knowledge. Students will gain an understanding of haircutting, thermal styling, permanent waving, and chemical relaxing. In addition, students will learn techniques for basic and classic hairstyles. This course will cover the more advanced principles of hair design including braiding and extensions, wigs, and other hair enhancements. In this course, students will gain an in depth understanding about hair coloring, facials and facial massage, makeup, and advanced nail techniques. Previous science and structural content will be reviewed in this course in order to refresh students' knowledge for application to relevant material. This course will conclude with a review of the business skills necessary to practice cosmetology.

Cosmetology I—Course Code: 994704

Unit	Unit Name	Hours
1	Program Orientation	20
2	Safety and Infection Control	50
3	Anatomy and Physiology	40
4	Introduction to Skin and Nail Care	30
5	Properties of the Hair and Scalp	60
6	Basic Chemistry and Electricity	30
7	Principles of Hair Design	20
8	Shampooing and Conditioning	30
Total		**280**

Cosmetology II—Course Code: 994705

Unit	Unit Name	Hours
9	Haircutting	50
10	Hairstyling	20
11	Hair Braiding, Additions, and Enhancements	30
12	Chemical Texture Services	40
13	Hair Coloring	40
14	Facials and Makeup	40
15	Nail Care Services	20
16	Professional Development	40
Total		**280**

Career Pathway Outlook

Overview
This program is designed to provide classroom theory and practical application in tasks related to cosmetology. It prepares students for a variety of occupations in cosmetology including hairstylist, makeup artist, massage therapist, cosmetology teacher, barber, esthetician electrologist, nail technician, hair color technician, or others. Course content provides coherent and rigorous alignment with challenging academic standards and relevant technical knowledge needed to prepare for further education and careers in various fields related to cosmetology.

Needs of the Future Workforce
Mississippi classifies individuals in the cosmetology industry as personal appearance workers. Occupations within this classification include barbers, cosmetologists, nail technicians, and skincare specialists. This field is projected to grow by 6% in Mississippi. Nationwide, opportunities in this field are expected to be good overall despite a slight 1% decline for hairdressers. Future workers should expect strong competition from experienced workers in the field. Specialized services such as manicurists, pedicurists, and skincare specialists will continue to grow as consumers seek their services directly instead of from cosmetologists. Data for this synopsis was compiled from employment projections prepared by the Mississippi Department of Employment Security and the United States Department of Labor Statistics (2021).

Table 1.1: Current and Projected Occupation Report

Description	Jobs, 2016	Projected Jobs, 2026	Change (Number)	Change (Percent)	Average Hourly Earnings, 2021
Hairstylist and Cosmetologist	1,400	1,480	80	5.7%	$15.32
Manicurist/Pedicurist	240	260	20	8.3%	$14.25
Skincare Specialist	200	210	10	5%	$15.75

Source: Mississippi Department of Employment Security; mdes.ms.gov (2021).

Perkins V Requirements
The cosmetology curriculum meets Perkins V requirements of introducing students to and preparing them for high-skill, high-wage occupations in the cosmetology fields. It also offers students a program of study including secondary, postsecondary, and institutions of higher learning courses that will further prepare them for cosmetology careers. Additionally, this curriculum is integrated with academic college- and career-readiness standards. Lastly, it focuses on ongoing and meaningful professional development for teachers as well as relationships with industry.

Transition to Postsecondary Education
The latest articulation information for secondary to postsecondary can be found at the Mississippi Community College Board website, mccb.edu.

Best Practices

Innovative Instructional Technologies

Classrooms should be equipped with tools that will teach today's digital learners through applicable and modern practices. The cosmetology educator's goal should be to include teaching strategies that incorporate current technology. To make use of the latest online communication tools—wikis, blogs, podcasts, and social media platforms, for example—the classroom teacher is encouraged to use a learning management system that introduces students to education in an online environment and places more of the responsibility of learning on the student.

Differentiated Instruction

Students learn in a variety of ways, and numerous factors—students' background, emotional health, and circumstances, for example—create unique learners. By providing various teaching and assessment strategies, students with various learning preferences can have more opportunity to succeed.

CTE Student Organizations

Teachers should investigate opportunities to sponsor a student organization. There are several here in Mississippi that will foster the types of learning expected from the cosmetology curriculum. Family, Career and Community Leaders of America is an example of a student organization with many outlets for cosmetology. Student organizations provide participants and members with growth opportunities and competitive events. They also open the doors to the world of cosmetology careers and scholarship opportunities.

Cooperative Learning

Cooperative learning can help students understand topics when independent learning cannot. Therefore, you will see several opportunities in the cosmetology curriculum for group work. To function in today's workforce, students need to be able to work collaboratively with others and solve problems without excessive conflict. The cosmetology curriculum provides opportunities for students to work together and help each other complete complex tasks. There are many field experiences within the cosmetology curriculum that will allow and encourage collaboration with professionals currently in the cosmetology field.

Work-Based Learning

Work-based learning is an extension of understanding competencies taught in the cosmetology classroom. The cosmetology program requires students to obtain a minimum of 100 practical hours, which should include, but is not limited to, hands-on skills practice, field trips, observations, job-shadowing, and preferably some sort of volunteer, internship, or apprenticeship experience. These real-world connections and applications provide a link to all types of students regarding knowledge, skills, and professional dispositions. Thus, supervised collaboration and immersion into the hair care profession are keys to students' success, knowledge, and skills development.

Professional Organizations

Aesthetic International Association
iaaesthetics.org

American Association of Cosmetology Schools
beautyschools.org

Association for Career and Technical Education
acteonline.org

Associated Hair Professionals
associatedhairprofessionals.com

Associated Skin Care Professionals
ascpskincare.com

Association of Cosmetology Salon Professionals (ACSP)
mycosmetology.org

Intercoiffure America/Canada
intercoiffure.com

Mississippi ACTE
mississippiacte.com

Mississippi FCCLA
mdek12.org/cte/so/fccla

Mississippi State Board of Cosmetology (MSBC)
msbc.state.ms.us

National Coalition of Estheticians, Manufacturers/Distributors and Associations (NCEA)
ncea.tv

National Family, Career and Community Leaders of America (FCCLA)
hfcclainc.org

Professional Beauty Association
probeauty.org

The American Hair Loss Council
ahlc.org

Using This Document

Competencies and Suggested Objectives
A competency represents a general concept or performance that students are expected to master as a requirement for satisfactorily completing a unit. Students will be expected to receive instruction on all competencies. The suggested objectives represent the enabling and supporting knowledge and performances that will indicate mastery of the competency at the course level.

Teacher Resources
Teacher resources for this curriculum may be found in multiple places. Many program areas have teacher resource documents that accompany the curriculum and can be downloaded from the same site as the curriculum. The teacher resource document contains references, lesson ideas, websites, teaching and assessment strategies, scenarios, skills to master, and other resources divided by unit. This document could be updated periodically by RCU staff. Please check the entire document, including the entries for each unit, regularly for new information. If you have something you would like to add or have a question about the document, call or email the RCU's instructional design specialist for your program. The teacher resource document can be downloaded at rcu.msstate.edu/curriculum/curriculumdownload.aspx. All teachers should request to be added to the Canvas Resource Guide for their course. This is where all resources will be housed in the future if they are not already. To be added to the guide, send a Help Desk ticket to the RCU by emailing helpdesk@rcu.msstate.edu.

Perkins V Quality Indicators and Enrichment Material
Some of the units may include an enrichment section at the end. If the cosmetology program is currently using the Mississippi Career Planning and Assessment System (MS-CPAS) as a measure of accountability, the enrichment section of material will not be tested. If this is the case, it is suggested to use the enrichment material when needed or desired by the teacher and if time allows in the class. This material will greatly enhance the learning experiences for students. If, however, the cosmetology program is using a national certification, work-based learning, or other measure of accountability that aligns with Perkins V as a quality indicator, this material could very well be tested on that quality indicator. It is the responsibility of the teacher to ensure all competencies for the selected quality indicator are covered throughout the year.

Unit 1: Program Orientation

Competencies and Suggested Objectives
1. Discuss the expectations, procedures, and opportunities in the cosmetology program. DOK1 a. Review the curriculum standards, competencies, and objectives. b. Explain school and program policies for emergency procedures and the proper use of lab equipment. c. Identify leadership opportunities in student organizations, such as SkillsUSA. d. Demonstrate 100% accuracy on a federally required safety test.
2. Describe how cosmetology has been influenced by historical events and individual contributions over the years. DOK1 a. Illustrate major advancements and contributions made in cosmetology during significant periods of history. • Renaissance • Victorian • Twentieth century • Twenty-first century
3. Demonstrate personal and employability skills that are beneficial for a successful career in cosmetology. DOK1 a. Develop skills and habits that are necessary to establish and maintain a successful career in cosmetology. • Communication • Setting goals • Time management • Study skills • Professional ethics and image • Good attitude and personality b. Create a mission statement that supports personal and professional goals.
4. Discuss career opportunities available in the cosmetology industry.DOK1 a. Research the education and training required for various career paths in cosmetology. • Hair stylist • Hair color specialist • Texture specialist • Cutting specialist • Salon trainer • Salon manager • Instructor • Esthetician • Nail technician

Note: This unit will be taught throughout the year. Time on tasks will be distributed over the entire year. Students are required to complete a written safety test with 100% accuracy before beginning lab experiences. This test should be documented in each student's file.

Unit 2: Safety and Infection Control

Competencies and Suggested Objectives
1. Describe principles established to prevent or control the spread of infections and diseases in a salon environment.[DOK2] a. Examine the role of state and federal regulatory agencies and the standards they set for the hair care industry. • Occupational Safety and Health Administration (OSHA) • Environmental Protection Agency (EPA) • Center for Disease Control and Prevention (CDC) • Mississippi State Department of Health (MSDH)
2. Demonstrate methods of decontamination, disinfection, and sterilization to prevent and control the spread of disease in a salon environment.[DOK2] a. Identify infections within the four groups of organisms that are a potential danger in a salon environment. • Bacteria • Viruses • Fungi • Parasites b. Explain the steps involved in the two types of decontamination methods. c. Identify the various types of disinfectants based on the recommended use in salons. • Antiseptics • Bleach • Phenolic • Quats • Chelating soaps d. Describe universal precautions and the process for cleaning tools, equipment, and salon surfaces.

Enrichment
1. Pursue a CPR and first aid certification.

Unit 3: Anatomy and Physiology

Competencies and Suggested Objectives
1. Relate an understanding of the basic structure and functions of the human body to the application of services and treatment to clients.[DOK2] a. Describe the basic structure of cells, how they function, and the cell reproduction process. b. Identify the different types of tissue found in the body based on function and location. • Connective • Epithelial • Muscle • Nerve c. Explain the basic functions of the major body organs. • Brain • Heart • Kidneys • Liver • Skin • Stomach d. Identify and explain the functions of the main body systems. • Skeletal • Muscular • Nervous • Lymphatic • Excretory • Reproductive • Integumentary • Circulatory • Endocrine • Digestive • Respiratory

Unit 4: Introduction to Skin and Nail Care

Competencies and Suggested Objectives
1. Relate the basic elements of the skin's anatomy and functions to the techniques that support skin care services.[DOK2] a. Describe the two main layers of the skin and their structures and functions. b. Identify the causes of various conditions in the main types of skin disorders. • Lesions • Glands • Infections • Pigment • Cancer • Acne c. Explain how intrinsic and extrinsic factors, such as aging and dermatitis, affect the skin and identify methods of protection from each factor.
2. Relate the basic elements of nail anatomy and health to the application of nail care services.[DOK2] a. Describe elements of the nail structure, composition, and growth process. • Nail plate • Nail bed • Matrix • Cuticle • Eponychium • Hyponychium • Ligaments • Nail folds b. Recognize nail diseases and disorders and identify which conditions can be treated in a salon. • Bruised • Hangnail • Discolored • Onychia • Psoriasis • Tinea pedis
3. Relate diet and nutrition principles to beauty care maintenance. [DOK2] a. Identify how essential nutrients benefit the skin, nails, and hair. • Water • Carbohydrates • Fats • Minerals • Proteins • Vitamins b. Identify food sources for essential vitamins such as A, C, D, and E.

c. Explain the basic food groups and identify the recommended amounts in each to support health.
    - Grains
    - Vegetables
    - Fruit
    - Milk
    - Meat and beans

Unit 5: Properties of the Hair and Scalp

Competencies and Suggested Objectives
1. Develop natural hair care techniques based on structural properties, textural forms, and the hair growth process.[DOK2] a. Identify the parts of a hair strand. b. Describe the composition and characteristics of the hair root and shaft. c. Examine the chemical composition of hair and its reaction when various products are applied during the styling process. d. Demonstrate a hair analysis. e. Explain the different phases of the hair growth process.
2. Demonstrate hair management skills to apply on all hair types. [DOK2] a. Distinguish between hair type, texture, and curl configuration. b. Identify properties of natural hair textures. • Wavy • Kinky • Wiry • Curly (loose and tight) • Coily (loose and tight)
3. Describe conditions and remedies of hair and scalp disorders. [DOK2] a. Explain how various conditions can lead to hair loss. • Hereditary • Aging • Nutrition • Hormones • Medications • Health issues b. Identify hair disorders and diseases of the hair and scalp and the appropriate treatments. • Canities (gray hair) • Hypertrichosis • Trichoptilosis • Chemical damage c. Identify scalp disorders or conditions and the appropriate treatment. • Seborrheic dermatitis • Dandruff • Alopecia • Folliculitis keloidalis

Unit 6: Basic Chemistry and Electricity

Competencies and Suggested Objectives

1. Apply basic chemistry concepts that affect the hair, skin, and nails and are essential for providing salon services.[DOK2]
   a. Define chemistry and explain the difference between organic and inorganic substances.
   b. Describe matter and identify the types of substances found in its three states: solid, liquid, and gas.
   c. Identify the processes that occur during the physical and chemical changes of matter.
      - Oxidation
      - Redox
      - Reduction
   d. Describe the differences between solutions, suspensions, and emulsions and identify the salon products within each category.
   e. Explain how chemical properties and compound reactions affect the hair, skin, and salon products.
      - Potential hydrogen (pH)
      - pH scale
      - acids
      - alkalis
   f. Identify and describe purpose of chemical ingredients found in many salon products used by cosmetologists.
      - Alkanolamines
      - Ammonia
      - Glycerin
      - Silicones
      - Volatile alcohols
      - Volatile organic compounds
2. Apply basic concepts of electricity that impact the services and salon environment provided by cosmetologists.[DOK2]
   a. Explain the nature of electricity and the two types of electric currents.
      - Electric current
      - Conductor
      - Nonconductor
      - Direct current
      - Alternating current
   b. Identify the different types of electrical measurements.
      - Volt
      - Ampere
      - Milliampere
      - Ohm
      - Watt
      - Kilowatt

c. Explain how certain devices and processes promote safety with electricity.
    - Fuse
    - Circuit breaker
    - Grounding
    - UL guidelines
d. Identify the purpose of common types of electrical equipment and tools used by cosmetologists.
    - Hair dryers
    - Curling irons
    - Heating caps
    - Steaming or vaporizing products
    - Light therapy equipment

Unit 7: Principles of Hair Design

Competencies and Suggested Objectives
1. Demonstrate skills that support the artistic and creative process of hair design.[DOK2] a. Explain the five elements of design for creating hair styles. • Line • Form • Space • Texture • Color b. Describe the five principles of design that cosmetologists should consider when creating hair styles. • Proportion • Balance • Rhythm • Emphasis • Harmony c. Explore characteristics that define facial structures. • Oval • Square • Diamond • Round • Oblong • Triangular d. Demonstrate design principles based on special features. • Facial profiles • Hair partings • Wearing eyeglasses • Head and forehead shape • Oblong • Triangular (pear or heart shaped) • Designing for men

Unit 8: Shampooing and Conditioning

Competencies and Suggested Objectives
1. Identify salon skills and techniques that promote quality scalp care services.[DOK2] a. Explain the purpose and process of scalp treatments for various hair types and conditions. • Normal hair • Dry hair • Oily • Antidandruff treatment • Hair brushing b. Identify the function and benefit of various types of shampoos based on hair types and conditions. • pH-balanced • Conditioning • Medicated • Clarifying • Balancing • Dry c. Identify the function and benefit of various types of conditioners based on hair types and conditions. • Rinse-out • Treatment or repair • Leave-in • Deep conditioning
2. Demonstrate the steps to perform scalp treatments for basic hair types and conditions.[DOK3] a. Perform the steps in the pre-service procedure. • Cleaning and disinfecting • Station set up • Stylist preparation • Greet client b. Perform the steps in the post service procedure. • Maintenance tips • Schedule next appointment • Clean and prepare work area

Unit 9: Haircutting

Competencies and Suggested Objectives

1. Demonstrate the basic principles of hair cutting that support the foundation of hair design.[DOK2]
   a. Describe the elements for the focus areas of the head that promote quality haircut services.
      - Reference points
      - Areas of the head
      - Elevation
      - Cutting lines
      - Guidelines
      - Over direction
   b. Identify the purpose of the factors involved in a client consultation prior to a cutting service.
      - Client analysis
      - Face shape
      - Hair analysis
      - Wave pattern
   c. Identify the purpose and proper handling techniques of basic hair cutting tools.
      - Shears
      - Razors
      - Clippers
      - Combs
      - Trimmers
      - Sectioning clips
   d. Demonstrate the steps to perform basic cutting techniques, such as, blunt, graduated, and layered methods.
   e. Describe the purpose and the tools used in advanced cutting procedures.
      - Bangs
      - Curly hair
      - Razor cutting
      - Slide cutting
      - Scissor-over-comb
      - Clippers and trimmers

Unit 10: Hairstyling

Competencies and Suggested Objectives
1. Apply foundational skills and techniques to create hairstyles for clients. DOK2 a. Identify the products and tools required to create wet hairstyling techniques such as finger waves, pin curls, and roller curls. b. Explain the steps to achieve the desired outcome of various styling techniques. • Backcombing and back brushing • Hair wrapping • Blow-dry styling c. Describe the design purposes of thermal hairstyling and the proper use of thermal irons. d. Identify the materials and procedures to implement various hairstyling techniques for left or right-handed stylists. • Horizontal finger waving • Curved or sculpted curls • Wet set with rollers • Blow-drying finishes and hair types • Curling short and medium length hair

Unit 11: Hair Braiding, Additions, and Enhancements

Competencies and Suggested Objectives

1. Demonstrate braiding and braid extension techniques that provide styles that are specific to clients' specific hair textures.[DOK2]
   a. Conduct a hair analysis to determine the texture, density, and condition of the hair prior to services.
   b. Identify the types and purpose of various essential tools to perform braiding techniques.
      - Brushes
      - Combs
      - Dryers
      - Diffuser
      - Clips
   c. Identify the types and purposes of various materials to perform braiding techniques.
      - Human hair
      - Kanekalon
      - Nylon or synthetic
      - Yarn
      - Lin
      - Yak
   d. Demonstrate the methods and materials involved in the preparation, procedure, and post-service steps of various braiding services.
      - Rope braid
      - Fishtail braid
      - Invisible braid
      - Single braids with and without extensions
      - Cornrows with extensions

2. Identify the benefits and style techniques of hair additions and enhancements .[DOK2]
   a. Compare human and synthetic hair based on their advantages, disadvantages, quality, and cost.
   b. Identify the different types of wigs and the construction and measurement methods.
      - Cap
      - Capless
      - Hand-tied
      - Semi-hand-tied
      - Machine-made
   c. Demonstrate techniques to perform certain procedures of a wig service, including cutting, cleaning, and coloring.
   d. Describe the purpose and methods to apply different types of hairpieces, such as integration, toupees, and fashion additions.
   e. Explain the purpose and procedures to apply different types of hair extensions, such as bonding, fusion bonding, and braid-and-sew methods.

