SANTA MONICA COLLEGE ACADEMIC SENATE
1900 Pico Boulevard Santa Monica, CA 90405
310.434.4611

Curriculum Committee Agenda

Wednesday, November 4, 2026, 3:00 p.m.
Drescher Hall, Loft (3rd Floor, Room 300-E)

Guests and members of the public may attend via Zoom:
https://smc-edu.zoom.us/j/88008685421

Meeting ID: 880 0868 5421

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Find your local number: https://smc-edu.zoom.us/u/kog4GeKXL

Members:

Redelia Shaw, *Chair*
Dione Hodges, *Vice Chair*
Lourdes Arévalo
Jason Beardsley
Walter Butler
Susan Caggiano
Evelyn Chantani
Rachel Demski
Catherine Haradon
Aileen Huang
Justice Isaacs
Sharlene Joachim
Koda Kol
Jesus Lopez
Walt Louie
Karol Lu
Jiale Ma (A.S.)
Emin Menachekanian
Asunta Moisan
Jessica Rodriguez
Gabriel Sanchez (A.S.)
Scott Silverman
Bobby Simmons
Briana Simmons
Lydia Strong
Olivia Vallejo
Audra Wells

Interested Parties:

Stephanie Amerian
Maria Bonin
Department Chairs
Nick Chambers
Kiersten Elliott
Jessie Garcia
Jose Hernandez
Tracie Hunter
Maral Hyeler
Luis Jauregui
Liz Koenig
Kristin Lui-Martinez
Maria Munoz
Stacy Neal
Tamika Phillips
Steven Sedky
Esau Tovar
Paula Cortes (A.S.)
Tammara Whitaker

Ex-Officio Members:

Vicenta Arrizon

(Information items are listed numerically; action items are listed alphabetically)

I. Call to Order and Approval of Agenda

II. Public Comments

(Two minutes is allotted to any member of the public who wishes to address the Committee.)

III. Announcements

IV. Approval of Minutes (October 21, 2026) 6

V. Chair's Report

VI. Information Items

1. ASCCC Curriculum Committee Training and IDEAA Modules
2. Universal Design for Learning (UDL)
3. UC/Cal-GETC Updates
4. Common Course Numbering (CCN) Updates

VII. Action Items

Consent Agenda: SLO/PLO Mapping

a. Advanced English as a Second Language Noncredit Certificate of Competency 10
b. Beginning English as a Second Language Noncredit Certificate of Competency 12
c. Geospatial Technology Certificate of Achievement 13
d. Intermediate English as a Second Language Noncredit Certificate of Competency 16
e. Low Advanced English as a Second Language Noncredit Certificate of Competency 17
f. Low Intermediate English as a Second Language Noncredit Certificate of Competency 18
g. Transition to College and Career Noncredit Certificate of Completion 19

Courses

h. BIOL 1A Cells, Molecular Biology and Genetics
- New Course 20
- Distance Education (Hybrid Only) 22
- Prerequisite: CHEM 11 24
- Advisory: ENGL C1000 26

i. BIOL 1B Introduction to Biological Diversity, Ecology and Evolution
- New Course 27
- Global Citizenship 29
- Distance Education (Hybrid Only) 30
- Advisory: ENGL C1000 32

j. BIOL 1L Research Methodology in Biological Sciences
- New Course 33
- Distance Education (Hybrid Only) 35
- Prerequisite: CHEM 11 37
- Pre/corequisite: BIOL 1A or BIOL 1B 39
- Advisory: ENGL C1000 43

k. GIS 29 Introduction to Uncrewed Vehicles and Geospatial Applications
- New Course 44
- Distance Education (Fully Online/Hybrid) 46
- Advisory: GIS 20/GEOG 20 49

l. COSM 10A Related Science 1A
- Changes: description, hours/units (1 lecture/1 lab/1 unit to 2 lecture/0 lab/2 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments. 50

m. COSM 10B Related Science 1B

- Changes: description, hours/units (1 lecture/1 lab/1 unit to 2 lecture/0 lab/2 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments. 53

n. COSM 11A Hair Cutting 1
- Changes: description, hours/units (1 lecture/1 lab/1 unit to 2 lecture/0 lab/2 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments. 56

o. COSM 11B Hair Styling 1
- Changes: description, hours/units (1 lecture/1 lab/1 unit to 2 lecture/0 lab/2 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments. 59

p. COSM 11C Hair Coloring 1
- Changes: description, hours/units (1 lecture/1 lab/1 unit to 2 lecture/0 lab/2 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments. 61

q. COSM 11D Permanent Waving
- Changes: hours/units (1 lecture/1 lab/1 unit to 2 lecture/0 lab/2 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 63

r. COSM 11E Curly Hair Techniques 1
- Changes: description, hours/units (2 lab/0.5 units to 2 lecture/0 lab/2 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 65

s. COSM 16 Nail Care 1
- Changes: hours/units (1 lecture/1 lab/1 unit to 2 lecture/0 lab/2 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 67

t. COSM 18 Skin Care 1
- Changes: description, hours/units (1 lecture/1 lab/1 unit to 2 lecture/0 lab/2 units), SLOs, objectives, content, methods of presentation, methods of evaluation, assignments 70

u. COSM 20 Related Science 2
- Changes: hours/units (1 lecture/0.5 lab/1 unit to 1.5 lecture/0 lab/1.5 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 72

v. COSM 21A Hair Cutting 2
- Changes: hours/units (1 lecture/0.5 lab/1 unit to 1.5 lecture/0.5 lab/1.5 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 75

w. COSM 21B Hair Styling 2
- Changes: hours/units (1 lecture/0.5 lab/1 unit to 1.5 lecture/0.5 lab/1.5 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 77

x. COSM 21C Hair Coloring 2
- Changes: hours/units (1 lecture/0.5 lab/1 unit to 1.5 lecture/0.5 lab/1.5 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 80

y. COSM 21E Curly Hair Techniques 2
- Changes: hours/units (1 lecture/1 lab/1 unit to 2 lecture/0 lab/2 units), SLOs, objectives, content, methods of presentation, methods of evaluation, assignments 83

z. COSM 26 Nail Care 2
- Changes: hours/units (1 lecture/1 lab/1 unit to 1.5 lecture/0.5 lab/1.5 units), SLOs, objectives, content, methods of evaluation, textbooks, assignments 85
- Adding Prerequisite: COSM 16 87

aa. COSM 28A Skin Care 2A
- Changes: hours/units (1 lecture/1 lab/1 unit to 1.5 lecture/0.5 lab/1.5 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 90

bb. COSM 28B Skin Care 2B
- Changes: hours/units (1 lecture/1 lab/1 unit to 1.5 lecture/0.5 lab/1.5 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 93

cc. COSM 30 Related Science 3
- Changes: hours/units (1 lecture/0.5 lab/1 unit to 1.5 lecture/0 lab/1.5 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 96

dd. COSM 31A Hair Cutting 3
- Changes: hours/units (1 lecture/1 lab/1 unit to 1.5 lecture/0.5 lab/1.5 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 99

ee. COSM 31C Hair Coloring 3
- Changes: hours/units (1 lecture/1 lab/1 unit to 1.5 lecture/0.5 lab/1.5 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 101