Unit 12: Chemical Texture Services

Competencies and Suggested Objectives
1. Identify principles that cause a chemical change and alter the natural wave pattern of the hair. DOK1 a. Review the structure, characteristics, and purpose of each layer of the hair. b. Explain the chemical process and techniques of permanent waves. c. Describe the difference between the various types of permanent waves. • Acid waves • True acid waves • Exothermic waves • Acid-balanced waves • Ammonia-free waves • Thio-free waves • Low-pH waves • Alkaline waves or cold waves d. Identify the steps involved in the process for selecting the appropriate type of permanent wave based on different hair types. e. Explain the difference between thio and hydroxide relaxers.
2. Demonstrate the techniques and procedures to provide chemical texture services.DOK3 a. Preliminary test curl for a permanent wave b. Permanent wave and processing using a basic permanent wrap c. Permanent wave and processing using a curvature permanent wrap d. Applying thio relaxer to virgin hair e. Applying hydroxide relaxer to virgin hair f. Thio and hydroxide relaxer retouches

Unit 13: Hair Coloring

Competencies and Suggested Objectives
1. Apply principles of the hair, color, and design to establish the foundation for quality hair coloring techniques in the salon. DOK3 a. Identify the role hair structures such as texture, density, and porosity have in the hair coloring process. b. Explain the elements that are necessary to consider when identifying natural hair color and tones. • Melanin • Undertones • Level system • Gray hair • Color theory c. Describe the general use of the various types of hair colorings and processes. • Temporary • Semi-permanent • Demi-permanent • Permanent • Lighteners • Decolorizing process • Natural and metallic colors • Hydrogen peroxide developer
2. Demonstrate techniques of the hair coloring process. DOK2 a. Explain the steps of communication and preparation necessary for the hair coloring service. • Consultation • Release form • Hair color formulation • Mixing permanent colors b. Explain the procedures to apply hair color, including the safety precautions for each step. • Preliminary strand test • Temporary hair color • Semi-permanent • Single process • Permanent single process retouch with a glaze c. Describe the purpose of the various types of lighteners, toners, and highlighting. d. Describe the guidelines to follow for color correction and how to properly color gray hair.

Unit 14: Facials and Makeup

Competencies and Suggested Objectives

1. Apply techniques to provide hair removal services in a salon. DOK3
   a. Identify the purpose of hair removal services and explain the factors involved in the client consultation process, including conditions for not performing the services.
   b. Describe the purpose of the various types of permanent and temporary hair removal techniques.
      - Electrolysis
      - Photo epilation
      - Laser
      - Shaving
      - Tweezing
      - Threading
   c. Demonstrate the steps involved in the pre- and post-service phases for various types of hair removal services.
      - Eyebrow tweezing
      - Eyebrow waxing
      - Body waxing

2. Apply techniques to perform facials in a salon. DOK3
   a. Identify the purposes of facials and explain the factors involved in the client consultation process, including conditions for not performing the service.
   b. Identify the signs associated with analyzing skin types and conditions.
      - Oily
      - Dry
      - Normal
      - Acne
      - Combination dry and oily
   c. Describe the purpose and proper use of the various types of skin care products.
      - Cleansers
      - Exfoliants
      - Toners
      - Peels
      - Moisturizers
      - Masks
      - Sunscreens and day protections
   d. Demonstrate the steps to perform a basic massage and describe the effects of the various movements and manipulations.
   e. Demonstrate the guidelines, procedures, and use of proper equipment to perform various types of facial treatments.
      - Basic
      - Dry skin
      - Oily skin

- Acne-prone
- Aromatherapy

3. Apply basic makeup techniques that enhance the beauty care services in a salon. DOK3
   a. Identify the purpose of various types of cosmetics and the proper tools used to apply each.
      - Foundation
      - Concealers
      - Face powder
      - Cheek color
      - Lip color
      - Eye shadow
      - Eyeliners
      - Mascara
   b. Explain the makeup color theory and how colors are chosen based on a client's skin, eye, and hair color.
   c. Demonstrate the steps to perform various types of professional makeup applications.
      - Basic
      - Corrective
      - Special occasion
      - Band lashes

Unit 15: Nail Care Services

Competencies and Suggested Objectives
1. Demonstrate the fundamental techniques to provide a professional manicure.[DOK2] a. Identify the purpose of the different types of nail technology tools including their safety, cleaning, and disinfecting procedures. • Equipment • Implements • Materials • Products b. Demonstrate the techniques in each step of the different types of manicure services. • Basic manicure • Hand and arm massage • Polishing the nails • Paraffin wax treatment
2. Demonstrate the fundamental techniques to provide a professional pedicure. [DOK2] a. Identify the purpose of the different types of nail technology tools including their safety, cleaning, and disinfecting procedures. • Equipment • Implements • Materials • Products b. Demonstrate the techniques in each step of a basic pedicure, including the foot and leg massage.
3. Apply techniques to provide nail enhancing services for clients. [DOK3] a. Describe the function of different types of nail tips, the required supplies, and how to properly fit them on the clients. b. Identify the function of different types of nail wraps. • Fabric • Silk • Fiberglass • Paper • Linen c. Demonstrate the techniques to apply, maintain, repair, and remove nail tips and wraps. d. Demonstrate the application, maintenance, and removal techniques for monomer liquid and polymer powder nail enhancement services. e. Demonstrate the application, maintenance, and removal techniques for UV gel procedures.

Unit 16: Professional Development

Competencies and Suggested Objectives
1. Describe the requirements and process to practice cosmetology.[DOK2] a. Review the Mississippi State Board of Cosmetology's website and identify the rules and regulations for becoming a licensed cosmetologist. • Theoretical hours • Practical hours • Written exam • Practical exam b. Demonstrate techniques to obtain employment as a cosmetologist. • Potential salons research • Résumé preparation • Employment portfolio development • Interview preparation
2. Demonstrate business knowledge and skills that are necessary to operate a salon. [DOK2] a. Compare the differences between salon ownership and renting a booth in an existing salon. b. Describe the different types of salon ownership. • Individual • Partnership • Corporation • Franchise c. Develop the necessary business skills and procedures to successfully manage a salon. • Pricing of servicing • Customer service • Computer skills • Management • Record keeping • Managing clients and appointments

Student Competency Profile

Student's Name: _____

This record is intended to serve as a method of noting student achievement of the competencies in each unit. It can be duplicated for each student, and it can serve as a cumulative record of competencies achieved in the course.

In the blank before each competency, place the date on which the student mastered the competency.

Unit 1: Program Orientation		
	1.	Discuss the expectations, procedures, and opportunities in the cosmetology program.
	2.	Describe how cosmetology has been influenced by historical events and individual contributions over the years.
	3.	Demonstrate personal and employability skills that are beneficial for a successful career in cosmetology.
	4.	Discuss career opportunities available in the cosmetology industry.
Unit 2: Safety and Infection Control		
	1.	Describe principles established to prevent or control the spread of infections and diseases in a salon environment.
	2.	Demonstrate methods of decontamination, disinfection, and sterilization to prevent and control the spread of disease in a salon environment.
Unit 3: Anatomy and Physiology		
	1.	Relate an understanding of the basic structure and functions of the human body to the application of services and treatment to clients.
Unit 4: Introduction to Skin and Nail Care		
	1.	Relate the basic elements of the skin's anatomy and functions to the techniques that support skin care services.
	2.	Relate the basic elements of nail anatomy and health to the application of nail care services.
	3.	Relate diet and nutrition principles to beauty care maintenance.
Unit 5: Properties of the Hair and Scalp		
	1.	Develop natural hair care techniques based on structural properties, textural forms, and the hair growth process.
	2.	Demonstrate hair management skills to apply on all hair types
	3.	Describe conditions and remedies of hair and scalp disorders.
Unit 6: Basic Chemistry and Electricity		
	1.	Apply basic chemistry concepts that affect the hair, skin, and nails and are essential for providing salon services.

	2.	Apply basic concepts of electricity that impact the services and salon environment provided by cosmetologists.
Unit 7: Principles of Hair Design		
	1.	Demonstrate skills that support the artistic and creative process of hair design.
Unit 8: Shampooing and Conditioning		
	1.	Identify salon skills and techniques that promote quality scalp care services.
	2.	Demonstrate the steps to perform scalp treatments for basic hair types and conditions.
Unit 9: Haircutting		
	1.	Demonstrate the basic principles of hair cutting that support the foundation of hair design.
Unit 10: Hairstyling		
	1.	Apply foundational skills and techniques to create hairstyles for clients.
Unit 11: Hair Braiding, Additions, and Enhancements		
	1.	Demonstrate braiding and braid extension techniques that provide styles that are specific to clients' specific hair textures.
	2.	Identify the benefits and style techniques of hair additions and enhancements.
Unit 12: Chemical Texture Services		
	1.	Identify principles that cause a chemical change and alter the natural wave pattern of the hair.
	2.	Demonstrate the techniques and procedures to provide chemical texture services.
Unit 13: Hair Coloring		
	1.	Apply principles of the hair, color, and design to establish the foundation for quality hair coloring techniques in the salon.
	2.	Demonstrate techniques of the hair coloring process.
Unit 14: Facials and Makeup		
	1.	Apply techniques to provide hair removal services in a salon.
	2.	Apply techniques to perform facials in a salon.
	3.	Apply basic makeup techniques that enhance the beauty care services in a salon.
Unit 15: Nail Care Services		
	1.	Demonstrate the fundamental techniques to provide a professional manicure.
	2.	Demonstrate the fundamental techniques to provide a professional pedicure.
	3.	Apply techniques to provide nail enhancing services for clients.
Unit 16: Professional Development		
	1.	Describe the requirements and process to practice cosmetology.
	2.	Demonstrate business knowledge and skills that are necessary to operate a salon.

Appendix A: Unit References

Suggested resources are listed below.

Cosmetology basic operator. (1999). Stillwater, OK: Curriculum and Instructional Materials Center.

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Local administrative policies and procedures

Milady standard textbook of cosmetology. (2012). Clifton Park, NY: Cengage.

Milady's standard: Nail technology exam review (4th ed.). (2003). New York: Milady Thomson Learning.

Mississippi cosmetology candidate handbook (2014). Jackson, MS: Mississippi State Board of Cosmetology (MSBC).

Occupational Safety and Health Administration (OSHA) regulations. (n.d.). Retrieved November 17, 2004, from http://www.osha.gov

Pivot Point International Inc. (n.d.). Retrieved September 14, 2004, from http://www.pivot-point.com

Appendix B: Industry Standards

National Skills Standards for Cosmetology and Standards for Licensing of Instructors

	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Standard																	
NSSC1		X	X														X
NSSC2			X				X										X
NSSC3			X				X										X
NSSC4		X	X				X			X	X	X	X	X		X	X
NSSC5			X		X	X			X			X	X	X	X	X	
NSSC6				X											X		
NSSC7				X	X	X			X	X					X		
NSSC8					X	X				X					X		
NSSC9					X											X	
NSSC10					X						X					X	
NSSC11						X			X			X	X	X	X		
NSSC12						X	X		X				X	X	X	X	
NSSC13							X			X		X	X			X	
NSSC14						X	X	X		X	X	X	X	X			
NSSC15						X	X		X		X	X	X	X			
NSSC16						X	X	X	X		X	X					
NSSC17						X	X	X	X		X	X	X				
NSSC18						X	X	X	X		X	X					
NSSC19			X			X	X	X	X		X	X					
NSSC20						X	X		X		X	X	X	X	X		
NSSC21						X	X		X		X	X	X	X			
NSSC22			X		X										X		
NSSC23			X		X										X		
NSSC24					X										X		
NSSC25			X		X		X									X	
NSSC26			X		X		X									X	
NSSC27			X		X		X									X	
NSSC28			X				X									X	
NSSC29			X				X									X	
NSSC30									X								X
NSSC31									X								X
NSSC32									X	X	X	X	X	X	X	X	X

[1] *Milady's standard cosmetology*. (2012). Clifton Park, NY: Cengage Learning. (http://www.milady.com)

NSSC1 *History and career opportunities.*
Explain the origins of appearance enhancement.
Name the advancements made in cosmetology during the nineteenth, twentieth, and early twenty-first centuries.

NSSC2 *Life skills.*
List the principles that contribute to personal and professional success.

Create a mission statement.
Explain how to set long-term and short-term goals.
Discuss the most effective ways to manage time.
Describe good study habits.
Define ethics.
List the characteristics of a healthy, positive attitude.

NSSC3 *Your professional image.*
Understand the importance of professional hygiene.
Explain the concept of dressing for success.
Demonstrate an understanding of ergonomic principles and ergonomically correct postures and movement.

NSSC4 *Communicating for success.*
List the golden rules of human relations.
Explain the definition of effective communication.
Conduct a successful client consultation/needs assessment.
Handle an unhappy client.
Build open lines of communication with coworkers.

NSSC5 *Infection control: principles and practices.*
Understand state laws and rules and the difference between them.
List the types and classifications of bacteria.
Define hepatitis and Human Immunodeficiency Virus (HIV) and explain how they are transmitted.
Explain the differences between cleaning, disinfecting, and sterilizing.
List the types of disinfectants and how they are used.
Discuss universal precautions.
List your responsibilities as a salon professional.
Describe how to safely clean and disinfect salon tools and implements.

NSSC6 *General anatomy and physiology.*
Define and explain the importance of anatomy, physiology, and histology to the cosmetology profession.
Describe cells, their structure, and their reproduction.
Define tissue and identify the types of tissues found in the body.
Name the nine major body organs and the eleven main body systems and explain their basic functions.

NSSC7 *Skin structures and growth.*
Describe the structure and composition of the skin.
List the functions of the skin.
List the classes of nutrients essential for good health.
List the food groups and dietary guidelines recommended by the U.S. Department of Agriculture (USDA).
List and describe the vitamins that can help the skin.

NSSC8 *Skin disorders and diseases.*
Recognize common skin lesions.
Describe the disorders of the sebaceous glands.
Name and describe changes in skin pigmentation.
Identify the forms of skin cancer.
Understand the two major causes of acne and how to treat them.
List the factors that contribute to the aging of the skin.
Explain the effects of overexposure to the sun on the skin.
Understand what contact dermatitis is and know how it can be prevented.

NSSC9 *Nail structure and growth.*
Describe the structure and composition of nails.
Discuss how nails grow.

NSSC10 *Nail disorders and diseases.*
List and describe the various disorders and irregularities of nails.
Recognize diseases of the nails that should not be treated in the salon.

NSSC11 *Properties of the hair and scalp.*
Name and describe the structures of the hair root.
List and describe the three main layers of the hair shaft.
Describe the hair growth cycles.
Discuss the types of hair loss and their causes.
Describe the options for hair loss treatments.
Recognize hair and scalp disorders commonly seen in the salon and school and know which ones can be treated by cosmetologists.
List and describe the factors that should be considered in a hair and scalp analysis.

NSSC12 *Basics of chemistry.*
Explain the difference between organic and inorganic chemistry.
Describe the different states of matter: solid, liquid, and gas.
Describe oxidation-reduction (redox) reactions.
Explain the differences between pure substances and physical mixtures.
Explain the difference among solutions, suspensions, and emulsions.
Explain pH and the pH scale.

NSSC13 *Basics of electricity.*
Define the nature of electricity and the tow types of electric current.
Define electrical measurements.
Understand the principles of electrical equipment safety.
Define the main electric modalities used in cosmetology.
Describe other types of electrical equipment that cosmetologists use and describe how to use them.
Explain electromagnetic spectrum, visible spectrum of light, and invisible light.
Describe the types of light therapy and their benefits.

NSSC14 *Principles of hair design.*
Describe the possible sources of hair design inspiration.
List the five elements of hair design.
List the five principles of hair design.
Understand the influence of hair type on hairstyle.
Identify different facial shapes and demonstrate how to design hairstyles to enhance or camouflage facial features.
Explain design consideration for men.

NSSC15 *Scalp care, shampooing, and conditioning.*
Explain the two most important requirements for scalp care.
Describe the benefits of scalp massage.
Treat scalp and hair that are dry, oily, or dandruff ridden.
Explain the role of hair brushing to a healthy scalp.
Discuss the uses and benefits of the various types of shampoo.
Discuss the uses and benefits of the various types of conditioner.
Demonstrate the appropriate draping for a basic shampooing and conditioning, and draping for a chemical service.
Identify the Three-Part Procedure and explain why it is useful.

NSSC16 *Haircutting.*
Identify reference points on the head form and understand their role in haircutting.
Define angles, elevations, and guidance.
List the factors involved in a successful client consultation.
Explain the use of the various tools of haircutting.
Name three things you can do to ensure good posture and body position while cutting hair.
Perform the four basic haircuts.
Discuss and explain three different texturizing techniques performed with shears.
Explain what a clipper cut is.
Identify the uses of a trimmer.

NSSC17 *Hairstyling.*
Demonstrate finger waving, pin curling, roller setting, and hair wrapping.
Demonstrate various blow-dry styling techniques.
Demonstrate the proper use of thermal irons.
Demonstrate various thermal iron manipulations and explain how they are used.
Describe the three types of hair pressing.
Demonstrate the procedures for soft pressing and hard pressing.
Demonstrate three basic techniques of styling long hair.

NSSC18 *Braiding and braid extensions.*
Explain how to prepare the hair for braiding.
Demonstrate the procedure for cornrowing.

NSSC19 *Wigs and hair additions.*
Explain the differences between human hair and synthetic hair.
Describe the two basic categories of wigs.
Describe several types of hairpieces and their uses.
Explain several different methods of attaching hair extensions.

NSSC20 *Chemical texture services.*
Explain the structure and purpose of each of the hair's layers.
Explain chemical actions that take place during permanent waving.
Explain the difference between an alkaline wave and a true acid wave.
Explain the purpose of neutralization in permanent waving.
Describe how thio relaxers straighten the hair.
Describe how hydroxide relaxers straighten the hair.
Describe curl re-forming and what it is best used for.

NSSC21 *Haircoloring.*
List the reasons why people color their hair.
Explain how the hair's porosity affects hair color.
Understand the types of melanin found in hair.
Define and identify levels and their role in formulating hair color.
Identify primary, secondary, and tertiary colors.
Know what roles tone and intensity play in hair color.
List and describe the categories of hair color.
Explain the role of hydrogen peroxide in a hair color formula.
Explain the action of high lighteners.
List the four key questions to ask when formulating a hair color.
Understand why a patch test is useful in haircoloring.
Define what a preliminary strand test is and why it is used.
List and describe the procedure for a virgin single-process color service.
Understand the two processes involved in a double process haircoloring.
Describe the various forms of hair lightener.
Understand the purpose and use of toners.

Name and describe the three most commonly used methods for highlighting.
Know how to properly cover gray hair.
Know the rules of color correction.
Know the safety precautions to follow during the hair color process.

NSSC22 *Hair removal.*
Describe the elements of a client consultation for hair removal.
Name the conditions that contraindicate hair removal in the salon.
Identify and describe three methods of permanent hair removal.
Demonstrate the techniques involved in temporary hair removal.

NSSC23 *Facials.*
Explain the importance of skin analysis and client consultation.
Understand contraindications and the use of a health screening form to safely perform facial treatments.
List and describe various skin types and conditions.
Describe different types of products used in facial treatments.
Perform a client consultation.
Identify the various types of massage movements and their physiological effects.
Describe the basic types of electrical equipment used in facial treatments.
Identify the basic concepts of electrotherapy and light therapy techniques.

NSSC24 *Facial makeup.*
Describe the various types of cosmetics and their uses.
Demonstrate an understanding of cosmetic color theory.
Perform a consultation for the basic makeup procedure for any occasion.
Understand the use of special occasion makeup.
Identify different facial types and demonstrate procedures for basic corrective makeup.
Demonstrate the application and removal of artificial lashes.

NSSC25 *Manicuring.*
Identify the four types of nail implements and/or tools required to perform a manicure.
Explain the difference between reusable and disposable implements.
Describe the importance of hand washing in nail services.
Explain why a consultation is necessary each time a client has a service in the salon.
Name the five basic nail shapes for women.
Name the most popular nail shape for men.
List the types of massage movements most appropriate for a hand and arm massage.
Explain the difference between a basic manicure and a spa manicure.
Describe how aromatherapy is used in manicuring services.
Explain the use and benefits of paraffin wax in manicuring.
Name the correct cleaning and disinfection procedure for nail implements and tools.
Describe a proper setup for the manicuring table.
List the steps in the post-service procedure.
List the steps taken if there is an exposure incident in the salon.
List the steps in the basic manicure.
Describe the proper technique for the application of nail polish.
Describe the procedure for a paraffin wax hand treatment before a manicure.

NSSC26 *Pedicuring.*
Identify and explain the equipment used when performing pedicures.
Identify and explain three materials used when performing pedicures.
Describe a callus softener and how it is best used.
Explain the differences between a basic and a spa pedicure.
Describe reflexology and its use in pedicuring.
Know why consistent cleaning and disinfection of pedicure baths must be performed.

Know and describe the steps involved in the proper cleaning and disinfecting of whirlpool foot spas and air-jet basins.
Demonstrate the proper procedures for a basic pedicure.
Demonstrate a foot and leg massage.

NSSC27 *Nail tips and wraps*.
Identify the supplies, in addition to your basic manicuring table, that you need for nail tip application.
Name and describe the types of nail tips available and why it is important to properly fit them for your client.
List the types of fabrics used in nail wraps and explain the benefits of using each.
Demonstrate the stop, rock, and hold method of applying nail tips.
Demonstrate the Nail Tip Application Procedure.
Demonstrate the Nail Tip Removal Procedure.
Demonstrate the Nail Wrap Application Procedure.
Describe the main difference between performing the Two-Week Fabric Wrap Maintenance and the Four-Week Fabric Wrap Maintenance.
Demonstrate how to remove fabric wraps and what to avoid.

NSSC28 *Monomer liquid and polymer.*
Explain monomer liquid and polymer powder nail enhancement chemistry and how it works.
Describe the apex, stress area, and sidewall, and tell where each is located on the nail enhancement.
Demonstrate the proper procedures for applying one-color monomer liquid and polymer powder nail enhancements over tips and natural nails.
Demonstrate the proper procedures for applying two-color monomer liquid and polymer powder nail enhancements using forms over nail tips and on natural nails.
Describe how to perform a one-color maintenance service on nail enhancements using monomer liquid and polymer powder.
Demonstrate how to perform crack repair procedures.
Implement the proper procedure for removing monomer liquid and polymer powder nail enhancements.

NSSC29 *UV gels.*
Describe the chemistry and main ingredients of UV gels.
Describe when to use the one-color and two-color methods for applying UV gels.
Name and describe the types of UV gels used in current systems.
Identify the supplies needed for UV gel application.
Determine when to use UV gels.
Discuss the differences between UV light units and UV lamps.
Describe how to apply one-color UV gel on tips and natural nails.
Describe how to apply UV gels over forms.
Describe how to maintain UV gel nail enhancements.
Explain how to correctly remove hard UV gels.
Explain how to correctly remove soft UV gels.

NSSC30 *Seeking employment.*
Understand what is involved in securing the required credentials for cosmetology in your state and know the process for taking and passing your state licensing examination.
Start networking and preparing to find a job by using the Inventory or Personal Characteristics and Technical Skills.
Describe the different salon business categories.
Write a cover letter and resume and prepare an employment portfolio.
Know how to explore the job market, research, potential employers, and operate within the legal aspects of employment.

NSSC31 *On the job.*

Describe what is expected of a new employee and what this means in terms of your everyday behavior.
List the habits of a good salon team player.
Describe three different ways in which salon professionals are compensated.
Explain the principles of selling products and services in the salon.
List the most effective ways to build a client base.

NSSC32 *The salon business.*

Identify two options for going into business for yourself.
Understand the responsibilities of a booth renter.
List the basic factors to be considered when opening a salon.
Distinguish the types of salon ownership.
Identify the information that should be included in a business plan.
Understand the importance of record keeping.
Recognize the elements of successful salon operations.
Explain why selling services and products is a vital aspect of a salon's success.

2015 Cosmetology

Mississippi Department of Education

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Direct inquiries to

Instructional Design Specialist
Research and Curriculum Unit
P.O. Drawer DX
Mississippi State, MS 39762
662.325.2510

Program Coordinator
Office of Career and Technical Education
Mississippi Department of Education
P.O. Box 771
Jackson, MS 39205
601.359.3461

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Research and Curriculum Unit
Mississippi State University
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The Research and Curriculum Unit (RCU), located in Starkville, MS, as part of Mississippi State University, was established to foster educational enhancements and innovations. In keeping with the land-grant mission of Mississippi State University, the RCU is dedicated to improving the quality of life for Mississippians. The RCU enhances intellectual and professional development of Mississippi students and educators while applying knowledge and educational research to the lives of the people of the state. The RCU works within the contexts of curriculum development and revision, research, assessment, professional development, and industrial training.

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Standards

Standards are superscripted in each unit and are referenced in the appendices. Standards in the *Cosmetology Curriculum Framework and Supporting Materials* are based on the following:

Standards for Licensing of Instructors
Mississippi code of 1972: Section 73-7-15. Retrieved from **<http://www.sos.state.ms.us/ed_pubs/mscode/>**

National Skills Standards for Cosmetology
The national skills standards for cosmetology come from Milady Standard Textbook of Cosmetology.

Common Core State Standards Initiative
The Common Core State Standards provide a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them. The standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers. With American students fully prepared for the future, our communities will be best positioned to compete successfully in the global economy. Copyright 2010. National Governors Association Center for Best Practices and Council of Chief State School Officers. All rights reserved. States and territories of the United States as well as the District of Columbia that have adopted the Common Core State Standards in whole are exempt from this provision, and no attribution to the National Governors Association Center for Best Practices and Council of Chief State School Officers is required. Reprinted from http://www.corestandards.org/.

National Educational Technology Standards for Students
From: *National Educational Technology Standards for Students: Connecting Curriculum and Technology*, Copyright 2007, International Society for Technology in Education (ISTE), 800.336.5191 (U.S. and Canada) or 541.302.3777 (International), iste@iste.org, www.iste.org. All rights reserved. Permission does not constitute an endorsement by ISTE.

21st Century Skills and Information and Communication Technologies Literacy Standards
In defining 21st century learning, the Partnership for 21st Century Skills has embraced five content and skill areas that represent the essential knowledge for the 21st century: global awareness; civic engagement; financial, economic, and business literacy; learning skills that encompass problem-solving, critical-thinking, and self-directional skills; and information and communication technology (ICT) literacy.

Preface

Secondary career and technical education programs in Mississippi face many challenges resulting from sweeping educational reforms at the national and state levels. Schools and teachers are increasingly being held accountable for providing true learning activities to every student in the classroom. This accountability is measured through increased requirements for mastery and attainment of competency as documented through both formative and summative assessments.

The courses in this document reflect the statutory requirements as found in Section 37-3-49, *Mississippi Code of 1972*, as amended (Section 37-3-46). In addition, this curriculum reflects guidelines imposed by federal and state mandates (Laws, 1988, Ch. 487, §14; Laws, 1991, Ch. 423, §1; Laws, 1992, Ch. 519, §4 eff. from and after July 1, 1992; Carl D. Perkins Vocational Education Act IV, 2007; and No Child Left Behind Act of 2001).

Mississippi Teacher Professional Resources

The following are resources for Mississippi teachers.

Curriculum, Assessment, Professional Learning, and other program resources can be found at The Research and Curriculum Unit's website: http://www.rcu.msstate.edu

Learning Management System: An online resource

Learning Management System information can be found at the RCU's website, under Professional Learning.

Should you need additional instructions, please call 662.325.2510.

My PLC: An online registration for all professional-development sessions

To register for any session, teachers will need an account in the registration system, MyPLC, https://myplc.rcu.msstate.edu. To create an account, click on the link and navigate to the "Request a Guest ID" link. The ID should be the teacher's first initial and last name and the last four (4) digits of the social security number. Teachers should complete the entire form, which will then be sent to a secure server. Upon activation of the teacher's account, he or she will receive an e-mail with login instructions. The teacher may then browse for the available sessions and register for the desired courses.

Should you need additional instructions, please call 662.325.2510.

Executive Summary

Pathway Description

The Cosmetology career pathway focuses on the aspects of the field of cosmetology. Students will learn the importance of safety, infection control, and decontamination in a salon setting. They will learn the theory and principles of nails, hair design, and makeup as well as business aspects associated with cosmetology professions.

Industry Certification

This instructional program prepares individuals to care for hair, nails, and skin with emphasis on hygiene, sanitation, customer relations, and salon management.

Assessment

The latest assessment blueprint for the curriculum can be found at http://www.rcu.msstate.edu/Curriculum/CurriculumDownload.aspx

Student Prerequisites

In order for students to be able to experience success in the Cosmetology program, the following student prerequisites are suggested:

1. C or higher in English (the previous year)
2. C or higher in Math (last course taken or the instructor can specify the math)
3. C or higher in specified science course approved by the instructor

or

4. Instructor Approval

Applied Academic Credit

No applied academic credit proposed at this time.

Teacher Licensure

The latest teacher licensure information can be found at http://www.mde.k12.ms.us/educator-licensure.

Professional Learning

If you have specific questions about the content of any training session provided, please contact the Research and Curriculum Unit at 662.325.2510, and ask for a professional learning specialist.

Cosmetology Outline – General Explanation

This document follows guidelines from the Mississippi State Board of Cosmetology regarding course training hourly requirements for board certification. The following options are suggestions for implementing this curriculum to meet the Mississippi State Board of Cosmetology standards:

Option 1: This four-course program includes Cosmetology: Introduction to Cosmetology, Cosmetology: Basic Cosmetology, Cosmetology: Advanced Cosmetology, and Cosmetology: Applications of Cosmetology. This program includes a pre-summer session, and a mid-summer session and two school-year sessions that are presented during three-hour blocks of time during the school day, for a combined total of 1,500 hours of training time.

Option 2: This four-course program also includes Cosmetology I, Cosmetology II, Cosmetology III, and Cosmetology IV. This program includes a pre-summer session, and a mid-summer session and two school-year sessions that are presented during regular block scheduling of a school year. More instructional time is offered during summer sessions.

For both of these options, after a total of 1,500 hours, the student is eligible to take the Mississippi State Board of Cosmetology Examination. Individual cosmetology programs are responsible for scheduling options for these courses. It is suggested that the student work with the school cosmetology program instructor and/or the CTE director for further details.

Course Outlines

Option 1

This curriculum should be completed in the following sequence:

1. **Cosmetology: Introduction to Cosmetology – Course Code: 994700**
2. **Cosmetology: Basic Cosmetology – Course Code: 994701**
3. **Cosmetology: Advanced Cosmetology – Course Code: 994702**
4. **Cosmetology: Applications of Cosmetology – Course Code: 994703**

Course Description: Cosmetology: Introduction to Cosmetology

This course introduces students to the field of cosmetology and identifies some of the current and future trends affecting the cosmetology industry and the impact that this trade has on society and the global economy. Students will explore safety, infection control, and decontamination issues associated with cosmetology. It is recommended that this course be taught during the summer before the first year.

Course Description: Cosmetology: Basic Cosmetology

This course identifies more areas of the cosmetology field including nails, nail disorders, manicures, and pedicures. Students will be introduced to the properties of the hair and scalp, haircutting, draping, shampooing, and rinsing. Students will gain an understanding of hair coloring, thermal styling, permanent waving, and chemical relaxing. It is recommended that this course be taught during the school year for a three-hour block of time daily.

Course Description: Cosmetology: Advanced Cosmetology

This course provides an in-depth review of the requirements for licensing from the Mississippi State Board of Cosmetology that are taught in the first two courses. This course also includes a detailed look at the histology of the skin. It is recommended that this course be taught during the summer before the second year.

Course Description: Cosmetology: Applications of Cosmetology

This course provides an overview of the techniques used in cosmetology including anatomy and physiology of cosmetology, and basic chemistry and electricity. Students will learn about the principles of hair design, braids and extensions, wigs, and hair enhancements. Students will gain understanding in hairstyling, hair removal, facials and facial massage, makeup, and advanced nail techniques. Students in this course will also be exposed to issues in the business of cosmetology including employment and licensing. It is recommended that this course be taught during the school year for a three-hour block of time daily.