ff. COSM 31E Multi Texture Styling
- Changes: description, hours/units (1 lecture/1 lab/1 unit to 1.5 lecture/0.5 lab/1.5 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 103

gg. COSM 36 Nail Care 3
- Changes: hours/units (1 lecture/1 lab/1 unit to 1.5 lecture/0.5 lab/1.5 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 105

hh. COSM 38 Skin Care 3
- Changes: description, hours/units (1 lecture/1 lab/1 unit to 1.5 lecture/0.5 lab/1.5 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 108

ii. COSM 38B Mechanical Exfoliation
- Changes: description, hours/units (1 lecture/1 lab/1 unit to 1.5 lecture/0.5 lab/1.5 units), SLOs, objectives, content, methods of evaluation, textbooks, assignments 111

jj. COSM 38C Chemical Exfoliation
- Changes: description, hours/units (1 lecture/1 lab/1 unit to 1.5 lecture/0.5 lab/1.5 units), SLOs, objectives, content, methods of evaluation, textbooks, assignments 113

kk. COSM 42 Short Hair Cutting
- Changes: hours/units (1 lecture/1 lab/1 unit to 1.5 lecture/0.5 lab/1.5 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 115

ll. COSM 46 Nail Care 4
- Changes: hours/units (1 lecture/1 lab/1 unit to 1.5 lecture/0.5 lab/1.5 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 117

mm. COSM 48 Skin Care 4
- Changes: hours/units (1 lecture/1 lab/1 unit to 1.5 lecture/0.5 lab/1.5 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments 119

nn. COSM 48B Make-Up
- Changes: description, hours/units (1 lecture/1 lab/1 unit to 1.5 lecture/0.5 lab/1.5 units), SLOs,

objectives, content, methods of evaluation, textbooks, assignments 122

oo. COSM 77 Barbering
- Changes: hours/units (1 lecture/3 lab/2 units to 3 lecture/1 lab/3 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments, minimum qualifications 125

pp. COSM 78 Barbering 2
- Changes: hours/units (1 lecture/3 lab/2 units to 3 lecture/1 lab/3 units), SLOs, objectives, content, methods of presentation, methods of evaluation, textbooks, assignments, minimum qualifications 127

Programs

qq. Biology 2.0 AS-T
- New degree..... 129
- Program Map 136

rr. Changes to degrees, certificates, and program maps as a result of courses considered on this agenda

VIII. New Business

IX. Old Business

X. Adjournment

Please notify Redelia Shaw, Dione Hodges, and Rachel Demski by email if you are unable to attend this meeting.

The next Curriculum Committee meeting is November 18, 2026.

SANTA MONICA COLLEGE ACADEMIC SENATE
1900 Pico Boulevard Santa Monica, CA 90405
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Curriculum Committee Minutes

Wednesday, October 21, 2026, 3:00 p.m.
Drescher Hall, Loft (3rd Floor, Room 300-E)
Zoom (guests/members of the public)

Members Present:

Redelia Shaw, *Chair*	Evelyn Chantani	Jiale Ma (A.S.)	Bobby Simmons
Dione Hodges, *Vice Chair*	Rachel Demski	Emin Menachekanian	Briana Simmons
Lourdes Arévalo	Justice Isaacs	Asunta Moisan	Lydia Strong
Jason Beardsley	Koda Kol	Jessica Rodriguez	Olivia Vallejo
Walter Butler	Walt Louie	Scott Silverman	Audra Wells
Susan Caggiano	Karol Lu		

Members Absent:

Catherine Haradon	Jesus Lopez*	Sharlene Joachim*	Gabriel Sanchez (A.S.)
Aileen Huang			

**Attended via Zoom – voting members of the committee unable to attend in-person may join as a guest on zoom but cannot move or vote on action items.*

Others Present:

Luis Andrade	Vicky Seno	Sri Susilowati	Kayli Weatherford
Kristin Lui-Martinez	Howard Stahl		

(Information items are listed numerically; action items are listed alphabetically)

I. Call to Order and Approval of Agenda
The meeting was called to order at 3:06 pm. Motion to approve the agenda with no revisions.
Motion made by: Scott Silverman; **Seconded by:** Jessica Rodriguesz
The motion passed unanimously.

II. Public Comments
None

III. Announcements
Happy Birthday to Jason Beardsley!

IV. Approval of Minutes (October 7, 2026)
Motion to approve the minutes of October 7, 2026 with no revisions.
Motion made by: Bobby Simmons; **Seconded by:** Audra Wells
The motion passed unanimously.

V. Chair's Report
Today we'll be continuing the training activities on reviewing various aspects to course outlines of record. Content on all the past and today's trainings are available in the canvas shell.

VI. Information Items

1. ASCCC Curriculum Committee Training and IDEAA Modules – Redelia Shaw

- Reminder we want to have everyone to complete the trainings to receive all module badges. Please complete the training (and email your badges) to Redelia by October 30, 2026.

2. Universal Design for Learning (UDL) – Redelia Shaw
   - An activity reviewing course outlines. Committee members were split into groups to review CORs.

3. UC/Cal-GETC Updates – Oliva Vallejo
   - UC technical appeals have been submitted. Those typically are reviewed quickly, so we should hear back in the next couple of months. UC will reach out if they need any additional information.

4. Common Course Numbering (CCN) Updates – Susan Caggiano
   - Phase III is still paused. Cal-GETC, UC, and CSUs are beginning to review templates, focusing on the ICAS memo from May which addressed articulating courses at the template level. There are still ongoing conversations regarding template review for articulated major preparation.
   - Future phases will move to focusing on specific disciplines – instead of Phase 1, 2, 3, phases of only ENGL courses, etc. The goal is to release templates in early spring.
   - C-ID review will move toward approval at the template level, as currently CCN changes have to be reviewed separately by C-ID. The plan is future templates will have C-ID pre-approved.
   - Phase I and Phase II templates are currently undergoing further revisions and will require additional changes to be submitted by impacted departments. More information should be released soon.

VII. Action Items

Consent Agenda: Course Deactivations

a. ENGL 30A Beginning Creative Writing
b. ENGL 30B Advanced Creative Writing

Motion to approve the deactivations of ENGL 30A and ENGL 30B.
Motion made by: Audra Wells; **Seconded by:** Dione Hodges
The motion passed unanimously.

Courses

c. COMM C1004 Interpersonal Communication *(formerly COM ST 35)*
   - Changes: SLOs, course objectives, course content

Motion to approve the changes to COMM C1004 with no additional revisions.
Motion made by: Susan Caggiano; **Seconded by:** Scott Silverman
The motion passed unanimously.

d. CS 345 AI-Assisted Cloud Development
   - New Course
   - Distance Education (Fully Online/Hybrid)
   - Prerequisite: CS 320 Cloud Developer

Motion to approve CS 345 with no revisions.
Motion made by: Jason Beardsley; **Seconded by:** Karol Lu
The motion passed unanimously.

Motion to approve distance education for CS 345 with no revisions.
Motion made by: Scott Silverman; **Seconded by:** Dione Hodges
The motion passed unanimously.

Motion to approve the CS 345 prerequisite of CS 320 with no revisions.
Motion made by: Dione Hodges; **Seconded by:** Susan Caggiano
The motion passed unanimously.

e. CS 420 Cloud Portfolio Skills Development
   - New Course
   - Distance Education (Fully Online/Hybrid)

- Prerequisite: CS 405 Cloud Capstone I

Motion to approve CS 420 with no revisions.
Motion made by: Bobby Simmons; **Seconded by:** Dione Hodges
The motion passed unanimously.

Motion to approve distance education for CS 420 with no revisions.
Motion made by: Susan Caggiano; **Seconded by:** Scott Silverman
The motion passed unanimously.

Motion to approve the CS 420 prerequisite of CS 405 with revision to prerequisite worksheet to change the exit/entrance skills mapping to Entrance Skill B = Exit Skill 1.
Motion made by: Karol Lu; **Seconded by:** Bobby Simmons
The motion passed unanimously.

f. ECE 26 CA Preschool/Transitional Kindergarten Foundations 1
   - Changes: course name, course description, SLOs, course objectives, course content, methods of evaluation, textbooks, sample assignments

Motion to approve the changes to ECE 26 with no additional revisions.
Motion made by: Susan Caggiano; **Seconded by:** Bobby Simmons
The motion passed unanimously.

g. ECE 27 CA Preschool/Transitional Kindergarten Foundations 2
   - Changes: course name, SLOs, course objectives, course content, methods of evaluation, textbooks, sample assignments

Motion to approve the changes to ECE 27 with no additional revisions.
Motion made by: Scott Silverman; **Seconded by:** Bobby Simmons
The motion passed unanimously.

h. ENGL 28 Intensive College Writing Skills
   - Changes: course description, SLOs, course objectives, course content, methods of evaluation, textbooks, sample assignments
   - Corequisite: ENGL C1000

Motion to approve the changes to ENGL 28 with no additional revisions.
Motion made by: Jason Beardsley; **Seconded by:** Susan Caggiano
The motion passed unanimously.

Motion to approve the ENGL 28 corequisite of ENGL C1000 with no revisions.
Motion made by: Scott Silverman; **Seconded by:** Susan Caggiano
The motion passed unanimously.

Programs

i. Cloud Computing AS/Certificate of Achievement
   - Changes: Required Courses: add CS 73A and CS 73B, units increased from 15 to 21 units; Total Units: increased from 27 to 33 units; SLO/PLO mapping

Motion to approve the changes to the Cloud Computing AS/Certificate of Achievement with no additional revisions.
Motion made by: Karol Lu; **Seconded by:** Dione Hodges
The motion passed unanimously.

j. Cloud Computing BS
   - Changes: Lower Division Major Coursework: remove CS 9A/CIS 9A, add CS 82D and CS 87A, units increased from 24 to 27 units; Upper Division Major Requirements: remove CS 340, add CS 345 and CS 420, increased units from 33 to 34 units

Motion to approve the changes to the Cloud Computing BS with no additional revisions.
Motion made by: Karol Lu; **Seconded by:** Susan Caggiano
The motion passed unanimously.

k. Changes to degrees, certificates, and program maps as a result of courses considered on this agenda
Motion to approve changes to degrees, certificates, and program maps as a result of courses considered on this agenda.
Motion made by: Bobby Simmons; **Seconded by:** Susan Caggiano
The motion passed unanimously.

VIII. New Business
None

IX. Old Business
None

X. Adjournment
Motion to adjourn the meeting at 5:00 pm.
Motion made by: Bobby Simmons; **Seconded by:** Scott Silverman
The motion passed unanimously.

Santa Monica College
Program of Study
Advanced English as a Second Language Noncredit Certificate of Competency

This Noncredit Certificate of Competency in Advanced ESL assists advanced ESL learners in developing listening, speaking, reading, and writing skills to communicate effectively in situations they encounter at work, school, and in the community. The Noncredit Certificate of Competency in Advanced ESL prepares students to progress on a career path of their choice and/or to undertake degree-applicable or non degree-applicable credit courses.

Program Learning Outcomes:
Communicate effectively in spoken and written English by analyzing, organizing, and presenting information for academic, workplace, and community purposes.

- ESL 905: Provide a clear oral summary of key information from an audio source (e.g., a short lecture, presentation, or conversation).
- ESL 905: Write 2–4 paragraphs for various purposes, such as informing, describing, narrating, summarizing, or expressing an opinion.
- ESL 906: Deliver an oral presentation that effectively compares and contrasts ideas.
- ESL 915: Listen to an extended workplace or academic presentation and summarize the main ideas and key supporting details.
- ESL 915: Prepare and deliver a well-organized oral presentation incorporating research and multimedia support.
- ESL 921: Apply the rules for question and statement intonation patterns to accurately produce sentences with various intonation patterns.
- ESL 922: Produce an oral presentation on a student-generated topic related to cultural differences.
- ESL 927: Compose a paragraph and revise for clarity, coherence and cohesion, and sentence-level grammar. As assessed by: a student-generated paragraph, graded with a rubric.
- ESL 965: Summarize the main ideas and recount important details of a more complex text.
- ESL 965: Write well-organized, correctly formatted multi-paragraph essays to inform, describe, narrate, or persuade.
- ESL 975: Incorporate newly learned academic vocabulary appropriately into original written texts and oral presentations.
- ESL 976: Use high-frequency academic words accurately and idiomatically in speaking and writing.

Analyze information, evaluate evidence, and develop well-supported solutions using appropriate academic research, communication, and collaboration skills.

- ESL NC 905: Collaborate effectively in a team by contributing ideas, actively listening, and coordinating responsibilities to complete complex tasks.
- ESL 906: Research a problem and write an analysis that proposes possible solutions.
- ESL 915: Prepare and deliver a well-organized oral presentation incorporating research and multimedia support.
- ESL 926: Identify errors in student writing and make corrections.
- ESL 927: Compose a paragraph and revise for clarity, coherence and cohesion, and sentence-level grammar. As assessed by: a student-generated paragraph, graded with a rubric.
- ESL 965: Write well-organized, correctly formatted multi-paragraph essays to inform, describe, narrate, or persuade.

Apply effective learning strategies and demonstrate intercultural awareness to communicate successfully in diverse academic, workplace, and community settings.

- ESL 905: Evaluate and choose appropriate study strategies to improve comprehension and communication in a variety of academic and real-world contexts.
- ESL 906: Identify sources of cultural misunderstanding and apply strategies for effective cross-cultural communication.
- ESL 906: Integrate and adapt study strategies to support advanced English use in academic, workplace, and community settings.
- ESL 921: Apply the guidelines for stress in multi-syllabic words to pronounce multi-syllabic words clearly and accurately.
- ESL 922: Objectively interpret American customs, non-verbal cues, and conversational style.
- ESL 922: Identify and use conversational discourse markers with appropriate pronunciation, stress, and intonation.
- ESL 927: Exhibit strong academic behaviors: regular attendance, timeliness, participation in class activities, perseverance, and adherence to the College Honor Code.
- ESL 975: Select and use effective strategies to independently learn, retain, and apply academic vocabulary.
- ESL 976: Apply strategies for learning and retaining new academic vocabulary.