Cosmetology: Introduction to Cosmetology — Course Code: 994700

Unit	Unit Name	Hours
1	Orientation, Communication, Leadership Overview, and Professional Image	70
2	Safety, Infection Control, and Decontamination	80
Total		150

Cosmetology: Basic Cosmetology — Course Code: 994701

Unit	Unit Name	Hours
3	Nails, Nail Disorders, Manicures, and Pedicures	70
4	Introduction to Properties of the Hair and Scalp	30
5	Advanced Properties of the Hair and Scalp	30
6	Draping, Shampooing, and Rinsing	100
7	Haircutting	110
8	Hair Coloring	80
9	Thermal Styling, Permanent Waving, and Chemical Relaxing	140
Total		560

Cosmetology: Advanced Cosmetology — Course Code: 994702

Unit	Unit Name	Hours
10	Review and Preparation for the State Board Exam	105
11	Histology of the Skin	40
Total		145

Cosmetology: Applications of Cosmetology — Course Code: 994703

Unit	Unit Name	Hours
12	Anatomy and Physiology	60
13	Basic Chemistry/Electricity	30
14	Introduction to Principles of Hair Design, Braids and Extensions, Wigs, and Hair Enhancement	15
15	Advanced Principles of Hair Design, Braids and Extensions, Wigs, and Hair Enhancement	60
16	Hairstyling	170
17	Hair Removal	30
18	Facials and Facial Massage	40
19	Facial Makeup	30
20	Advanced Nail Techniques	40
21	The Salon Business, Employment, and Licensing	50
Total		525

Additional hours for hair shows, conferences, community service and competitions 120

Option 2

This curriculum should be completed in the following sequence:

1. **Cosmetology I – Course Code: 994704**
2. **Cosmetology II – Course Code: 994705**
3. **Cosmetology III – Course Code: 994706**
4. **Cosmetology IV – Course Code: 994707**

Course Description: Cosmetology I

This course introduces students to the field of cosmetology and identifies some of the current and future trends affecting the cosmetology industry and the impact that this trade has on society and the global economy. Students will explore safety, infection control, and decontamination issues associated with cosmetology along with nails, nail disorders, manicures, and pedicures. This course also covers the properties of the hair and scalp. It is recommended that this course be taught during the summer before the first year.

Course Description: Cosmetology II

This course identifies some additional areas of the cosmetology field including haircutting, draping, shampooing and rinsing. Students will gain an understanding of hair coloring, thermal styling, permanent waving, and chemical relaxing. It is recommended that this course be taught during the school year during a 90-minute block.

Course Description: Cosmetology III

This course provides an in-depth review of the requirements for licensing from the Mississippi State Board of Cosmetology that are taught in the first two courses. Students in this course will also gain knowledge in the histology of the skin, anatomy and physiology of cosmetology, and basic chemistry and electricity. Students will learn about the principles of hair design, braids and extensions, wigs, and other hair enhancements. It is recommended that this course be taught during the summer before the second year.

Course Description: Cosmetology IV

This course provides an overview of the techniques used cosmetology including hairstyling, hair removal, facials and facial massage, makeup, and advanced nail techniques. Students in this course will also be exposed to issues in the business of cosmetology including employment and licensing. It is recommended that this course be taught during the school year for a 90-minute block.

Cosmetology I — Course Code: 994704

Unit	Unit Name	Hours
1	Orientation, Communication, Leadership Overview, and Professional Image	70
2	Safety, Infection Control, and Decontamination	80
3	Nails, Nail Disorders, Manicures, and Pedicures	70
4	Introduction to Properties of the Hair and Scalp	30
Total		250

Cosmetology II — Course Code: 994705

Unit	Unit Name	Hours
5	Advanced Properties of the Hair and Scalp	30
6	Draping, Shampooing, and Rinsing	100
7	Haircutting	110
8	Hair Coloring	80
9	Thermal Styling, Permanent Waving, and Chemical Relaxing	140
Total		460

Cosmetology III — Course Code: 994706

Unit	Unit Name	Hours
10	Review and Preparation for the State Board Exam	105
11	Histology of the Skin	40
12	Anatomy and Physiology	60
13	Basic Chemistry/Electricity	30
14	Introduction to Principles of Hair Design, Braids and Extensions, Wigs, and Hair Enhancement	15
Total		250

Cosmetology IV — Course Code: 994707

Unit	Unit Name	Hours
15	Advanced Principles of Hair Design, Braids and Extensions, Wigs, and Hair Enhancement	60
16	Hairstyling	170
17	Hair Removal	30
18	Facials and Facial Massage	40
19	Facial Makeup	30
20	Advanced Nail Techniques	40
21	The Salon Business, Employment, and Licensing	50
Total		420

Additional hours for hair shows, conferences, community service and competitions 120

Research Synopsis

Introduction

This program is designed to provide classroom theory and practical application in tasks related to Cosmetology. It prepares students for a variety of occupations in cosmetology including hairstylist, makeup artist, massage therapist, cosmetology teacher, barber, esthetician electrologist, nail technician, hair color technician, or others. Course content provides coherent and rigorous alignment with challenging academic standards and relevant technical knowledge needed to prepare for further education and careers in various fields related to cosmetology (see the following tables).

Needs of the Future Workforce

The Cosmetology industry is projected to grow by 13% in Mississippi and nationwide by 2020 (SWIB, 2014). Students in this program will be prepared for multiple in-demand and competitive job opportunities. Data for this synopsis was compiled from employment projections prepared by the United States census Bureau, the U.S. Bureau of Labor Statistics (SWIB, 2014), and the Mississippi Department of Employment Security (US Bureau of Labor Statistics, 2014).

Cosmetologists	**Employment 2012**	**Projected employment 2022**	**Change 2012–2022**		**Mean annual wage (in dollars)**
			Number	Percent	
Mississippi Total	1,210	1,367	157	13%	$13.43
National Total	611,200	690,656	79,456	13%	$13.24

See State Workforce Investment Board for details:

Description	Jobs, 2012	Projected Jobs, 2022	Change (Number)	Change (Percent)	Median Hourly Earning
Barbers, Hairstylists, and Cosmetologists	663,300	746,600	83,300	13%	10.39
Manicurist/Pedicurist	86,900	100,400	13,500	16	9.24
Skincare Specialist	44,400	62,100	17,700	40	13.77

http://swib.ms.gov/DataCenter/PublicReports/OccupationAnalysis/OccupationReportByIndustry.aspx

http://www.bls.gov/ooh/personal-care-and-service/barbers-hairdressers-and-cosmetologists.htm

Perkins IV Requirements

The Cosmetology curriculum meets Perkins IV requirements of high-skill, high-wage, and/or high-demand occupations by introducing students to and preparing students for occupations. It also offers students a program of study including secondary, postsecondary, and IHL courses that will prepare them for occupations in these fields. Additionally, the Cosmetology curriculum is integrated with academic common core standards. Lastly, the Cosmetology curriculum focuses on ongoing and meaningful professional development for teachers as well as relationships with industry.

Curriculum Content

Summary of Standards

The standards to be included in the Cosmetology curriculum are the standards from Milady's Standard Cosmetology, 21st Century Skills, the Common Core Standards for Mathematics and Science, and the National Educational Technology Standards (NETS) for Students. Combining these standards to create this document will result in highly skilled, well-rounded students who are prepared to enter a secondary academic or career and technical program of study. They will also be prepared to academically compete nationally as the Common Core Standards are designed to prepare students for success in community colleges, Institutions of Higher Learning and careers.

Academic Infusion

While using the Cosmetology curriculum, students will encounter history through learning about the cosmetology field, and also math and business when learning about running a cosmetology business. In addition, this curriculum prepares students for the workforce by incorporating the 21st Century Literacy Skills.

Transition to Postsecondary Education

The latest articulation information for Secondary to Postsecondary can be found at the Mississippi Community College Board (MCCB) website http://www.mccb.edu/

Best Practices

Innovative Instructional Technologies

Recognizing that today's students are digital learners, the classroom should be equipped with tools that will teach them in the way they need to learn. The Cosmetology teacher's goal should be to include teaching strategies that incorporate current technology. It is suggested that each classroom

house a classroom set of desktop student computers and one teacher laptop. To make use of the latest online communication tools such as wikis, blogs, and podcasts, the classroom teacher is encouraged to use a learning management system, for example, the Cosmetology Teacher LMS Content Management System, that introduces students to education in an online environment and places the responsibility of learning on the student.

Differentiated Instruction

Students learn in a variety of ways. Some are visual learners, needing only to read information and study it to succeed. Others are auditory learners, thriving best when information is read aloud to them. Still others are tactile learners, needing to participate actively in their learning experiences. Add the student's background, emotional health, and circumstances, and a very unique learner emerges. By providing various teaching and assessment strategies, students with various learning styles can succeed.

Career and Technical Education Student Organizations

Teachers should investigate opportunities to sponsor a student organization. There are several here in Mississippi that will foster the types of learning expected from the cosmetology curriculum. SkillsUSA is an organization that provides students with growth opportunities and competitive events. It also opens the doors to the world of cosmetology and scholarships opportunities.

Cooperative Learning

Cooperative learning can help students understand topics when independent learning cannot. Therefore, you will see several opportunities in the cosmetology curriculum for group work. To function in today's workforce, students need to be able to work collaboratively with others and solve problems without excessive confliet. The cosmetology curriculum provides opportunities for students to work together and help each other to complete complex tasks.

Conclusions

Cosmetology is one of Mississippi's most comprehensive curriculums. Students that complete these programs are well equipped for a variety of endeavors. Instructors are urged to encourage Cosmetology students to pursue educational opportunities at community colleges and universities in Mississippi.

Professional Organizations

Association for Career and Technical Education
https://www.acteonline.org

Mississippi ACTE http://www.mississippiacte.com/

Aesthetic International Association
310 E. Interstate 30
Suite B107
Garland, TX 75043
877.968.7539
http://www.aestheticsassociation.com

American Association of Cosmetology Schools
9927 E. Bell Rd., Suite 110
Scottsdale, AZ 85260
800.831.1086
http://beautyschools.org

American Board of Certified Haircolorists
PO Box 9090
San Pedro, CA 90734
310.547.0814
http://www.haircolorist.com

The American Hair Loss Council
30 South Main
Shenandoah, PA 17976
http://www.ahlc.org

Associated Hair Professionals
25188 Genesee Trail Road, Suite 200
Golden, CO 80401
800.575.4642
http://www.insuringstyle.com

Associated Skin Care Professionals
25188 Genesee Trail Road, Suite 200
Golden, CO 80401
800.789.0411
http://www.ascpskincare.com/

Association of Cosmetology Salon Professionals (ACSP)
PO Box 207
Chapin, SC 29036
803.345.2f909
http://www.mycosmetology.org

Intercoiffure America/Canada
1507 Belmont Avenue
Seattle, WA 98122
206.550.4309
http://intercoiffure.com

National Coalition of Estheticians, Manufacturers/Distributors and Associations (NCEA)
484 Spring Avenue
Ridgewood, NJ 07450-4624
201.670.4100
http://www.ncea.tv/

MS State Board of Cosmetology
239 North Lamar, Suite 301
Jackson, MS 39201
601.359.1820
http://www.msbc.state.ms.us

Professional Beauty Association
15825 N. 71st Street, #100
Scottsdale, AZ 85254-1521
800.468.2274
http://probeauty.org

Using This Document

Suggested Time on Task

This section indicates an estimated number of clock hours of instruction that should be required to teach the competencies and objectives of the unit. A minimum of 140 hours of instruction is required for each Carnegie unit credit. The curriculum framework should account for approximately 75–80% of the time in the course.

Competencies and Suggested Objectives

A competency represents a general concept or performance that students are expected to master as a requirement for satisfactorily completing a unit. Students will be expected to receive instruction on all competencies. The suggested objectives represent the enabling and supporting knowledge and performances that will indicate mastery of the competency at the course level.

Integrated Academic Topics, 21st Century Skills and Information and Communication Technology Literacy Standards, ACT College Readiness Standards, and Technology Standards for Students

This section identifies related academic topics as required in the Subject Area Testing Program (SATP) in Algebra I, Biology I, English II, and U.S. History from 1877, which are integrated into the content of the unit. Research-based teaching strategies also incorporate ACT College Readiness standards. This section also identifies the 21st Century Skills and Information and Communication Technology Literacy skills. In addition, national technology standards for students associated with the competencies and suggested objectives for the unit are also identified.

References

A list of suggested references is provided in Appendix A. The list includes some of the primary instructional resources that may be used to teach the competencies and suggested objectives. Again, these resources are suggested, and the list may be modified or enhanced based on needs and abilities of students and on available resources.

Unit 1: Orientation, Communication, Leadership, and Professional Image

Competencies and Suggested Objectives
1. Describe the history of the cosmetology industry. DOK1, NSSC2, NSSC7 a. Name some of the pioneers of modern cosmetology and discuss their roles in its development. b. Describe the advancements made in cosmetology during the nineteenth and twentieth centuries.
2. Describe the career opportunities available to a licensed cosmetologist. DOK1, NSSC1, NSSC3 a. List the principles that contribute to personal and professional success. b. Explain the concept of self-management. c. Create a personal mission statement. d. Explain how to set long- and short-term goals. e. Discuss the most effective ways to manage time.
3. Discuss communicating for success within the cosmetology industry. DOK1, NSSC2, NSSC3, NSSC4, NSSC5, NSSC6, NSSC13 a. Explain the basic processes of effective communication. b. Describe how effectively communicating with coworkers as part of a team is beneficial. c. Build open lines of communication with coworkers and salon managers d. Discuss the necessary steps to develop and retain clients. e. Discuss how to consult with clients to determine their needs and preferences. f. Assess a client's needs based on the "total look" concept. g. Conduct a successful client consultation. h. Handle delicate communication with clients.
4. Develop advanced leadership and organizational skills. DOK2, NSSC3 a. Identify SkillsUSA leadership and skills competition activities. b. Identify similarities between SkillsUSA leadership skills and workplace leadership skills
5. Identify basic traits for cosmetologists. DOK1, NSSC4, NSSC7, NSSC8 a. Identify the color key on the basis of skin tone, eye color, and natural hair color. b. Identify importance of hygiene and good grooming. c. Demonstrate and explain visual poise. d. Identify characteristics necessary for personality development

Note: Licensing preparation will be an ongoing process throughout the year.

Unit 2: Safety, Infection Control, and Decontamination

Competencies and Suggested Objectives
1. Describe personal safety rules for working in cosmetology. DOK1, NSSC2, NSSC4 a. Identify and apply terms and definitions for safety. b. Identify OSHA inspections and citations. c. Identify accidents including causes and prevention. d. Identify general safety procedures. e. Identify causes of electrical hazards. f. Identify proper methods for moving heavy items. g. Identify and apply emergency first-aid, if necessary. h. Identify sanitation and sterilization regulations.
2. Explain the performance of services in a safe environment, and take measures to prevent the spread of infectious and contagious diseases. DOK2, NSSC4, NSSC5, NSSC7 a. Describe the types and classifications of bacteria. b. Define hepatitis and AIDS, and explain how they are transmitted. c. Describe vegetable and animal parasites that may be seen in the salon. d. Describe the different types of disinfectants and how they are used. e. Describe how to safely sanitize and disinfect various salon tools and surfaces. f. Explain the differences between sterilization, disinfection, and sanitation. g. Describe universal precautions and the related responsibilities of a salon professional.
3. Identify and describe bacteria as they relate to cosmetology. DOK1, NSSC4 a. List the reasons for studying bacteriology. b. Identify the types of bacteria. c. Describe how bacteria grow and reproduce. d. Identify the terms associated with bacteriology.
4. Identify and describe the processes of sterilization and sanitation. DOK1, NSSC4 a. Identify the relationship of bacteria to the spread of disease. b. Identify and state the various methods of sanitation and sterilization. c. Identify the difference between sanitation and sterilization. d. List precautions to prevent the spread of disease.
5. Identify chemistry terms and safety related to decontamination and infection control. DOK1, NSSC4 a. Identify terms related to decontamination and infection control. b. Identify safety precautions associated with decontamination and infection control. c. Identify the types of chemistry related to decontamination and infection control and the nature and types of matter.

Unit 3: Nails, Nail Disorders, Manicures, and Pedicures

Competencies and Suggested Objectives
1. Explain nail services for a safe environment and taking measures to prevent the spread of infectious and contagious diseases. DOK2, NSSC4, NSSC7 a. Describe the structure and composition of nails. b. Discuss how nails grow. c. List and describe the various disorders and irregularities of nails. d. Recognize diseases of the nails that should not be treated in the salon.
2. Identify nails and disorders. DOK1,NSSC7 a. Identify structure and composition of nails. b. Distinguish among diseases, disorders, and irregularities of nails. c. Identify terms related to nails and disorders of nails. d. Identify safety, sanitation, and sterilization precautions of nails and nail disorders.
3. Identify chemistry terms and safety related to manicuring. DOK1, NSSC8 a. Identify terms related to manicuring. b. Identify safety precautions of manicuring. c. Identify the types of chemistry related to manicuring and the nature and types of matter.
4. Identify procedures for giving a manicure. DOK1, NSSC4 a. Identify the qualifications of manicuring. b. Identify terms related to manicuring. c. Identify safety, sanitation, and sterilization precautions of manicuring.
5. Demonstrate how a manicure and pedicure is given to a client. DOK2, NSSC2, NSSC4, NSSC5, NSSC6, NSSC8, NSSC11, NSSC13, NSSC19 a. Set up equipment and arrange implements and supplies. b. Provide a client with a manicure. c. Provide a client with special manicure services. d. Perform the application and removal of artificial and sculptured nails. e. Perform the techniques in the application of artificial nails. f. Perform the techniques in the application of pedicure services.