Required Course

ESL 906[DE] English as a Second Language Level 6

Choose one of the following

ESL 905[DE] English as a Second Language Level 5
ESL 915[DE] Advanced Listening and Speaking
ESL 921 Pronunciation: Rhythm and Intonation
ESL 922[DE] Conversation and Culture in the U.S.
ESL 926[DE] Advanced Grammar Workshop
ESL 927[DE] Advanced Grammar and Editing
ESL 965[DE] Advanced Reading and Writing
ESL 975[DE] Advanced ESL Vocabulary
ESL 976[DE] Academic Vocabulary Skills

Santa Monica College
Program of Study
Beginning English as a Second Language Noncredit Certificate of Competency

This Noncredit Certificate of Competency in Beginning ESL assists beginning ESL learners in developing basic listening, speaking, reading, and writing skills to communicate in familiar situations they encounter at work, school, and in the community. The Noncredit Certificate of Competency in Beginning ESL prepares students to progress on a career path of their choice and/or to undertake degree-applicable or non degree-applicable credit courses.

Program Learning Outcomes:
Communicate effectively in spoken English by participating in simple conversations, understanding familiar spoken messages, and using appropriate vocabulary in everyday situations.

- ESL 901: Students will ask and answer simple questions about work-related skills, experience and preferences (e.g. What are your skills? I can drive. I am a hard worker. I like to help people.)
- ESL 902: Engage in simple conversations on familiar topics with a variety of partners.
- ESL 911: Participate in simple conversations on familiar topics with diverse partners using appropriate English.
- ESL 911: Identify and recount key information from listening to passages on familiar topics.
- ESL 971: Identify and describe people, places, activities, and possessions using target vocabulary orally and in writing.

Read and write simple English by identifying main ideas in familiar texts and composing appropriate written responses using basic vocabulary and grammar.

- ESL 901: Students will compose 3-5 simple sentences including simple biographical information (e.g. I am from China, I live in LA.) with limited accuracy.
- ESL 902: Read a simple note and write a short, appropriate reply.
- ESL 961: Identify main ideas and a few key details in short readings on familiar topics.
- ESL 961: Write six to eight connected sentences on a familiar topic.
- ESL 971: Identify and describe people, places, activities, and possessions using target vocabulary orally and in writing.

Apply effective study, workplace, and self-management strategies to support English language learning and academic and workplace success.

- ESL 901: Students will monitor the quality of own work and ask for assistance when needed.
- ESL 902: Identify qualities of an effective employee in the American workplace.
- ESL 902: Use basic study strategies to support English learning.

Required Course

ESL 902[DE] English as a Second Language Level 2

Select one course from the following

ESL 901 English as a Second Language Level 1
ESL 911[DE] Beginning Listening and Speaking
ESL 961[DE] Beginning Reading and Writing
ESL 971[DE] Beginning ESL Vocabulary

Santa Monica College
Program of Study
Geospatial Technology Certificate of Achievement

Geospatial technologies, including Geographic Information Systems (GIS), Remote Sensing (RS), Global Positioning System (GPS) and Digital Cartography, are used to capture, store, manage, analyze and visualize geospatial information related to locations on Earth's surface. These technologies are used to combine various types of geospatial information in a digital environment and are widely used in our daily life, government agencies, in almost every industry. Through this program students will develop an understanding of the theoretical underpinnings of geospatial technologies and gain the skills needed to construct high-quality applications.

Program Learning Outcomes:
Technical Proficiency & Data Management: Demonstrate proficiency in spatial data acquisition, management, processing, and modeling using industry-standard geospatial technologies and remote sensing tools.

- GEOG 20: Students will differentiate between vector, raster, and object-oriented GIS data structures, and execute various methods of data acquisition from online geospatial data portals.
- GEOG 20: Demonstrate various methods of data acquisition, including Global Positioning Systems (GPS).
- GEOG 23: Students will execute various methods of data acquisition from online geospatial data portals.
- GEOG 23: Students will distinguish between single and multi-layer statistical operations including classification, coordination, and modeling analysis.
- GEOG 23: Students will complete a "Model Builder" to be used in siting new solar sites. Spatial Analysis will include slope and aspect maps, neighborhood and zone analysis.
- GEOG 23: Students will explain and execute various geoprocessing functions used in GIS analysis, such spatial queries, joining layers, and intersecting features.
- GEOG 23: Students will explain and execute various geospatial analysis methods, such as suitability analysis, hotshot analysis, spatial pattern analysis and terrain analysis.
- GEOG 23: Students will perform various methods of data acquisition, including Global Positioning Systems (GPS) as well as the World Wide Web. The add-on modules extend the analytical capabilities of ArcView and allow input of map features and conversion of feature themes from raster to vector
- GEOG 24: Using satellite imagery and appropriate software, students will perform a supervised classification identifying spectrally similar areas on an image by identifying ‘training’ sites of known targets and then extrapolating those spectral signatures to other areas of unknown targets.
- GEOG 24: Students will access, interpret and use maps from a variety of print and electronic media.
- GEOG 25: Student will understand new data acquisition technologies for map making and will be able to appropriately use data from various sources.
- GEOG 25: Student will understand new data acquisition technologies for map making and will be able to appropriately use data from various sources.
- GEOG 26: Describe commonly used remote sensing sensors and image acquisition methods.
- GEOG 26: Apply basic digital image processing and interpretation methods to extract useful information from remote sensing images
- GEOG 26: Students will implement basic digital image processing and interpretation methods to extract useful information from remote sensing images.
- GIS 20: Students will differentiate between vector, raster, and object-oriented GIS data structures, and execute various methods of data acquisition from online geospatial data portals.
- GIS 23: Students will execute various methods of data acquisition from online geospatial data portals.
- GIS 23: Students will explain and execute various geoprocessing functions used in GIS analysis, such spatial queries, joining layers, and intersecting features.
- GIS 23: Students will explain and execute various geospatial analysis methods, such as suitability analysis, hotshot analysis, spatial pattern analysis and terrain analysis.
- GIS 25: Student will understand new data acquisition technologies for map making and will be able to appropriately use data from various sources.
- GIS 26: Describe commonly used remote sensing sensors and image acquisition methods.
- GIS 26: Apply basic digital image processing and interpretation methods to extract useful information from remote sensing images
- GIS 27: Student will be able to appropriately choose, process and use various GIS data sources
- GIS 27: Student will be able to create their own geospatial data and metadata, and manage them along with the data from other sources in a geospatial database.
- GIS 27: Student will be able to apply appropriate GIS tools in the interpretation and analysis of geographical data

Cartographic Design & Multidisciplinary Spatial Analysis: Demonstrate the ability to apply geospatial technologies and cartographic principles to analyze spatial relationships, interpret geographical data, and solve real-world problems across diverse disciplines (such as business, law enforcement, disaster management, and environmental science).