Unit 4: Introduction to Properties of the Hair and Scalp

Competencies and Suggested Objectives
1. Explain and describe both the physical and microscopic properties of the hair and scalp including professional hair treatments. DOK1, NSSC7 a. Name and describe the structures of the hair root. b. List and describe the three layers of the hair shaft. c. Describe the three types of side bonds in the cortex. d. List the factors that should be considered in a hair analysis. e. Describe the process of hair growth. f. Discuss the different types of hair loss and their causes. g. Describe the various options for hair-loss treatment. h. Recognize hair and scalp disorders commonly seen in the salon and school, and know which can be treated. i. Introduce safety precautions.
2. Identify the characteristics of hair. DOK1, NSSC4, NSSC7, NSSC8 a. Identify the composition and divisions of hair. b. Identify the different structures of the hair root and follicle. c. List precautions to prevent the spread of disease.

Unit 5: Advanced Properties of the Hair and Scalp

Competencies and Suggested Objectives
1. Identify problems with hair. DOK1, NSSC4, NSSC7 a. Identify various disorders and diseases of the hair and scalp. b. Identify terms related to hair and disorder of hair. c. Identify safety precautions associated with hair and disorders of hair
2. Explain the chemistry of shampoos, rinses, and conditioners, consulting with clients to determine their needs and preferences. DOK1, NSSC4, NSSC5, NSSC7, NSSC8, NSSC13 a. Explain pH and its importance 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. Describe general hair and scalp treatments. g. Introduce safety precautions.

Unit 6: Draping, Shampooing, and Rinsing

Competencies and Suggested Objectives
1. Prepare a client for a shampoo. DOK1, NSSC5, NSSC7, NSSC8 a. Explain the purpose of draping. b. Demonstrate the ability to drape a client. c. Explain the necessity for good hygienic care of the hair and scalp. d. Identify and apply safety and sanitation precautions.
2. Identify chemistry terms and safety related to shampooing and rinsing. DOK1, NSSC4 a. Identify terms related to shampooing and rinsing. b. Identify safety precautions of shampooing and rinsing. c. Identify the types of chemistry related to shampooing and rinsing and the nature and types of matter.
3. Select and identify shampooing and rinsing procedures. DOK1, NSSC4, NSSC8, NSSC10, NSSC13 a. Identify the various methods of shampooing. b. Identify terms related to shampooing, draping, and rinsing. c. Select the correct shampoo for problem conditions. d. Identify the purposes for and effects of rinsing. e. Apply procedures for shampooing and rinsing a client.

~~Unit 7: Haircutting~~

~~Competencies and Suggested Objectives~~
~~1. Identify terms and safety in hair shaping.~~ ~~DOK1, NSSC4, NSSC8~~ ~~a. Identify terms related to hair shaping.~~ ~~b. Identify safety, sanitation, and sterilization precautions of hair shaping.~~
~~2. Identify the reference points and areas of the head.~~ ~~DOK1~~
~~3. Perform hair shaping.~~ ~~DOK2, NSSC10, NSSC16~~ ~~a. Select the correct instruments for hair textures and form.~~ ~~b. Hold and manipulate the implements correctly.~~ ~~c. Shape hair properly~~

Unit 8: Hair Coloring

Competencies and Suggested Objectives
1. Identify the chemistry terms and safety related to hair coloring and hair lightening. DOK1, NSSC4, NSSC7 a. Identify terms related to hair coloring and hair lightening. b. Identify safety precautions of hair coloring and hair lightening. c. Identify the types of chemistry as related to hair coloring and hair lightening and the nature and types of matter.
2. Identify the procedures for hair coloring and hair lightening. DOK1, NSSC4, NSSC7 a. Identify terms related to hair coloring and hair lightening. b. Identify safety, sanitation, and sterilization precautions of hair coloring and hair lightening. c. Identify the actions of hair coloring on hair.
3. Perform a hair coloring and hair lightening. DOK2, NSSC7, NSSC8, NSSC10, NSSC13, NSSC18 a. Select the products for hair coloring. b. Select the best method for hair coloring. c. Provide a client with hair coloring and hair lightening.

Unit 9: Thermal Styling, Permanent Waving, and Chemical Relaxing

Competencies and Suggested Objectives
1. Identify the procedures for thermal hair styling. DOK1, NSSC4 a. Identify terms related to thermal hair styling. b. Identify safety, sanitation, and sterilization precautions of thermal hair styling. c. Identify the conditions of the hair and scalp. d. State the purposes of hair pressing.
2. Perform a thermal hairstyle. DOK2, NSSC7, NSSC8, NSSC10, NSSC13, NSSC14, NSSC17 a. Select the products and best procedures for pressing. b. Select the best method and implements for a thermal hairstyle. c. Manipulate the implements correctly. d. Provide a client with a basic thermal hairstyle.
3. Identify chemistry terms and safety related to permanent waving. DOK1, NSSC4 a. Identify terms related to permanent waving. b. Identify safety precautions of permanent waving. c. Identify the types of chemistry related to permanent waving and the nature and types of matter.
4. Identify the procedures for permanent waving. DOK1, NSSC4 a. Identify terms related to permanent waving. b. Identify safety, sanitation, and sterilization precautions of permanent waving. c. Identify permanent waving and the importance of hair and scalp analysis. d. Identify chemical products and their uses in permanent waving. e. Identify special needs for problem hair. f. Identify the difference between hot and cold perming.
5. Perform a permanent wave. DOK2, NSSC7, NSSC8, NSSC10, NSSC13, NSSC14, NSSC17 a. Select the products and best procedure for permanent waving. b. Select the best method for permanent waving. c. Provide a client with a basic permanent wave.
6. Identify chemistry terms and safety related to chemical relaxing. DOK1, NSSC4 a. Identify terms related to chemical relaxing. b. Identify safety precautions of chemical relaxing. c. Identify the types of chemistry and the nature and types of matter.
7. Identify procedures for chemical relaxing. DOK1, NSSC4 a. Identify terms related to chemical relaxing. b. Identify safety, sanitation, and sterilization precautions of chemical relaxing. c. Identify the actions of the chemical products to be used on the hair.
8. Perform a chemical relaxing procedure. DOK2, NSSC7, NSSC8, NSSC10, NSSC13, NSSC14, NSSC17 a. Select the products for chemical relaxing. b. Select the best method for chemical relaxing. c. Provide a client with a basic chemical relaxing.

Unit 10: Review and Preparation for the State Board Exam

Competencies and Suggested Objectives
1. Participate in lifelong learning in order to stay current with trends, technology, and techniques pertaining to the cosmetology industry. DOK1, NSSC1, , NSSC2 a. Describe the origins of the cosmetology industry. b. Name some of the pioneers of modern cosmetology and discuss their roles in its development. c. Describe the advancements made in cosmetology during the nineteenth and twentieth centuries. d. List the career opportunities available to a licensed cosmetologist. e. Consult with clients to determine their needs and preferences. f. List the principles that contribute to personal and professional success. g. Explain the concept of self-management. h. Interact effectively with coworkers as part of a team. i. Create a personal mission statement. j. Explain how to set long- and short-term goals. k. Discuss the most effective ways to manage time. l. Describe good study habits.
2. Use appropriate methods to ensure personal health and well-being. DOK2, NSSC4 a. Define ethics. b. List the characteristics of a healthy, positive attitude. c. Explain the concept of wellness as it relates to image. d. List the basic habits of daily personal hygiene. e. Explain the concept of dressing for success. f. Describe methods for reducing stress. g. Identify the basic principles of sound nutrition and exercise. h. Demonstrate ways to improve posture, both standing and sitting. i. Demonstrate an understanding of ergonomic principles and ergonomically correct postures and movement.
3. Take the necessary steps to develop and retain clients. DOK1, NSSC5, NSSC6 a. Explain the basic processes of effective communication. b. Assess a client's needs based on the "total look" concept. c. Conduct a successful client consultation. d. Handle delicate communication with clients. e. Build open lines of communication with coworkers and salon managers.
4. Develop advanced leadership and organizational skills. DOK1, NSSC2, NSSC3 a. Identify SkillsUSA leadership and skills competition activities. b. Identify similarities between SkillsUSA leadership skills and workplace leadership skills.
5. Describe personal safety rules for working in cosmetology. DOK1, NSSC7, NSSC8 a. Identify and apply terms and definitions for safety. b. Identify OSHA inspections and citations.

c. Identify accidents including causes and prevention.
d. Identify general safety procedures.
e. Identify causes of electrical hazards.
f. Identify proper methods for moving heavy items.
g. Identify and apply emergency first aid, if necessary.
h. Identify sanitation and sterilization regulations.

Unit 11: Histology of the Skin

Competencies and Suggested Objectives
1. Explain basic skin characteristics. DOK1, NSSC9 a. Describe the structure and composition of the skin. b. List the functions of the skin. c. Describe the aging process and the factors that influence aging of the skin. d. Define important terms relating to the skin. e. Discuss which skin disorders may be handled in the salon and which should be referred to a physician. f. Identify safety precautions.
2. Identify terms and safety related to skin and its disorders. DOK1, NSSC4, NSSC8, NSSC9 a. Identify terms related to skin and its disorders. b. Identify safety, sanitation, and sterilization precautions of skin and its disorders.
3. Identify characteristics of the skin and its disorders. DOK1, NSSC9 a. Identify structures of and compositions of the skin. b. List characteristics of skin and its functions. c. Identify disorders of the skin and adjacent glands. d. Distinguish between disorders treated by cosmetologists and those treated by physicians.

Unit 12: Anatomy and Physiology

Competencies and Suggested Objectives
1. Demonstrate services in a safe environment, and take measures to prevent the spread of infectious and contagious diseases. DOK2, NSSC4, NSSC7, NSSC8 a. Describe the types and classifications of bacteria. b. Research hepatitis and AIDS and explain how they are transmitted. c. Describe vegetable and animal parasites that may be seen in the salon. d. Describe the different types of disinfectants and how they are used. e. Describe how to safely sanitize and disinfect various salon tools and surfaces. f. Explain the differences between sterilization, disinfection, and sanitation. g. Describe universal precautions and your responsibilities as a salon professional.
2. Explain the importance of anatomy and physiology to the cosmetology profession. DOK1, NSSC1 a. Describe cells, their structure, and their reproduction. b. Define tissue and identify the types of tissues found in the body. c. List the 10 main body systems and explain their basic functions. 1. Skeletal System 2. Muscular System 3. Nervous System 4. Circulatory System 5. Endocrine System 6. Digestive System 7. Excretory System 8. Respiratory System 9. Integumentary System 10. Reproduction System
3. Identify and apply chemistry principles to cosmetology services. DOK1, NSSC1, NSSC8 a. Explain the difference between organic and inorganic chemistry as related to cosmetology. b. Discuss the different forms of matter: elements, compounds, and mixtures. c. Explain pH and the pH scale. d. Describe oxidation and reduction (redox) reactions. e. Explain terms related to cosmetology chemistry.

Unit 13: Basic Chemistry/Electricity

Competencies and Suggested Objectives
1. Identify the importance of electricity and light therapy in cosmetology. DOK1, NSSC8 a. Define terms associated with electricity and light therapy as used in cosmetology. b. Identify the importance of the use of electricity and light therapy as used in cosmetology. c. Identify the different types of currents and light rays and describe the benefits of each.
2. Describe personal safety rules as related to electricity and light therapy. DOK1, NSSC7, NSSC8 a. Identify general safety procedures. b. Identify causes of electrical hazards.
3. Identify and apply electrical principles to cosmetology services. DOK1, NSSC8 a. Discuss the nature of electricity and the two types of electric current. b. Define the four types of electrotherapy and their uses. c. Explain electromagnetic radiation and the visible spectrum of light. d. List the five types of light therapy and their benefits. e. Explain the safety precautions related to electricity use in cosmetology services.
4. Identify the importance of electricity and light therapy in cosmetology. DOK1, NSSC8 a. Describe personal safety rules as related to electricity and light therapy. b. Review the school's policy on general safety procedures. c. Describe hazards of electrical shock including effects of current, shock avoidance techniques, and shock treatment procedures.

Unit 14: Introduction to Principles of Hair Design, Braids and Extensions, Wigs, and Hair Enhancements

Competencies and Suggested Objectives
1. Review the physical and microscopic properties of the hair and scalp including professional hair treatments. DOK1, NSSC4, NSSC7, NSSC10, NSSC16 a. Name and describe the structures of the hair root. b. List and describe the three layers of the hair shaft. c. Describe the three types of side bonds in the cortex. d. List the factors that should be considered in a hair analysis. e. Describe the process of hair growth. f. Discuss the different types of hair loss and their causes. g. Describe the various options for hair loss treatment. h. Recognize hair and scalp disorders commonly seen in the salon and at school, and know which can be treated. i. Explain and demonstrate safety precautions.

Unit 15: Advanced Principles of Hair Design, Braids and Extensions, Wigs, and Hair Enhancements

Competencies and Suggested Objectives
1. Select, adapt, and execute a hairstyle that is both suitable and desirable to the client. DOK1, NSSC4, NSSC8, NSSC10, NSSC14, NSSC16 a. List the five elements of hair design. b. List the five principles of hair design. c. Identify different facial shapes. d. Demonstrate how to design hairstyles to enhance or camouflage facial features. e. Explain design considerations for men. f. Explain and demonstrate safety precautions associated with hairstyling.
2. Identify components of artificial hair. DOK1, NSSC7, NSSC16 a. Identify terms related to artificial hair. b. Identify safety, sanitation, and sterilization precautions of artificial hair.
3. Apply procedures for the service of artificial hair. DOK2, NSSC10, NSSC14, NSSC16 a. Select the correct wig for the client's need. b. Clean and style hair pieces. c. Lengthen hair by adding additional hair by weaving and/or extension braiding.

Unit 16: Hairstyling

Competencies and Suggested Objectives
1. Identify basic procedures for hairstyling. DOK1, NSSC4, NSSC7 a. Identify terms related to hairstyling. b. Identify safety, sanitation, and sterilization precautions of hair styling. c. Identify the implements and supplies necessary for hair styling.
2. Perform hair styling procedures. DOK2, NSSC8, NSSC10, NSSC14, NSSC17 a. Select the hair style that is most suitable for specific facial types and head shapes. b. Comb the hair in preparation for parting. c. Form and use pin curls to create a hair style. d. Use roller curls to create a hair style. e. Comb out a hair style according to steps of a comb out. f. Duplicate a haircut, wet set, and comb out hair style from a diagram, pictures, or description.
3. Identify procedures for finger waving. DOK1, NSSC8, NSSC13 a. Identify terms related to finger waving. b. Identify safety, sanitation, and sterilization precautions of finger waving. c. Identify the purposes of and reasons for finger waving.
4. Perform finger waving. DOK2, NSSC13, NSSC17, NSSC17 a. Select wave lotion best suited for the hair. b. Demonstrate the correct techniques for finger waving.

Unit 17: Hair Removal

Competencies and Suggested Objectives
1. Demonstrate basic skin care services related to hair removal. DOK2, NSSC4, NSSC8, NSSC9
2. Demonstrate hair removal services. DOK2, NSSC8, NSSC9, NSSC20 a. Describe the elements of a client consultation for hair removal. b. Name the conditions that contraindicate hair removal in the salon. c. Identify and describe three methods of permanent hair removal. d. Demonstrate the techniques involved in temporary hair removal. e. Identify safety precautions.

Unit 18: Facials and Facial Massage

Competencies and Suggested Objectives
1. Identify chemistry terms and safety related to facials and massages. DOK1, NSSC4 a. Identify terms related to facials and massages. b. Identify safety precautions of facials and massages. c. Identify types of chemistry related to facials and massages and the nature and types of matter.
2. Identify procedures for facials and massages. DOK1, NSSC4, NSSC7, NSSC13 a. Identify terms related to facials and massages. b. Identify safety, sanitation, and sterilization precautions of facials and massages. c. List psychological effects of facials and massages. d. List materials and equipment needed. e. Identify the purposes of massage. f. List manipulations and their benefits
3. Demonstrate a facial and massage. DOK2, NSSC4, NSSC7 a. Select required products to complete a facial treatment. b. Identify motor nerve points of the face and neck. c. Administer proper massage movement. d. Administer a facial to a client.

Unit 19: Facial Makeup

Competencies and Suggested Objectives
1. Demonstrate applying basic skin care services related to facial makeup. DOK2, NSSC8, NSSC9, NSSC21
2. Demonstrate basic facial care. DOK2, NSSC7, NSSC8, NSSC9, NSSC21 a. List and describe the five main categories of professional skin care products. b. Explain different skin types and skin conditions. c. Identify the various types of massage movements and their physiological effects. d. List and describe the different types of electrical current used in facial treatments and the safety precautions that must be followed when working with them. e. Demonstrate the procedures for a basic facial. f. Identify safety precautions.
3. Provide a consultation and apply appropriate cosmetics to enhance a client's appearance. DOK2, NSSC7, NSSC8, NSSC9, NSSC21 a. Describe the different types of cosmetics and their uses. b. Demonstrate an understanding of cosmetic color theory. c. Demonstrate a basic makeup procedure for any occasion. d. Identify different facial types and demonstrate procedures for basic corrective makeup. e. Demonstrate the application and removal of artificial lashes. f. List safety measures to be followed during makeup application.