- GEOG 20: Students will interpret different types of spatial data and maps in terms of their scale, projection, and coordinate systems.
- GEOG 23: Students will explain and execute various geospatial analysis methods, such as suitability analysis, hotshot analysis, spatial pattern analysis and terrain analysis.
- GEOG 24: Produce a thematic map using cartographic principles of design, including appropriate symbolization and generalization
- GEOG 24: Students will access, interpret and use maps from a variety of print and electronic media.
- GEOG 25: Student will be able to produce a thematic map using cartographic principles of design, including appropriate symbolization and generalization.
- GEOG 25: Students will be able to access, interpret and use maps from a variety of print and electronic media, including online maps.
- GEOG 26: Describe the application of remote sensing in various fields, including forest management, water resources, agriculture, global environmental science.
- GIS 19: Student will be able to identify the use of GIS in Business.
- GIS 20: Students will interpret different types of spatial data and maps in terms of their scale, projection, and coordinate systems.
- GIS 21: Student will be able to explain how GIS can be used to solve real-world problem in law enforcement.
- GIS 22: Student will be able to explain how GIS can be used in different phases of disaster management.
- GIS 23: Students will explain and execute various geoprocessing functions used in GIS analysis, such spatial queries, joining layers, and intersecting features.
- GIS 23: Students will explain and execute various geospatial analysis methods, such as suitability analysis, hotshot analysis, spatial pattern analysis and terrain analysis.
- GIS 25: Student will be able to produce a thematic map using cartographic principles of design, including appropriate symbolization and generalization.
- GIS 27: Student will be able to apply geospatial thinking to develop location-based questions from real world problems
- GIS 27: Student will be able to apply appropriate GIS tools in the interpretation and analysis of geographical data

Applied Project Execution & Communication: Demonstrate the capacity to independently design, manage, and execute an original geospatial research project, and effectively communicate the methodologies, outcomes, and conclusions graphically, orally, and in writing.

- ERTHSC 88C: Conduct independent research or study of well-defined topic in the discipline of the independent study.
- ERTHSC 88C: Describe project and discuss any conclusions drawn or other project outcomes.
- GEOG 20: Produce an independent GIS Project using GIS techniques.
- GEOG 20: Students will implement a GIS mapping project using basic geoprocessing functions and spatial analysis tools, and various mapping techniques.
- GEOG 26: Students will implement a remote sensing project in various fields, including forest management, water resources, agriculture, global environmental science.
- GEOG 26: Describe the application of remote sensing in various fields, including forest management, water resources, agriculture, global environmental science.
- GIS 19: Student will be able to implement an independent GIS Project to solve a real-world problem in Business.
- GIS 20: Students will implement a GIS mapping project using basic geoprocessing functions and spatial analysis tools, and various mapping techniques.
- GIS 21: Student will be able to independently implement a GIS project in law enforcement planning.
- GIS 22: Student will be able to independently implement a GIS project of disaster management in an area/region of interest.
- GIS 26: Describe the application of remote sensing in various fields, including forest management, water resources, agriculture, global environmental science.
- GIS 27: Student will be able to apply geospatial thinking to develop location-based questions from real world problems
- GIS 27: Student will demonstrate knowledge of the basic steps to establish and manage a GIS project
- GIS 27: Student will be able to present the outcomes of a GIS project with appropriate map designs, graphics, texts and web-based interactions

Required Courses	**Units: 15.0**
GEOG 20[DE] Introduction to Geographic Information Systems (same as: GIS 20)	3.0
GEOG 23[DE] Intermediate Geographic Information Systems (same as: GIS 23)	3.0
GEOG 25[DE] Introduction to Cartography (same as: GIS 25)	3.0
GEOG 26[DE] Introduction to Remote Sensing (same as GIS 26)	3.0

GIS 27[DE] Applications in Geographic Information Systems	3.0

Application courses (choose one from the course block)	**Units: 3.0-4.0**
ENVRN 7[DE] Introduction to Environmental Studies (same as: GEOG 7)	3.0
ERTHSC 88C Independent Studies in Earth Science	3.0
GEOG 1[DE] Physical Geography	3.0
GEOG 2[DE] Introduction To Human Geography	3.0
GEOG 3 Weather and Climate	3.0
GEOG 5[DE] Physical Geography with Lab	4.0
GEOG 8[DE] Introduction to Urban Studies (same as: URBAN 8)	3.0
GEOG 10 Living in a Hazardous Environment	3.0
GEOG 11[DE] World Geography: Introduction to Global Studies (same as: GLOBAL 11)	3.0
GEOG 14[DE] Geography of California	3.0
GIS 19 Geographic Information Systems for Business	3.0
GIS 21 Geographic Information Systems for Law Enforcement	3.0
GIS 22 Geographic Information Systems for Disaster Management	3.0

Total: 18.0-19.0

Santa Monica College
Program of Study
Intermediate English as a Second Language Noncredit Certificate of Competency

This Noncredit Certificate of Competency in Intermediate ESL assists intermediate ESL learners in developing basic listening, speaking, reading, and writing skills to communicate in familiar situations they encounter at work, school, and in the community. The Noncredit Certificate of Competency in Intermediate ESL prepares students to progress on a career path of their choice and/or to undertake degree-applicable or non degree-applicable credit courses.

Program Learning Outcomes:

Interpret spoken English and communicate ideas effectively through oral summaries and organized presentations.

- ESL 903: Provide an oral summary of factual information about a familiar topic.
- ESL 904: Deliver a clear spoken presentation that describes a problem and suggests possible solutions.
- ESL 913: Determine the main idea and supporting details in informational listening passages.
- ESL 913: Deliver an organized oral presentation on a familiar topic, incorporating simple guided research to support key points.
- ESL 973: Use newly learned vocabulary in conversations and short oral presentations, choosing words appropriately and pronouncing them clearly enough to be understood.

Interpret level-appropriate texts and create organized written communication by identifying main ideas and supporting details and composing coherent paragraphs using appropriate vocabulary and transitions.

- ESL 903: Write a short paragraph describing an activity or event, including a few supporting details.
- ESL 904: Write an organized paragraph using transition words to connect ideas and demonstrate logical order.
- ESL 963: Read level-appropriate texts and identify the main idea and key supporting details.
- ESL 963: Write a short paragraph with a main idea and supporting details.
- ESL 973: Compose a written text on a topic covered in class that incorporates appropriate target vocabulary.

Apply effective study strategies, evaluate feedback, and develop action plans to achieve academic, personal, and workplace goals.

- ESL 903: Apply constructive criticism to improve job/school performance.
- ESL 903: Apply basic study strategies to support English learning.
- ESL 904: Create a plan of action, orally or in writing, to achieve short- and long-term personal and work-related goals.
- ESL 904: Apply study strategies to organize information and improve accuracy and fluency in English.

Required Course

ESL 904[DE] English as a Second Language Level 4

Choose one of the following:

ESL 903[DE] English as a Second Language Level 3
ESL 913[DE] Intermediate Listening and Speaking
ESL 963[DE] Intermediate Reading and Writing
ESL 973[DE] Intermediate ESL Vocabulary

Santa Monica College
Program of Study
Low Advanced English as a Second Language Noncredit Certificate of Competency

This Noncredit Certificate of Competency in Low Advanced ESL assists low advanced ESL learners in developing effective listening, speaking, reading, and writing skills to communicate in situations they encounter at work, school, and in the community. The Noncredit Certificate of Competency in Low Advanced ESL prepares students to progress on a career path of their choice and/or to undertake degree-applicable or non degree-applicable credit courses.

Program Learning Outcomes:
Communicate effectively in spoken and written English by analyzing, summarizing, and presenting information for academic, workplace, and everyday purposes.
ESL 905: Provide a clear oral summary of key information from an audio source (e.g., a short lecture, presentation, or conversation).
ESL 905: Write 2–4 paragraphs for various purposes, such as informing, describing, narrating, summarizing, or expressing an opinion.
ESL 915: Listen to an extended workplace or academic presentation and summarize the main ideas and key supporting details.
ESL 915: Prepare and deliver a well-organized oral presentation incorporating research and multimedia support.
ESL 926: Identify errors in student writing and make corrections.
ESL 927: Compose a paragraph and revise for clarity, coherence and cohesion, and sentence-level grammar. As assessed by: a student-generated paragraph, graded with a rubric.
ESL 965: Summarize the main ideas and recount important details of a more complex text.
ESL 965: Write well-organized, correctly formatted multi-paragraph essays to inform, describe, narrate, or persuade.
ESL 975: Incorporate newly learned academic vocabulary appropriately into original written texts and oral presentations.

Collaborate successfully with others by contributing ideas, communicating clearly, and demonstrating effective interpersonal and presentation skills in academic and workplace settings.
- ESL 905: Collaborate effectively in a team by contributing ideas, actively listening, and coordinating responsibilities to complete complex tasks.
- ESL 915: Prepare and deliver a well-organized oral presentation incorporating research and multimedia support.
- ESL 922: Identify and use conversational discourse markers with appropriate pronunciation, stress, and intonation.

Apply independent learning strategies, including critical thinking, revision, and academic vocabulary development, to improve English proficiency and achieve academic, personal, and career goals.
- ESL 905: Evaluate and choose appropriate study strategies to improve comprehension and communication in a variety of academic and real-world contexts.
- ESL 926: Identify errors in student writing and make corrections.
- ESL 927: Compose a paragraph and revise for clarity, coherence and cohesion, and sentence-level grammar. As assessed by: a student-generated paragraph, graded with a rubric.
- ESL 975: Select and use effective strategies to independently learn, retain, and apply academic vocabulary.
- ESL 976: Apply strategies for learning and retaining new academic vocabulary.

Required Course

ESL 905[DE] English as a Second Language Level 5

Choose one of the following:

ESL 915[DE] Advanced Listening and Speaking
ESL 922[DE] Conversation and Culture in the U.S.
ESL 926[DE] Advanced Grammar Workshop
ESL 927[DE] Advanced Grammar and Editing
ESL 965[DE] Advanced Reading and Writing
ESL 975[DE] Advanced ESL Vocabulary
ESL 976[DE] Academic Vocabulary Skills

Santa Monica College
Program of Study
Low Intermediate English as a Second Language Noncredit Certificate of Competency

This Noncredit Certificate of Competency in Low Intermediate ESL assists Low Intermediate ESL learners in developing basic listening, speaking, reading, and writing skills to communicate in familiar situations they encounter at work, school, and in the community. The Noncredit Certificate of Competency in Low Intermediate ESL prepares students to progress on a career path of their choice and/or to undertake degree-applicable or non degree-applicable credit courses.

Program Learning Outcomes:
Interpret and analyze spoken English by identifying main ideas and supporting details in informational passages and by producing organized oral summaries and presentations on familiar topics using appropriate vocabulary and comprehensible pronunciation.

- ESL 903: Provide an oral summary of factual information about a familiar topic.
- ESL 913: Determine the main idea and supporting details in informational listening passages.
- ESL 913: Deliver an organized oral presentation on a familiar topic, incorporating simple guided research to support key points.
- ESL 973: Use newly learned vocabulary in conversations and short oral presentations, choosing words appropriately and pronouncing them clearly enough to be understood.

Interpret level-appropriate written texts by identifying main ideas and supporting details and create written communication by producing coherent short paragraphs and structured responses using appropriate vocabulary and basic grammatical structures.

- ESL 903: Write a short paragraph describing an activity or event, including a few supporting details.
- ESL 963: Read level-appropriate texts and identify the main idea and key supporting details.
- ESL 963: Write a short paragraph with a main idea and supporting details.
- ESL 973: Compose a written text on a topic covered in class that incorporates appropriate target vocabulary.

Evaluate feedback and constructive criticism and apply effective study strategies to improve academic, workplace, and English language learning performance.

- ESL 903: Apply constructive criticism to improve job/school performance.
- ESL 903: Apply basic study strategies to support English learning.

Required Course

ESL 903[DE] English as a Second Language Level 3

Choose one of the following:

ESL 913[DE] Intermediate Listening and Speaking
ESL 963[DE] Intermediate Reading and Writing
ESL 973[DE] Intermediate ESL Vocabulary

Santa Monica College
Program of Study
Transition to College and Career Noncredit Certificate of Completion

The Transition to College and Career Certificate is designed to assist students in transitioning from noncredit to credit courses, with the goal of improving literacy and preparing for a career and general skills for the workforce. These two courses will focus on college readiness, educational planning, the career exploration process and how to navigate the workforce and become gainfully employed. The Certificate of Completion is granted after successful completion of COUNS 901 and COUNS 902.

Program Learning Outcomes:
Demonstrate knowledge of the SMC matriculation process, student support services and resources and prepare an educational plan based on short and long term goals.

- COUNS 901: Student will demonstrate knowledge of the SMC matriculation process, including Orientation and assessment.
- COUNS 901: Student will develop an educational plan based on short and intermediate term goals identified in the course.
- COUNS 901: Student will be able to identify the location of at least three SMC support services and/or community resources appropriate to his/her individual needs.

Identify a potential career and associated job skills through career and interest inventories, create a career action plan, resume, cover letter and job application, and utilize job online job search resources.

- COUNS 902: Through career and interest assessments, students will be able to identify a career and specific job skills.
- COUNS 902: Students will be able to create a career action plan based on short and long term professional goals identified in class.
- COUNS 902: Students will be able to utilize current online job search resources.
- COUNS 902: Students will be able to complete a job application and create a resume and cover letter.

Required Courses

COUNS 901[DE] Transition to College
COUNS 902[DE] Career and Workforce Readiness

New Course: BIOLOGY 1A, Cells, Molecular Biology and Genetics

Units:	5.00
Total Instructional Hours (usually 18 per unit):	126.00
Hours per week (full semester equivalent) in Lecture:	4.00
In-Class Lab:	3.00
Arranged:	0.00
Outside-of-Class Hours:	144.00

Transferability:	Transfers to CSU, UC (pending)
Cal-GETC Area:	5B: Biological Science (pending), 5C: Laboratory (pending)
SMC GE Area:	5: Natural Sciences
Degree Applicability:	Credit – Degree Applicable
Advisory(s):	ENGL C1000
Prerequisite(s):	CHEM 11
Proposed Start:	Fall 2028
TOP/SAM Code:	040100 - Biology, General / E – Non-Occupational
Grading:	Letter Grade or P/NP
Repeatability:	No
Library:	Library has adequate materials to support course
Minimum Qualification:	Biological Sciences
Program Impact:	Forthcoming degree or certificate: Biology

Rationale
This course is one of three for the fulfillment of the Biology Major, as well as for the fulfillment of transfer requirements to 4-year institutions.