Unit 20: Advanced Nail Techniques

Competencies and Suggested Objectives
1. Explain how nail services should be conducted in a safe environment and measures must be taken to prevent the spread of infectious and contagious diseases. DOK1, NSSC4, NSSC7, NSSC8 a. Describe the structure and composition of nails. b. Discuss how nails grow. c. List and describe the various disorders and irregularities of nails. d. Recognize diseases of the nails that should not be treated in the salon.
2. Demonstrate basic manicure and pedicure procedures, explain the measures taken to prevent the spread of infectious and contagious diseases. DOK2, NSSC4, NSSC7, NSSC8, NSSC11, NSSC19 a. List the abilities of a good nail technician. b. Demonstrate the proper use of implements, cosmetics, and materials used in manicuring and pedicuring. c. Identify the five basic nail shapes. d. Demonstrate massage techniques used when giving a manicure and a pedicure. e. Demonstrate a plain manicure. f. Demonstrate a plain pedicure. g. List the sanitary and safety precautions that should be observed when performing a manicure and pedicure.
3. Demonstrate the basic procedures for artificial nail services. DOK2, NSSC4, NSSC7, NSSC8, NSSC11, NSSC13 a. List the preservice and post-service steps of an artificial nail procedure. b. Demonstrate the basic procedures for applying the following: • tips • wraps • acrylic nails • gels c. Explain the chemistry of acrylic nails. d. List the safety precautions that must be followed when applying artificial nails.

Unit 21: The Salon Business, Employment, and Licensing

Competencies and Suggested Objectives
1. Explain the procedures to operate a successful salon. DOK1, NSSC1, NSSC2, NSSC3, NSSC5, NSSC6, NSSC7, NSSC8, NSSC22, NSSC23 a. List the two ways in which you may go into business for yourself. b. List the factors to consider when opening a salon. c. Name and describe the types of ownership under which a salon may operate. d. Explain the importance of keeping accurate business records. e. Discuss the importance of the reception area to a salon's success. f. Demonstrate good salon telephone techniques. g. List the most effective forms of salon advertising. h. Consult with clients to determine their needs and preferences. i. Interact effectively with coworkers as part of a team. j. Manage time to provide efficient client service. k. Take necessary steps to develop and retain clients. l. Market professional salon products. m. Maintain business records on client development, income, and expenses. n. Manage product supply for salon use and retail sales. o. Participate in lifelong learning to stay current with trends, technology, and techniques pertaining to the cosmetology industry.
2. Explain the laws, rules, and regulations regulating cosmetology in Mississippi. DOK1, NSSC1, NSSC2, NSSC3, NSSC4 a. Explain laws, rules, and regulations for the operation of a salon. b. Explain the sanitation regulations concerning the operation of a salon c. Identify fees and examination requirements
3. Explain the steps involved in preparing for employment. DOK1, NSSC1, NSSC2, NSSC3 a. Discuss the essentials of becoming test-wise. b. List and describe the different types of salon businesses. c. Write an achievement-oriented resume and prepare an employment portfolio. d. Explain how to explore the job market and research potential employers. e. Be prepared to complete an effective employment interview.
4. Describe the qualities that help new employees succeed in a cosmetology profession. DOK1, NSSC1, NSSC2, NSSC3, NSSC4, NSSC5, NSSC12, NSSC22, NSSC23 a. List the habits of a good salon team player. b. Explain the function of a job description. c. Describe three different ways in which salon professionals are compensated. d. Create a personal budget. e. List the principles of selling products and services in the salon. f. List the most effective ways to build a client base. g. Interact effectively with coworkers as part of a team. h. Manage time to provide efficient client services. i. Take the necessary steps to develop and retain clients.

j. Market professional salon products.
k. Maintain business records on client development, income, and expenses

Note: Licensing preparation will be an ongoing process throughout the year.

Student Competency Profile

Student's Name: _____

This record is intended to serve as a method of noting student achievement of the competencies in each unit. It can be duplicated for each student, and it can serve as a cumulative record of competencies achieved in the course.

In the blank before each competency, place the date on which the student mastered the competency.

Unit 1: Orientation, Communication, Leadership, and Professional Image		
	1.	Describe the history of the cosmetology industry.
	2.	Describe the career opportunities available to a licensed cosmetologist.
	3.	Discuss communicating for success within the cosmetology industry.
	4.	Develop advanced leadership and organizational skills.
	5.	Identify basic traits for cosmetologists.
Unit 2: Safety, Infection Control, and Decontamination		
	1.	Describe personal safety rules for working in cosmetology.
	2.	Explain the performance of services in a safe environment, and take measures to prevent the spread of infectious and contagious diseases.
	3.	Identify and describe bacteria as it relates to cosmetology.
	4.	Identify and describe the processes of sterilization and sanitation.
	5.	Identify chemistry terms and safety related to decontamination and infection control.
Unit 3: Nails, Nail Disorders, Manicures, and Pedicures		
	1.	Explain nail services for a safe environment and taking measures to prevent the spread of infectious and contagious diseases.
	2.	Identify nails and disorders.
	3.	Identify chemistry terms and safety related to manicuring.
	4.	Identify procedures for giving a manicure.
	5.	Demonstrate how a manicure and pedicure are given to a client.
Unit 4: Introduction to Properties of the Hair and Scalp		
	1.	Explain and describe both the physical and microscopic properties of the hair and scalp including professional hair treatments.
	2.	Identify the characteristics of hair.

~~Unit 5: Advanced Properties of the Hair and Scalp~~		
	~~1.~~	~~Identify problems with hair.~~
	~~2.~~	~~Explain the chemistry of shampoos, rinses, and conditioners, consulting with clients to determine their needs and preferences.~~
~~Unit 6: Draping, Shampooing, and Rinsing~~		
	~~1.~~	~~Prepare a client for a shampoo.~~
	~~2.~~	~~Identify chemistry terms and safety related to shampooing and rinsing.~~
	~~3.~~	~~Select and identify shampooing and rinsing procedures.~~
~~Unit 7: Haircutting~~		
	~~1.~~	~~Identify terms and safety in hair shaping.~~
	~~2.~~	~~Identify the reference points and areas of the head.~~
	~~3.~~	~~Perform hair shaping.~~
~~Unit 8: Hair Coloring~~		
	~~1.~~	~~Identify the chemistry terms and safety related to hair coloring and hair lightening.~~
	~~2.~~	~~Identify the procedures for hair coloring and hair lightening.~~
	~~3.~~	~~Perform a hair coloring and hair lightening.~~
~~Unit 9: Thermal Styling, Permanent Waving, and Chemical Relaxing~~		
	~~1.~~	~~Identify the procedures for thermal hair styling.~~
	~~2.~~	~~Perform a thermal hair style.~~
	~~3.~~	~~Identify chemistry terms and safety related to permanent waving.~~
	~~4.~~	~~Identify the procedures for permanent waving.~~
	~~5.~~	~~Perform a permanent wave.~~
	~~6.~~	~~Identify chemistry terms and safety related to chemical relaxing.~~
	~~7.~~	~~Identify procedures for chemical relaxing.~~
	~~8.~~	~~Perform a chemical relaxing procedure.~~
~~Unit 10: Review and Preparation for the State Board Exam~~		
	~~1.~~	~~Participate in lifelong learning to stay current with trends, technology, and techniques pertaining to the cosmetology industry.~~
	~~2.~~	~~Use appropriate methods to ensure personal health and well-being.~~
	~~3.~~	~~Take the necessary steps to develop and retain clients.~~
	~~4.~~	~~Develop advanced leadership and organizational skills.~~
	~~5.~~	~~Describe personal safety rules for working in cosmetology.~~

~~Unit 11: Histology of the Skin~~		
	~~1.~~	~~Explain basic skin characteristics.~~
	~~2.~~	~~Identify terms and safety related to skin and its disorders.~~
	~~3.~~	~~Identify characteristics of the skin and its disorders.~~
~~Unit 12: Anatomy and Physiology~~		
	~~1.~~	~~Demonstrate services in a safe environment, and take measures to prevent the spread of infectious and contagious diseases.~~
	~~2.~~	~~Explain the importance of anatomy and physiology to the cosmetology profession.~~
	~~3.~~	~~Identify and apply chemistry principles to cosmetology services.~~
~~Unit 13: Basic Chemistry/Electricity~~		
	~~1.~~	~~Identify the importance of electricity and light therapy in cosmetology.~~
	~~2.~~	~~Describe personal safety rules as related to electricity and light therapy.~~
	~~3.~~	~~Identify and apply electricity principles to cosmetology services.~~
	~~4.~~	~~Identify the importance of electricity and light therapy in cosmetology.~~
~~Unit 14: Introduction to Principles of Hair Design, Braids and Extensions, Wigs, and Hair Enhancements~~		
	~~1.~~	~~Review the physical and microscopic properties of the hair and scalp including professional hair treatments.~~
~~Unit 15: Advanced Principles of Hair Design, Braids and Extensions, Wigs, and Hair Enhancements~~		
	~~1.~~	~~Select, adapt, and execute a hairstyle that is both suitable and desirable to the client.~~
	~~2.~~	~~Identify components of artificial hair.~~
	~~3.~~	~~Apply procedures for the service of artificial hair.~~
~~Unit 16: Hairstyling~~		
	~~1.~~	~~Identify basic procedures for hairstyling.~~
	~~2.~~	~~Perform hair styling procedures.~~
	~~3.~~	~~Identify procedures for finger waving.~~
	~~4.~~	~~Perform finger waving.~~
~~Unit 17: Hair Removal~~		
	~~1.~~	~~Demonstrate basic skin care services related to hair removal.~~
	~~2.~~	~~Demonstrate hair removal services.~~

~~Unit 18: Facials and Facial Massage~~		
	~~1.~~	~~Identify chemistry terms and safety related to facials and massages.~~
	~~2.~~	~~Identify procedures for facials and massages.~~
	~~3.~~	~~Demonstrate a facial and massage.~~
~~Unit 19: Facial Makeup~~		
	~~1.~~	~~Demonstrate applying basic skin care services related to facial makeup.~~
	~~2.~~	~~Demonstrate basic facial care.~~
	~~3.~~	~~Provide a consultation and apply appropriate cosmetics to enhance a client's appearance.~~
~~Unit 20: Advanced Nail Techniques~~		
	~~1.~~	~~Explain how nail services should be conducted in a safe environment and measures must be taken to prevent the spread of infectious and contagious diseases.~~
	~~2.~~	~~Demonstrate basic manicure and pedicure procedures, explain the measures taken to prevent the spread of infectious and contagious diseases.~~
	~~3.~~	~~Demonstrate the basic procedures for artificial nail services.~~
~~Unit 21: The Salon Business, Employment, and Licensing~~		
	~~1.~~	~~Explain the procedures to operate a successful salon.~~
	~~2.~~	~~Explain the laws, rules, and regulations regulating cosmetology in Mississippi.~~
	~~3.~~	~~Explain the steps involved in preparing for employment.~~
	~~4.~~	~~Describe the qualities that help new employees succeed in a cosmetology profession.~~

Appendix A: Unit References

Suggested resources are listed below.

Cosmetology basic operator. (1999). Stillwater, OK: Curriculum and Instructional Materials Center.

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Havilin, S. (Ed.). (2002). *Milady's illustrated cosmetology dictionary*. New York: Milady Thomson Learning.

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Local administrative policies and procedures

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Appendix B: Industry Standards

National Skills Standards for Cosmetology and Standards for Licensing of Instructors

National Skills Standards for Cosmetology											
	Course	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10
Insert academic standards here											
NSSC1		X									X
NSSC2		X	X	X							X
NSSC3		X									X
NSSC4		X	X	X	X	X	X	X	X	X	X
NSSC5		X	X	X		X		X			X
NSSC6		X		X							X
NSSC7		X	X	X	X	X		X	X	X	X
NSSC8		X		X	X	X	X	X	X	X	
NSSC9										X	X
NSSC10							X	X	X	X	X
NSSC11				X							X
NSSC12											
NSSC13		X		X		X		X	X	X	X
NSSC14										X	
NSSC15							X				
NSSC16											
NSSC17										X	
NSSC18									X		
NSSC19				X							
NSSC20											
NSSC21											
NSSC22											
NSSC23											

National Skills Standards for Cosmetology											
	Course	Unit 11	Unit 12	Unit 13	Unit 14	Unit 15	Unit 16	Unit 17	Unit 18	Unit 19	Unit 20
NSSC1											
NSSC2											
NSSC3											
NSSC4		X	X	X	X	X	X	X	X	X	X
NSSC5											
NSSC6											
NSSC7			X	X	X	X	X		X	X	X
NSSC8		X	X	X		X	X	X		X	X
NSSC9		X						X	X	X	
NSSC10					X	X	X				
NSSC11											X
NSSC12											
NSSC13							X		X		X
NSSC14						X	X				
NSSC15											
NSSC16					X	X					
NSSC17							X				
NSSC18											

NSSC19											X
NSSC20								X			
NSSC21										X	
NSSC22											
NSSC23											

National Skills Standards for Cosmetology											
		Unit 21									
NSSC1		X									
NSSC2		X									
NSSC3		X									
NSSC4		X									
NSSC5		X									
NSSC6		X									
NSSC7		X									
NSSC8		X									
NSSC9											
NSSC10											
NSSC11											
NSSC12		X									
NSSC13											
NSSC14											
NSSC15											
NSSC16											
NSSC17											
NSSC18											
NSSC19											
NSSC20											
NSSC21											
NSSC22		X									
NSSC23		X									

[1] *Milady's standard cosmetology*. (2004). Clifton Park, NY: Thomson Delmar Learning. (http://www.milady.com)

NSSC1 Participating in lifelong learning to stay current with trends, technology, and techniques pertaining to the cosmetology industry.
NSSC2 Interacting effectively with coworkers as part of a team.
NSSC3 Effectively managing your time in order to provide efficient client services.
NSSC4 Using appropriate methods to ensure personal health and well-being.
NSSC5 Consulting with clients to determine their needs and preferences as they relate to cosmetology services.
NSSC6 Taking the necessary steps to develop and retain clients.
NSSC7 Conducting services in a safe environment and taking measures to prevent the spread of infectious and contagious disease.
NSSC8 Safety using a variety of salon products while providing client services.
NSSC9 Provide basic skin care services.
NSSC10 Provide basic hair care services.
NSSC11 Provide basic nail care services.
NSSC12 Marketing professional salon products.
NSSC13 Using a variety of salon products while providing clients services.
NSSC14 Providing styling and finishing techniques to complete a hairstyle to the satisfaction of the client.
NSSC15 Provide a haircut in accordance with clients' needs or expectations.

~~NSSC16 – Providing nonsurgical hair additions.~~
~~NSSC17 – Performing hair relaxation and wave formations techniques in accordance with manufacturers' directions.~~
~~NSSC18 – Conducting a color service in accordance with clients' needs or expectations.~~
~~NSSC19 – Provide basic manicure and pedicure.~~
~~NSSC20 – Performing hair removal services.~~
~~NSSC21 – Applying appropriate cosmetics to enhance a client's appearance.~~
~~NSSC22 – Maintaining business records on client development, income and expenses.~~
~~NSSC23 – Managing product supply for salon use and retail sales.~~

Appendix C: 21st Century Skills[1]

21st Century Skills Crosswalk for Cosmetology											
	Course	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10
Insert academic standards here											
CS1		X									X
CS2											X
CS3		X									X
CS4		X	X	X	X	X					X
CS5			X	X							X
CS6		X					X		X	X	X
CS7		X						X	X	X	X
CS8		X		X					X	X	X
CS9											
CS10											
CS11											
CS12		X									X
CS13		X									X
CS14		X									X
CS15		X									X
CS16		X									X

21st Century Skills Crosswalk for Cosmetology											
	Course	Unit 11	Unit 12	Unit 13	Unit 14	Unit 15	Unit 16	Unit 17	Unit 18	Unit 19	Unit 20
CS1											
CS2											
CS3											
CS4		X	X								
CS5			X	X							
CS6						X	X			X	X
CS7						X	X			X	X
CS8									X		
CS9											
CS10											
CS11											
CS12											
CS13											
CS14									X		
CS15											
CS16											

21st Century Skills Crosswalk for Cosmetology											
	Course	Unit 21									

[1] *21st century skills.* (n.d.). Washington, DC: Partnership for 21st Century Skills.

CS1		X									
CS2		X									
CS3		X									
CS4		X									
CS5		X									
CS6		X									
CS7		X									
CS8		X									
CS9											
CS10											
CS11											
CS12		X									
CS13		X									
CS14		X									
CS15		X									
CS16		X									

CSS1 21st Century Themes

CS1 Global Awareness

1. Using 21st century skills to understand and address global issues
2. Learning from and working collaboratively with individuals representing diverse cultures, religions, and lifestyles in a spirit of mutual respect and open dialogue in personal, work, and community contexts
3. Understanding other nations and cultures, including the use of non-English languages

CS2 Financial, Economic, Business, and Entrepreneurial Literacy

1. Knowing how to make appropriate personal economic choices
2. Understanding the role of the economy in society
3. Using entrepreneurial skills to enhance workplace productivity and career options

CS3 Civic Literacy

1. Participating effectively in civic life through knowing how to stay informed and understanding governmental processes
2. Exercising the rights and obligations of citizenship at local, state, national, and global levels
3. Understanding the local and global implications of civic decisions

CS4 Health Literacy

1. Obtaining, interpreting, and understanding basic health information and services and using such information and services in ways that enhance health
2. Understanding preventive physical and mental health measures, including proper diet, nutrition, exercise, risk avoidance, and stress reduction
3. Using available information to make appropriate health-related decisions
4. Establishing and monitoring personal and family health goals
5. Understanding national and international public health and safety issues

CS5 Environmental Literacy

1. Demonstrate knowledge and understanding of the environment and the circumstances and conditions affecting it, particularly as relates to air, climate, land, food, energy, water, and ecosystems.
2. Demonstrate knowledge and understanding of society's impact on the natural world (e.g., population growth, population development, resource consumption rate, etc.).
3. Investigate and analyze environmental issues, and make accurate conclusions about effective solutions.
4. Take individual and collective action toward addressing environmental challenges (e.g., participating in global actions, designing solutions that inspire action on environmental issues).