I. **Catalog Description**
This lab course is one of three in the Biology Majors series. The course provides an introduction to foundational concepts, such as the scientific method, basic chemistry and the properties of water, cell structure and function, membrane structure and transport, cell cycles, life cycles, energetics, developmental biology and cell communication. Additionally, major topics in molecular biology include DNA structure, production and recombination, chromosomes, gene expression and operons, protein structure and function. Major topics in genetics, such as bacterial and viral genetic materials, Mendelian genetics & heredity, genetic disorders and diseases will be covered, as well as recent advances in molecular biology and genetics. This course is meant to partially fulfill the requirements of the Biology major, along with Biology 1B and 1L. *Students may take this course — or Biology 1B — as the prerequisite for Biology 1L. *With consideration of the existing advisory and prerequisites for this course (Reading & Composition and General Chemistry, respectively), students may take Biology 1A or 1B in either order. *Once either Biology 1A or 1B has been successfully completed, Biology 1L may be taken on its own or concurrently with the remaining course in the majors series (Biology 1A or 1B).

II. **Examples of Appropriate Text or Other Required Reading:**
(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)
1. Campbell Biology, 12th, Urry, L. A., Cain, M. L., Wasserman, S. A., Minorsky, P. V., & Orr, R. B. , Pearson © 2022, ISBN: 9780135188743
2. Investigating Biology Laboratory Manual, 10th, Morgan, Judith Giles, and M. Eloise Brown Carter, Pearson © 2021, ISBN: 9780137538256

III. **Course Objectives**
Upon completion of this course, the student will be able to:
1. Apply the scientific method and distinguish between hypothesis-driven science and pseudoscience.
2. Apply the concepts of cell cycles, life cycles and energetics to evaluate biological systems.
3. Identify and critique the properties and functions of water, macromolecules, and energy transformation mechanisms within biological systems.
4. Demonstrate modern laboratory techniques while examining genetic information, cellular reproduction, and the evolutionary origins of eukaryotic complexity (Endosymbiosis).
5. Analyze and critique genetic information for pedigrees, inheritance and disease markers.

6. Compare and contrast the structure and function of membranes, organelles and cell walls in order to hypothesize and critique the implications of each of these for life on Earth.

IV. **Methods of Presentation:**
Distance Education, Lecture and Discussion, Lab, Observation and Demonstration, Discussion, Critique, Projects, Experiments, Visiting Lecturers, Group Work

V. **Course Content**

% of Course	Topic
25.000%	Protein structure and function Bacterial and viral genetic materials Mendelian genetics & hereditary Genetic disorders and diseases Advances in molecular biology and genetics
25.000%	DNA: structure, replication, transcription & translation DNA: recombination, mutation and repair RNA: production and processing Chromosomal: structure, function and variation Gene expression & operons
25.000%	Cell cycle, including mitosis & meiosis Life cycles Cell energetics – chemoautotrophic respiration, glycolysis, respiration and photosynthesis Developmental biology – e.g. towards multicellularity, embryology Cell communication
25.000%	Scientific Process Basic Chem and properties of water Macromolecules Cell structure and function Membrane structure and transport
100.000%	Total

VI. **Methods of Evaluation**

% of Course	Topic
10%	Class Participation: Points will be awarded for active discussion and participation in class activities.
50%	Exams and Quizzes: Multiple, regularly spaced quizzes and 3-4 exams will be administered to assess learning.
20%	Group Projects: 1-3 faculty-guided group projects culminating in written and/or oral presentation.
20%	Other Assessments: Multiple, low-stakes assignments including brief oral presentations to the class, writing assignments, and group discussions.
100%	Total

VII. **Sample Assignments:**
Problem solving: Here are two sets of genetics problems. The scenarios emphasize applications of concepts in sex-linked inheritance and synthesis as discussed in class. Work individually to determine the solutions and submit them for credit to the dropbox.

Mastery of Terminology and Concepts: This is a three-part assignment. (a) define the following terms: mitosis and meiosis, (b) describe the difference in outcomes at the cellular and genetic levels, and (c) outline the function of each process as they pertain to unicellular & multicellular organisms. Submit your work to the dropbox.
Comparison of Primary and Secondary Scientific Sources: For any biological topic covered in class during this unit, use online databases to find three articles from the primary scientific literature and one secondary source. Write summaries of these four articles in your own words, and provide a comparison of the features of primary and secondary sources.

VIII. **Student Learning Outcomes:**

1. Describe the "Central Dogma" of biology by predicting an amino acid sequence from a given DNA template.
2. Explain the molecular basis of genetic disorders, and predict the likelihood of trait inheritance and genetic disorders.
3. Distinguish the structural differences and life cycles between prokaryotic and eukaryotic cells.
4. Demonstrate proficiency in light microscopy and current laboratory techniques in cell and molecular biological research.

BIOL 1A Distance Education Application

☑ Online/Classroom Hybrid (not a delivery option when campus is closed)

1a. Instructor - Student Interaction:
Students will interact with the instructor on a weekly basis through email, discussion board, virtual office hours and evaluation/feedback on assignments and other assessments. Because this is a hybrid course, students will also interact with the instructor during lab sessions.

1b. Student - Student Interaction:
Students will interact with each other on discussion boards, joint projects and/or peer evaluations. Because this is a hybrid course, students will also interact with each other during lab sessions and group projects.

1c. Student - Content Interaction:
Students will receive weekly course materials in the form of lecture videos, slide decks, discussion board prompts. Additionally, faculty will provide opportunities for in-person online discussions with consideration for accessibility for all students. Students will also be prompted to complete assignments with thorough recorded and/or written instructions. Additional reading assignments may be presented. Because this is a hybrid course, students will have the opportunity to do in-person assignments and projects.

1d. Distance Ed Interactions:

Online class activities that promote class interaction and engagement	Brief Description	Percentage of Online Course Hours
Written assignments	Students will be given written assignments that will be submitted to established dropboxes.	10.00%
Threaded Discussions	Students will be asked to respond to questions about the course material, and to each other in a threaded discussion.	10.00%
Online Lecture	Lectures will be presented online.	80.00%

2. Organization of Content:
Content will be organized in the online teaching platform, through weekly modules with recommended completion dates and/or due dates in the course calendar. Some assignments may be provided through various third party aquaculture resources.

3. Assessments:

% of grade	Activity	Assessment Method
20.00%	Lab Reports and assignments	Lab reports and assignments, which represent 25% of the overall grade will be completed entirely in-person.

20.00%	Exams	20% of the online portion of the course will be assessed through exams (not including the final exam). This represents a portion of the overall student assessment for the course, including the in-person portion.
10.00%	Participation	Participation will be 12.5% of the online portion of the course. This represents half of the overall participation assessment for the whole course, including in-person.
50.00%	Quizzes	25 percent of the online assessment will be quizzes. This represents 2/3 of the entire assessment by quiz, including the in-person portion of the course.

4. Instructor's Technical Qualifications:
In addition to a Master's degree in biology or a related field, expertise in teaching cell and molecular biology, and or genetics.

5. Student Support Services:
NA

6. Accessibility Requirements:
All required accommodations will be provided, as necessary, by the instructor and the SMC Center for Students with Disabilities.

7. Representative Online Lesson or Activity:
Present a nuanced discussion on the evaluation and analysis of mechanisms of regulations of the cell cycle. This activity can be completed through a specified discussion board, live online discussion, or video production. This assignment can also be submitted as a paper, for which faculty and/or student peer feedback can be provided in the online teaching platform submission feature.