CSS2-Learning and Innovation Skills

CS6 – Creativity and Innovation
1. Think Creatively
2. Work Creatively with Others
3. Implement Innovations

CS7 – Critical Thinking and Problem Solving
1. Reason Effectively
2. Use Systems Thinking
3. Make Judgments and Decisions
4. Solve Problems

CS8 – Communication and Collaboration
1. Communicate Clearly
2. Collaborate with Others

CSS3-Information, Media and Technology Skills

CS9 – Information Literacy
1. Access and Evaluate Information
2. Use and Manage Information

CS10 – Media Literacy
1. Analyze Media
2. Create Media Products

CS11 – ICT Literacy
1. Apply Technology Effectively

CSS4-Life and Career Skills

CS12 – Flexibility and Adaptability
1. Adapt to change
2. Be Flexible

CS13 – Initiative and Self-Direction
1. Manage Goals and Time
2. Work Independently
3. Be Self-directed Learners

CS14 – Social and Cross-Cultural Skills
1. Interact Effectively with others

2. Work Effectively in Diverse Teams

CS15 Productivity and Accountability

1. Manage Projects
2. Produce Results

CS16 Leadership and Responsibility

1. Guide and Lead Others
2. Be Responsible to Others

Appendix D: Common Core Standards

Common Core Crosswalk for English/Language Arts (11-12) for Cosmetology											
	Course	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10
Insert academic standards here											
RL.11.1.											
RL.11.2.											
RL.11.3.											
RL.11.4.			X								X
RL.11.5.											
RL.11.6.											X
RL.11.7.											
RL.11.8.											
RL.11.9.											
RL.11.10											
RI.11.1.											
RI.11.2.											
RI.11.3.											
RI.11.4.											
RI.11.5.											
RI.11.6.											
RI.11.7.											
RI.11.8.											X
RI.11.9.											
RI.11.10.											
W.11.1.											
W.11.2.											
W.11.3.											
W.11.4.											
W.11.5.											
W.11.6.											
W.11.7.											
W.11.8.											
W.11.9.											
W.11.10.											
SL.11.1.											
SL.11.2.											
SL.11.3.											
SL.11.4.											X
SL.11.5.											X
SL.11.6.											
L.11.1.											
L.11.2.											
L.11.3.											
L.11.4.											
L.11.5.											
L.11.6.											
RH.11.1.											
RH.11.2.											
RH.11.3.											
RH.11.4.											

RH.11.5.											
RH.11.6.											
RH.11.7.											
RH.11.8.											
RH.11.9.											
RH.11.10.											
RST.11.1.											
RST.11.2.											
RST.11.3.											
RST.11.4.											
RST.11.5.											
RST.11.6.											
RST.11.7.											
RST.11.8.											
RST.11.9.											
RST.11.10.											
WHST.111.											
WHST.112.											
WHST.113.											
WHST.114.											
WHST.115.											
WHST.116.											
WHST.117.		X									
WHST.118.											
WHST.119.											
WHST.1110											

Common Core Crosswalk for English/Language Arts (11-12) for Cosmetology

	Course	Unit 11	Unit 12	Unit 13	Unit 14	Unit 15	Unit 16	Unit 17	Unit 18	Unit 19	Unit 20
RL.11.1.											
RL.11.2.											
RL.11.3.											
RL.11.4.											
RL.11.5.											
RL.11.6.											
RL.11.7.											
RL.11.8.											
RL.11.9.											
RL.11.10											
RI.11.1.											
RI.11.2.											
RI.11.3.											
RI.11.4.											
RI.11.5.											
RI.11.6.											
RI.11.7.											
RI.11.8.					X		X				
RI.11.9.											
RI.11.10.											
W.11.1.											
W.11.2.											
W.11.3.											
W.11.4.											
W.11.5.											
W.11.6.											
W.11.7.											
W.11.8.											
W.11.9.											
W.11.10.											
SL.11.1.											
SL.11.2.											
SL.11.3.											

SL.11.4.					X		X				
SL.11.5.					X		X				
SL.11.6.											
L.11.1.											
L.11.2.											
L.11.3.											
L.11.4.											
L.11.5.											
L.11.6.											
RH.11.1.											
RH.11.2.											
RH.11.3.											
RH.11.4.											
RH.11.5.											
RH.11.6.											
RH.11.7.											
RH.11.8.											
RH.11.9.											
RH.11.10.											
RST.11.1.											
RST.11.2.											
RST.11.3.											
RST.11.4.											
RST.11.5.											
RST.11.6.											
RST.11.7.											
RST.11.8.											
RST.11.9.											
RST.11.10.											
WHST.11.1.											
WHST.112											
WHST.113.											
WHST.114.											
WHST.115.											
WHST.116.											
WHST.117.											
WHST.118.											
WHST.119.											
WHST.11.0											
Common Core Crosswalk for English/Language Arts (11-12) for Cosmetology											
	Course	Unit 21									
RL.11.1.											
RL.11.2.											
RL.11.3.											
RL.11.4.											
RL.11.5.											
RL.11.6.											
RL.11.7.											
RL.11.8.		X									
RL.11.9.											
RL.11.10											
RI.11.1.											
RI.11.2.											
RI.11.3.											
RI.11.4.											
RI.11.5.											
RI.11.6.											
RI.11.7.											
RI.11.8.											
RI.11.9.											
RI.11.10.											
W.11.1.											
W.11.2.											

W.11.3.											
W.11.4.											
W.11.5.											
W.11.6.											
W.11.7.											
W.11.8.											
W.11.9.											
W.11.10.											
SL.11.1.											
SL.11.2.											
SL.11.3.											
SL.11.4.											
SL.11.5.		X									
SL.11.6.											
L.11.1.											
L.11.2.											
L.11.3.											
L.11.4.											
L.11.5.											
L.11.6.											
RH.11.1.											
RH.11.2.											
RH.11.3.											
RH.11.4.											
RH.11.5.											
RH.11.6.											
RH.11.7.											
RH.11.8.											
RH.11.9.											
RH.11.10.		X									
RST.11.1.											
RST.11.2.											
RST.11.3.											
RST.11.4.											
RST.11.5.											
RST.11.6.											
RST.11.7.											
RST.11.8.											
RST.11.9.											
RST.11.10.											
WHST.11.1.											
WHST.11.2.											
WHST.11.3.											
WHST.11.4.											
WHST.11.5.											
WHST.11.6.											
WHST.11.7.		X									
WHST.11.8.		X									
WHST.11.9.		X									
WHST.11.10											

Reading Standards for Literature (11-12)

College and Career Readiness Anchor Standards for *Reading Literature*

Key Ideas and Details

RL.11.1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.

RL.11.2. Determine two or more themes or central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to produce a complex account; provide an objective summary of the text.

RL.11.3. Analyze the impact of the author's choices regarding how to develop and relate elements of a story or drama (e.g., where a story is set, how the action is ordered, how the characters are introduced and developed).

Craft and Structure

RL.11.4. Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including words with multiple meanings or language that is particularly fresh, engaging, or beautiful. (Include Shakespeare as well as other authors.)

RL.11.5. Analyze how an author's choices concerning how to structure specific parts of a text (e.g., the choice of where to begin or end a story, the choice to provide a comedic or tragic resolution) contribute to its overall structure and meaning as well as its aesthetic impact.

RL.11.6. Analyze a case in which grasping point of view requires distinguishing what is directly stated in a text from what is really meant (e.g., satire, sarcasm, irony, or understatement).

Integration of Knowledge and Ideas

RL.11.7. Analyze multiple interpretations of a story, drama, or poem (e.g., recorded or live production of a play or recorded novel or poetry), evaluating how each version interprets the source text. (Include at least one play by Shakespeare and one play by an American dramatist.)

RL.11.8. (Not applicable to literature)

RL.11.9. Demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature, including how two or more texts from the same period treat similar themes or topics.

Range of Reading and Level of Text Complexity

RL.11.10. By the end of grade 11, read and comprehend literature, including stories, dramas, and poems, in the grades 11–CCR text complexity band proficiently, with scaffolding as needed at the high end of the range.
By the end of grade 12, read and comprehend literature, including stories, dramas, and poems, at the high end of the grades 11–CCR text complexity band independently and proficiently.

Reading Standards for Informational Text (11-12)

College and Career Readiness Anchor Standards for *Informational Text*

Key Ideas and Details

RI.11.1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.

RI.11.2. Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to provide a complex analysis; provide an objective summary of the text.

RI.11.3. Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text.

Craft and Structure

RI.11.4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze how an author uses and refines the meaning of a key term or terms over the course of a text (e.g., how Madison defines faction in Federalist No. 10).

RI.11.5. Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging.

RI.11.6. Determine an author's point of view or purpose in a text in which the rhetoric is particularly effective, analyzing how style and content contribute to the power, persuasiveness, or beauty of the text.

Integration of Knowledge and Ideas

RI.11.7. Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.

RI.11.8. Delineate and evaluate the reasoning in seminal U.S. texts, including the application of constitutional principles and use of legal reasoning (e.g., in U.S. Supreme Court majority opinions and dissents) and the premises, purposes, and arguments in works of public advocacy (e.g., The Federalist, presidential addresses).

RI.11.9. Analyze seventeenth-, eighteenth-, and nineteenth-century foundational U.S. documents of historical and literary significance (including The Declaration of Independence, the Preamble to the Constitution, the Bill of Rights, and Lincoln's Second Inaugural Address) for their themes, purposes, and rhetorical features.

Range of Reading and Level of Text Complexity

RI.11.10. By the end of grade 11, read and comprehend literary nonfiction in the grades 11–CCR text complexity band proficiently, with scaffolding as needed at the high end of the range.
By the end of grade 12, read and comprehend literary nonfiction at the high end of the grades 11–CCR text complexity band independently and proficiently.

College and Career Readiness Anchor Standards for *Writing*

Text Types and Purposes

W.11.1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

a. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence.

b. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases.

c. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.

d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

e. Provide a concluding statement or section that follows from and supports the argument presented.

W.11.2. Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

a. Introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

b. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.

c. Use appropriate and varied transitions and syntax to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.

d. Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic.

e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

W.11.3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

a. Engage and orient the reader by setting out a problem, situation, or observation and its significance, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events.

b. Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters

c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome (e.g., a sense of mystery, suspense, growth, or resolution).

d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters.
e. Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.

Production and Distribution of Writing

W.11.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

W.11.5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grades 11–12 on page 54.)

W.11.6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.

Research to Build and Present Knowledge

W.11.7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

W.11.8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

W.11.9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

a. Apply grades 11–12 Reading standards to literature (e.g., "Demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature, including how two or more texts from the same period treat similar themes or topics").

b. Apply grades 11–12 Reading standards to literary nonfiction (e.g., "Delineate and evaluate the reasoning in seminal U.S. texts, including the application of constitutional principles and use of legal reasoning [e.g., in U.S. Supreme Court Case majority opinions and dissents] and the premises, purposes, and arguments in works of public advocacy [e.g., The Federalist, presidential addresses]").

Range of Writing

~~W.11.10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.~~

College and Career Readiness Anchor Standards for *Speaking and Listening*

Comprehension and Collaboration

SL.11.1. Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.

b. Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed.

c. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.

d. Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.

SL.11.2. Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.

SL.11.3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.

Presentation of Knowledge and Ideas

SL.11.4. Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

SL.11.5. Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

SL.11.6. Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate. (See grades 11–12 Language standards 1 and 3 on page 54 for specific expectations.)

College and Career Readiness Anchor Standards for *Language*

Conventions of Standard English

L.11.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

a. Apply the understanding that usage is a matter of convention, can change over time, and is sometimes contested.

b. Resolve issues of complex or contested usage, consulting references (e.g., Merriam-Webster's Dictionary of English Usage, Garner's Modern American Usage) as needed.

L.11.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

a. Observe hyphenation conventions.

b. Spell correctly.

Knowledge of Language

L.11.3. Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

a. Vary syntax for effect, consulting references (e.g., Tufte's Artful Sentences) for guidance as needed; apply an understanding of syntax to the study of complex texts when reading.

Vocabulary Acquisition and Use

L.11.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grades 11–12 reading and content, choosing flexibly from a range of strategies.

a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.

b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., conceive, conception, conceivable).

c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, its etymology, or its standard usage.

d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).

L.11.5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

a. Interpret figures of speech (e.g., hyperbole, paradox) in context and analyze their role in the text.
b. Analyze nuances in the meaning of words with similar denotations.

L.11.6. Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Reading Standards for Literacy in History/Social Studies (11-12)

Key Ideas and Details

RH.11.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

RH.11.2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas

RH.11.3. Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain

Craft and Structure

RH.11.4. Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10).

RH.11.5. Analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole.

RH.11.6. Evaluate authors' differing points of view on the same historical event or issue by assessing the authors' claims, reasoning, and evidence.

Integration of Knowledge and Ideas

RH.11.7. Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.

RH.11.8. Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other information.

RH.11.9. Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.

Range of Reading and Level of Text Complexity

RH.11.10. By the end of grade 12, read and comprehend history/social studies texts in the grades 11–CCR text complexity band independently and proficiently.

Reading Standards for Literacy in Science and Technical Subjects (11-12)

Key Ideas and Details

RST.11.1. Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.

RST.11.2. Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.

RST.11.3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.

Craft and Structure

RST.11.4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11–12 texts and topics.

RST.11.5. Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.

RST.11.6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.

Integration of Knowledge and Ideas

RST.11.7. Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.

RST.11.8. Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.

RST.11.9. Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

Range of Reading and Level of Text Complexity

RST.11.10. By the end of grade 12, read and comprehend science/technical texts in the grades 11–CCR text complexity band independently and proficiently.

Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects (11-12)

Text Types and Purposes

WHST.11.1. Write arguments focused on discipline-specific content.

a. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.

b. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.

c. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s)

and reasons, between reasons and evidence, and between claim(s) and counterclaims.

d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

e. Provide a concluding statement or section that follows from or supports the argument presented.

WHST.11.2. Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.

a. Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

b. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.

c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.

d. Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.

e. Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).

WHST.11.3. (Not applicable as a separate requirement)

Production and Distribution of Writing

WHST.11.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

WHST.11.5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

WHST.11.6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.

Research to Build and Present Knowledge

WHST.11.7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

WHST.11.8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

WHST.11.9. Draw evidence from informational texts to support analysis, reflection, and research.

Range of Writing

WHST.11.10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Common Core Crosswalk for Mathematics (11-12)

	Course	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10
Insert academic standards here											
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Common Core Crosswalk for Mathematics (11-12)

	Course	Unit 11	Unit 12	Unit 13	Unit 14	Unit 15	Unit 16	Unit 17	Unit 18	Unit 19	Unit 20
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Common Core Crosswalk for Mathematics (11-12)

	Course	Unit 21									
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Mathematics (High School)

Number and Quantity

The Real Number System

N-RN.1. Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents.

N-RN.2. Rewrite expressions involving radicals and rational exponents using the properties of exponents.

N-RN.3. Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational.

Quantities

N-Q.1. Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

N-Q.2. Define appropriate quantities for the purpose of descriptive modeling.

N-Q.3. Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

The Complex Number System

N-CN.1. Know there is a complex number i such that i2= −1, and every complex number has the form a + bi with a and b real.

N-CN.2. Use the relation i2= −1 and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers.

N-CN.3. (+) Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers.

N-CN.4. (+) Represent complex numbers on the complex plane in rectangular and polar form (including real and imaginary numbers), and explain why the rectangular and polar forms of a given complex number represent the same number.

N-CN.5. (+) Represent addition, subtraction, multiplication, and conjugation of complex numbers geometrically on the complex plane; use properties of this representation for computation. For example, (−1 + √3 i)3= 8 because (−1 + √3 i) has modulus 2 and argument 120°.

N-CN.6. (+) Calculate the distance between numbers in the complex plane as the modulus of the difference, and the midpoint of a segment as the average of the numbers at its endpoints.

N-CN.7. Solve quadratic equations with real coefficients that have complex solutions.

N-CN.8. (+) Extend polynomial identities to the complex numbers. For example, rewrite x2+ 4 as (x + 2i)(x − 2i).

N-CN.9. (+) Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials.

Vector and Matrix Quantities

N-VM.1. (+) Recognize vector quantities as having both magnitude and direction. Represent vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes (e.g., v, |v|, ||v||, v).

N-VM.2. (+) Find the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point.

N-VM.3. (+) Solve problems involving velocity and other quantities that can be represented by vectors.

N-VM.4. (+) Add and subtract vectors

N-VM.4.a. Add vectors end-to-end, component-wise, and by the parallelogram rule. Understand that the magnitude of a sum of two vectors is typically not the sum of the magnitudes.

N-VM.4.b. Given two vectors in magnitude and direction form, determine the magnitude and direction of their sum.

N-VM.4.c. Understand vector subtraction v − w as v + (−w), where −w is the additive inverse of w, with the same magnitude as w and pointing in the opposite direction. Represent vector subtraction graphically by connecting the tips in the appropriate order, and perform vector subtraction component-wise.

N-VM.5. (+) Multiply a vector by a scalar.

N-VM.5.a. Represent scalar multiplication graphically by scaling vectors and possibly reversing their direction; perform scalar multiplication component-wise, e.g., as c(vx, vy) = (cvx, cvy).

N-VM.5.b. Compute the magnitude of a scalar multiple cv using ||cv|| = |c|v. Compute the direction of cv knowing that when |c|v ≠ 0, the direction of cv is either along v (for c > 0) or against v (for c < 0).

N-VM.6. (+) Use matrices to represent and manipulate data, e.g., to represent payoffs or incidence relationships in a network.

N-VM.7. (+) Multiply matrices by scalars to produce new matrices, e.g., as when all of the payoffs in a game are doubled.

N-VM.8. (+) Add, subtract, and multiply matrices of appropriate dimensions.

N-VM.9. (+) Understand that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties

N-VM.10. (+) Understand that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse.

N-VM.11. (+) Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Work with matrices as transformations of vectors.

N-VM.12. (+) Work with 2 × 2 matrices as transformations of the plane, and interpret the absolute value of the determinant in terms of area.

Algebra

Seeing Structure in Expressions

A-SSE.1. Interpret expressions that represent a quantity in terms of its context.

A-SSE.1.a. Interpret parts of an expression, such as terms, factors, and coefficients.

A-SSE.1.b. Interpret complicated expressions by viewing one or more of their parts as a single entity. For example, interpret P(1+r)n as the product of P and a factor not depending on P.

A-SSE.2. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.

A-SSE.3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.

A-SSE.3.a. Factor a quadratic expression to reveal the zeros of the function it defines.

A-SSE.3.b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.

A-SSE.3.c. Use the properties of exponents to transform expressions for exponential functions.

A-SSE.4. Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems. For example, calculate mortgage payments.

Arithmetic with Polynomials and Rational Expressions

A-APR.1. Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials

A-APR.2. Know and apply the Remainder Theorem: For a polynomial p(x) and a number a, the remainder on division by x − a is p(a), so p(a) = 0 if and only if (x − a) is a factor of p(x).

A-APR.3. Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.

A-APR.4. Prove polynomial identities and use them to describe numerical relationships.

A-APR.5. (+) Know and apply the Binomial Theorem for the expansion of (x+ y)n in powers of x and y for a positive integer n, where x and y are any numbers, with coefficients determined for example by Pascal's Triangle.

A-APR.6. Rewrite simple rational expressions in different forms; write a(x)/b(x)in the form q(x) + r(x)/b(x), where a(x), b(x), q(x), and r(x) are polynomials with the degree of r(x) less than the degree of b(x), using inspection, long division, or, for the more complicated examples, a computer algebra system.

A-APR.7. (+) Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions.

Creating Equations

A-CED.1. Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.

A-CED.2. Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

A-CED.3. Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.

A-CED.4. Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. For example, rearrange Ohm's law V =IR to highlight resistance R.

Reasoning with Equations and Inequalities

A-REI.1. Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.

A-REI.2. Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.

A-REI.3. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.

A-REI.4. Solve quadratic equations in one variable.

A-REI.4.a. Use the method of completing the square to transform any quadratic equation in x into an equation of the form (x − p)2= q that has the same solutions. Derive the quadratic formula from this form.

A-REI.4.b. Solve quadratic equations by inspection (e.g., for x2= 49), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as a ± bi for real numbers a and b.

A-REI.5. Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.

A-REI.6. Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.

A-REI.7. Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. For example, find the points of intersection between the line y = −3x and the circle x2+y2= 3.

A-REI.8. (+) Represent a system of linear equations as a single matrix equation in a vector variable.

A-REI.9. (+) Find the inverse of a matrix if it exists and use it to solve systems of linear equations (using technology for matrices of dimension 3 × 3 or greater).

A-REI.10. Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).

A-REI.11. Explain why the x-coordinates of the points where the graphs of the equations y = f(x) and y = g(x) intersect are the solutions of the equation f(x) = g(x); find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) and/or g(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.

A-REI.12.Graph the solutions to a linear inequality in two variables as a half plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.

Functions

Interpreting Functions

F-IF.1. Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then f(x) denotes the output of f corresponding to the input x. The graph of f is the graph of the equation y = f(x).

F-IF.2. Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.

F-IF.3. Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. For example, the Fibonacci sequence is defined recursively by $f(0) = f(1) = 1$, $f(n+1) = f(n) + f(n-1)$ for $n \geq 1$.

F-IF.4. For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.

F-IF.5. Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. For example, if the function h(n) gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.

F-IF.6. Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.

F-IF.7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.

F-IF.7.a. Graph linear and quadratic functions and show intercepts, maxima, and minima.

F-IF.7.b. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.

F-IF.7.c. Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior.

F-IF.7.d. (+) Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available, and showing end behavior.

F-IF.7.e. Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.

F-IF.8. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.

F-IF.8.a. Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.

F-IF.8.b. Use the properties of exponents to interpret expressions for exponential functions.

F-IF.9. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.

Building Functions

F-BF.1. Write a function that describes a relationship between two quantities.

F-BF.1.a. Determine an explicit expression, a recursive process, or steps for calculation from a context.

F-BF.1.b. Combine standard function types using arithmetic operations. For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.

F-BF.1.c. (+) Compose functions. For example, if T(y) is the temperature in the atmosphere as a function of height, and h(t) is the height of a weather balloon as a function of time, then T(h(t)) is the temperature at the location of the weather balloon as a function of time.

F-BF.2. Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.

F-BF.3. Identify the effect on the graph of replacing f(x) by f(x) + k, k f(x), f(kx), and f(x + k) for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them.

F-BF.4. Find inverse functions.

F-BF.4.a. Solve an equation of the form f(x) = c for a simple function f that has an inverse and write an expression for the inverse.

F-BF.4.b. (+) Verify by composition that one function is the inverse of another.

F-BF.4.c. (+) Read values of an inverse function from a graph or a table, given that the function has an inverse.

F-BF.4.d. (+) Produce an invertible function from a non-invertible function by restricting the domain.

F-BF.5. (+) Understand the inverse relationship between exponents and logarithms and use this relationship to solve problems involving logarithms and exponents.

Linear, Quadratic, and Exponential Models

F-LE.1. Distinguish between situations that can be modeled with linear functions and with exponential functions.

F-LE.1.a. Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals.

F-LE.1.b. Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.

F-LE.1.c. Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another

F-LE.2. Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).

F-LE.3. Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.

F-LE.4. For exponential models, express as a logarithm the solution to ab ct = d where a, c, and d are numbers and the base b is 2, 10, or e; evaluate the logarithm using technology.

F-LE.5. Interpret the parameters in a linear or exponential function in terms of a context.

Trigonometric Functions

F-TF.1. Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle.

F-TF.2. Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle.

F-TF.3. (+) Use special triangles to determine geometrically the values of sine, cosine, tangent for $\pi/3$, $\pi/4$ and $\pi/6$, and use the unit circle to express the values of sine, cosine, and tangent for $\pi - x$, $\pi+x$, and $2\pi - x$ in terms of their values for x, where x is any real number.

F-TF.4. (+) Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions.

F-TF.5. Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.

F-TF.6. (+) Understand that restricting a trigonometric function to a domain on which it is always increasing or always decreasing allows its inverse to be constructed.

F-TF.7. (+) Use inverse functions to solve trigonometric equations that arise in modeling contexts; evaluate the solutions using technology, and interpret them in terms of the context.

F-TF.8. Prove the Pythagorean identity $\sin^2(\theta) + \cos^2(\theta) = 1$ and use it to find $\sin(\theta)$, $\cos(\theta)$, or $\tan(\theta)$ given $\sin(\theta)$, $\cos(\theta)$, or $\tan(\theta)$ and the quadrant of the angle.

F-TF.9. (+) Prove the addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems.

Geometry

Congruence

G-CO.1. Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.

G-CO.2. Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch).

G-CO.3. Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself.

G-CO.4. Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.

G-CO.5. Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.

G-CO.6. Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.

G-CO.7. Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.

G-CO.8. Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.

G-CO.9. Prove theorems about lines and angles. Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.

G-CO.10. Prove theorems about triangles. Theorems include: measures of interior angles of a triangle sum to 180°; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.

G-CO.11. Prove theorems about parallelograms. Theorems include: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.

G-CO.12. Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). Copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line.

G-CO.13. Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.

Similarity, Right Triangles, and Trigonometry

G-SRT.1. Verify experimentally the properties of dilations given by a center and a scale factor:

G-SRT.1.a. A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged.

G-SRT.1.b. The dilation of a line segment is longer or shorter in the ratio given by the scale factor.

G-SRT.2. Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.

G-SRT.3. Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar.

G-SRT.4. Prove theorems about triangles. Theorems include: a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean Theorem proved using triangle similarity.

G-SRT.5. Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.

G-SRT.6. Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.

G-SRT.7. Explain and use the relationship between the sine and cosine of complementary angles.

G-SRT.8. Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.

G-SRT.9. (+) Derive the formula $A = 1/2\ ab\ \sin(C)$ for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side.

G-SRT.10. (+) Prove the Laws of Sines and Cosines and use them to solve problems.

G-SRT.11. (+) Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).

Circles

G-C.1. Prove that all circles are similar.

G-C.2. Identify and describe relationships among inscribed angles, radii, and chords. Include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.

G-C.3. Construct the inscribed and circumscribed circles of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle.

G-C.4. (+) Construct a tangent line from a point outside a given circle to the circle.

G-C.5. Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector.

Expressing Geometric Properties with Equations

G-GPE.1. Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation.

G-GPE.2. Derive the equation of a parabola given a focus and directrix.

G-GPE.3. (+) Derive the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant.

G-GPE.4. Use coordinates to prove simple geometric theorems algebraically. For example, prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle; prove or disprove that the point (1, √3) lies on the circle centered at the origin and containing the point (0, 2).

G-GPE.5. Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).

G-GPE.6. Find the point on a directed line segment between two given points that partitions the segment in a given ratio.

G-GPE.7. Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula.

Geometric Measurement and Dimension

G-GMD.1. Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. Use dissection arguments, Cavalieri's principle, and informal limit arguments.

G-GMD.2. (+) Give an informal argument using Cavalieri's principle for the formulas for the volume of a sphere and other solid figures.

G-GMD.3. Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.

G-GMD.4. Identify the shapes of two-dimensional cross-sections of three dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects.

Modeling with Geometry

G-MG.1. Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).

G-MG.2. Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot).

G-MG.3. Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).

Statistics and Probability

Interpreting Categorical and Quantitative Data

S-ID.1. Represent data with plots on the real number line (dot plots, histograms, and box plots).

S-ID.2. Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.

S-ID.3. Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).

S-ID.4. Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate.
Use calculators, spreadsheets, and tables to estimate areas under the normal curve.

S-ID.5. Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.

S-ID.6. Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.

S-ID.6.a. Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models.

S-ID.6.b. Informally assess the fit of a function by plotting and analyzing residuals.

S-ID.6.c. Fit a linear function for a scatter plot that suggests a linear association.

S-ID.7. Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.

S-ID.8. Compute (using technology) and interpret the correlation coefficient of a linear fit.

S-ID.9. Distinguish between correlation and causation.

Making Inferences and Justifying Conclusions

S-IC.1. Understand statistics as a process for making inferences about population parameters based on a random sample from that population.

S-IC.2. Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation. For example, a model says a spinning coin falls heads up with probability 0.5. Would a result of 5 tails in a row cause you to question the model?

S-IC.3. Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.

S-IC.4. Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling.

S-IC.5. Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant.

S-IC.6. Evaluate reports based on data.

Conditional Probability and the Rules of Probability

S-CP.1. Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events ("or," "and," "not").

S-CP.2. Understand that two events A and B are independent if the probability of A and B occurring together is the product of their probabilities, and use this characterization to determine if they are independent.

~~S-CP.3. Understand the conditional probability of A given B as P(A and B)/P(B), and interpret independence of A and B as saying that the conditional probability of A given B is the same as the probability of A, and the conditional probability of B given A is the same as the probability of B.~~

~~S-CP.4. Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities. For example, collect data from a random sample of students in your school on their favorite subject among math, science, and English. Estimate the probability that a randomly selected student from your school will favor science given that the student is in tenth grade. Do the same for other subjects and compare the results.~~

~~S-CP.5. Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. For example, compare the chance of having lung cancer if you are a smoker with the chance of being a smoker if you have lung cancer.~~

~~S-CP.6. Find the conditional probability of A given B as the fraction of B's outcomes that also belong to A, and interpret the answer in terms of the model.~~

~~S-CP.7. Apply the Addition Rule, P(A or B) = P(A) + P(B) – P(A and B), and interpret the answer in terms of the model.~~

~~S-CP.8. (+) Apply the general Multiplication Rule in a uniform probability model, P(A and B) = P(A)P(B|A) = P(B)P(A|B), and interpret the answer in terms of the model.~~

~~S-CP.9. (+) Use permutations and combinations to compute probabilities of compound events and solve problems.~~

~~Using Probability to Make Decisions~~

~~S-MD.1. (+) Define a random variable for a quantity of interest by assigning a numerical value to each event in a sample space; graph the corresponding probability distribution using the same graphical displays as for data distributions.~~

~~S-MD.2. (+) Calculate the expected value of a random variable; interpret it as the mean of the probability distribution.~~

~~S-MD.3. (+) Develop a probability distribution for a random variable defined for a sample space in which theoretical probabilities can be calculated; find the expected value. For example, find the theoretical probability distribution for the number of correct answers obtained by guessing on all five questions of a multiple-choice test where each question has four choices, and find the expected grade under various grading schemes.~~

~~S-MD.4. (+) Develop a probability distribution for a random variable defined for a sample space in which probabilities are assigned empirically; find the expected value. For example, find a current data distribution on the number of TV sets per household in the United States, and calculate the expected number of sets per household. How many TV sets would you expect to find in 100 randomly selected households?~~

~~S-MD.5. (+) Weigh the possible outcomes of a decision by assigning probabilities to payoff values and finding expected values.~~

~~S-MD.5.a. Find the expected payoff for a game of chance. For example, find the expected winnings from a state lottery ticket or a game at a fast-food restaurant.~~

~~S-MD.5.b. Evaluate and compare strategies on the basis of expected values. For example, compare a high-deductible versus a low-deductible automobile insurance policy using various, but reasonable, chances of having a minor or a major accident.~~

~~S-MD.6. (+) Use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator).~~

~~S-MD.7. (+) Analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game).~~

Appendix E: International Society for Technology in Education Standards (ISTE)

ISTE Crosswalk for Cosmetology											
	Course	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10
Insert academic standards here											
T1		X	X	X	X	X	X	X	X	X	X
T2		X	X	X	X	X	X	X	X	X	X
T3		X									X
T4						X		X		X	
T5											
T6											

ISTE Crosswalk for Cosmetology											
	Course	Unit 11	Unit 12	Unit 13	Unit 14	Unit 15	Unit 16	Unit 17	Unit 18	Unit 19	Unit 20
T1		X	X	X	X	X	X	X	X	X	X
T2		X	X	X	X	X	X	X	X	X	X
T3											X
T4											X
T5											X
T6											X

ISTE Crosswalk for Cosmetology											
	Course	Unit 21									
T1		X									
T2											
T3											
T4											
T5											
T6											

T1 – Creativity and Innovation
T2 – Communication and Collaboration
T3 – Research and Information Fluency
T4 – Critical Thinking, Problem Solving, and Decision Making
T5 – Digital Citizenship
T6 – Technology Operations and Concepts

T1 – Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students do the following:

a. Apply existing knowledge to generate new ideas, products, or processes.
b. Create original works as a means of personal or group expression.
c. Use models and simulations to explore complex systems and issues.
d. Identify trends and forecast possibilities.

T2 Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students do the following:

a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats.
c. Develop cultural understanding and global awareness by engaging with learners of other cultures.
d. Contribute to project teams to produce original works or solve problems.

T3 Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students do the following:

a. Plan strategies to guide inquiry.
b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
d. Process data and report results.

T4 Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students do the following:

a. Identify and define authentic problems and significant questions for investigation.
b. Plan and manage activities to develop a solution or complete a project.
c. Collect and analyze data to identify solutions and/or make informed decisions.
d. Use multiple processes and diverse perspectives to explore alternative solutions.

T5 Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students do the following:

a. Advocate and practice safe, legal, and responsible use of information and technology.
b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
c. Demonstrate personal responsibility for lifelong learning.
d. Exhibit leadership for digital citizenship.

T6 Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations. Students do the following:

a. Understand and use technology systems.

b. Select and use applications effectively and productively.

c. Troubleshoot systems and applications.

d. Transfer current knowledge to learning of new technologies.

Appendix F: MSBC Checklist

Mississippi Board of Cosmetology Checklist

DATE OF ENROLLMENT _____ **MONTH** _____

NAME OF SCHOOL _____ **NAME OF STUDENT** _____

THEORY	Hours Required	Hours This Month	Hours Last Month	Total Hours	Date
Sterilization and Sanitation	15-20				
Hygiene and Good Grooming	10				
Professional Attitude & Salesmanship	10				
Anatomy Function of Nerves Muscles & Blood	15-20				
Dermatology	15-20				
Trichology	15-20				
Nails	20				
Chemistry	15-20				
Safety Precautions	15				
State Cosmetology Laws, Rules & Regulations	20				
Theory Demonstration Classes	80				
TOTAL NUMBER OF HOURS (THEORY)	240-250				
Practical					
Shampoo and Rinse	100-150				
Scalp and Hair Care	30-40				
Hair Shaping – Scissor & Razor	85-100				
Hair Styling (Pin Curls, Rollers, Comb-out, Finger Waving)	200				
The Care & Styling of Wigs	10				
Manicuring	75-100				
Permanent Waving	80-110				
Hair Coloring & Lightening	75-80				
Chemical Hair Relaxing	80-100				
Facial & Make-Up	50-70				
Thermal Techniques	100-115				
Safety Precautions	50-80				
Skill Classes (List subject taught)	80-90				
NUMBER OF HOURS (PRACTICAL)	1250				
COMBINED NUMBER OF HOURS	1500				

PROGRESS REPORT OF STUDENT: (VERY IMPORTANT)

INSTRUCTOR'S SIGNATURE _____

STUDENT'S SIGNATURE _____

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