Prerequisite Checklist and Worksheet: BIOL 1L
Prerequisite: CHEM 11
Other prerequisites, corequisites, and advisories also required for this course:
ENGL C1000 (Advisory)

SECTION 1 - CONTENT REVIEW: If any criterion is not met, the prerequisite will be disallowed.

Criterion	Met	Not Met
1. Faculty with appropriate expertise have been involved in the determination of the prerequisite, corequisite or advisory.	**X**	
2. The department in which the course is (will be) taught has considered course objectives in accordance with accreditation standards.	**X**	
3. Selection of this prerequisite, corequisite or advisory is based on tests, the type and number of examinations, and grading criteria.	**X**	
4. Selection of this prerequisite, corequisite or advisory is based on a detailed course syllabus and outline of record, related instructional materials and course format.	**X**	
5. The body of knowledge and/or skills which are necessary for success before and/or concurrent with enrollment have been specified in writing.	**X**	
6. The course materials presented in this prerequisite or corequisite have been reviewed and determined to teach knowledge or skills needed for success in the course requiring this prerequisite.	**X**	
7. The body of knowledge and/or skills necessary for success in the course have been matched with the knowledge and skills developed by the prerequisite, corequisite or advisory.	**X**	
8. The body of knowledge and/or skills taught in the prerequisite are not an instructional unit of the course requiring the prerequisite.	**X**	
9. Written documentation that steps 1 to 8 above have been taken is readily available in departmental files.	**X**	

SECTION II - ADDITIONAL LEVEL OF SCRUTINY:

___ Type 1: Standard Prerequisite (required prerequisite at UC or CSU)
Identify three UC or CSU campuses that offer the equivalent course with the equivalent prerequisite.
List schools here:
Complete the Prerequisite Worksheet

___ Type 2: Sequential within and across disciplines (e.g., Physics 7, 8, 9, …)
Complete the Prerequisite Worksheet

___ Type 3: Course in communication or computational skills as prerequisite for course other than another skills course (e.g., English 1 prerequisite for Anatomy 1)
Complete the Prerequisite Worksheet
Complete Data Analysis

X Type 4: Program prerequisites
Prerequisite must be required for at least one of the courses in the program. Explain: A fundamental understanding of Chemistry is required to learn the biochemical pathways discussed in this course.

___ Type 5: Health and Safety
Students who lack the prerequisite might endanger themselves, other students or staff. Explain:

___ Type 6: Recency and other measures of readiness (miscellaneous)
Data must be collected according to sound research principles in order to justify such prerequisites.
Complete the Prerequisite Worksheet

ENTRANCE SKILLS FOR **(BIOL 1A)**
(What the student needs to be able to do or understand BEFORE entering the course in order to be successful)

A)	Ability to understand and solve scientific problems.
B)	Ability to follow logical procedures
C)	Describe the differences among macromolecules, including organic and inorganic compounds
D)	Ability to complete basic chemistry lab techniques
E)	Ability to distinguish among the types of chemical bonds and ionic affinities
F)	Ability to objectively evaluate a data set and draw appropriate conclusions based on those data.
G)	Ability to relate theories in Introductory Chemistry to real-world observations

EXIT SKILLS (objectives) FOR **(CHEM 11)**

(What the student has the demonstrated ability to do or understand AFTER successful completion of this course)

1.	The student will demonstrate the ability to solve scientific problems by following logical procedures based on well-established scientific principles.
2.	The student will follow written procedures used in the general chemistry laboratory accurately and safely.
3.	Describe key differences between inorganic and organic biological molecules
4.	When completing a lab report, the student will correctly apply the scientific method by making reasonable estimates of experimental uncertainties and drawing appropriate conclusions based on the gathered data and scientific principles.
5.	The student will be able to relate microscopic theories to macroscopic observations specifically using the chemical principles developed in Introductory Chemistry.

	ENTRANCE SKILLS FOR (BIOL 1A)								
EXIT SKILLS FOR (CHEM 11)		A	B	C	D	E	F	G	H
	1	x	x	x	X				
	2	x	x	x					
	3			x	x			x	
	4	x	x	x		x	x	x	
	5	x		x		x	x	x	
	6								
	7								
	8								

Advisory Checklist and Worksheet: BIOL 1A
Proposed Advisory: English C1000

SECTION 1 - CONTENT REVIEW:

Criterion	N/A	Yes	No
1. Faculty with appropriate expertise have been involved in the determination of the advisory.		**X**	
2. The department in which the course is (will be) taught has considered course objectives in accordance with accreditation standards.		**X**	
3. Selection of this advisory is based on tests, the type and number of examinations, and grading criteria.		**X**	
4. Selection of this advisory is based on a detailed course syllabus and outline of record, related instructional materials and course format.		**X**	
5. The body of knowledge and/or skills which are recommended for success before enrollment have been specified in writing (see below).		**X**	
6. The course materials presented in this advisory have been reviewed and determined to teach knowledge or skills recommended for success in the course requiring this advisory.		**X**	
7. The body of knowledge and/or skills recommended for success in this course have been matched with the knowledge and skills developed by the advisory course.		**X**	
8. The body of knowledge and/or skills taught in the advisor are not an instructional unit of this course.		**X**	
9. Written documentation that steps 1 to 8 above have been taken is readily available in departmental files.		**X**	

ENTRANCE SKILLS RECOMMENDED FOR SUCCESS IN: **BIOL 1A**
(It is recommended that the student to be able to do or understand the following BEFORE entering the course)

A)	Ability to read complex, college-level English essays
B)	Ability to comprehend college-level written and spoken English
C)	Ability to respond to college-level prompts in English, using either written or oral communication
D)	Ability to successfully perform literature searches using library resources
E)	Ability to write a college-level research paper in English, using appropriate citation formatting.

EXIT SKILLS (objectives) FROM: **ENGL C1000**
(What the student has the demonstrated ability to do or understand AFTER successful completion of this course)

1.	The student will demonstrate the ability to read, comprehend, and analyze college-level writing and respond with thesis-driven analytic essays, scored according to a rubric for appropriate and adequate development and clarity of language and critical thinking.
2.	After defining a topic and using any combination of library, web-based, and/or field research, the student will write a research paper that appropriately uses carefully evaluated and well-documented research material to support a clearly articulated thesis

	ENTRANCE SKILLS FOR: **BIOL 1A**								
EXIT SKILLS From: **ENGL C1000**		A	B	C	D	E	F	G	H
	1	X	X	X					
	2				X	X			
	3								
	4								
	5								
	6								
	7								
	8								

New Course: BIOLOGY 1B, Introduction to Biological Diversity, Ecology and Evolution

Units:	5.00
Total Instructional Hours (usually 18 per unit):	126.00
Hours per week (full semester equivalent) in Lecture:	4.00
In-Class Lab:	3.00
Arranged:	0.00
Outside-of-Class Hours:	144.00

Transferability:	Transfers to CSU, UC (pending)
Cal-GETC Area:	5B: Biological Science (pending), 5C: Laboratory (pending)
SMC GE Area:	5: Natural Sciences, 7: Global Citizenship
Degree Applicability:	Credit – Degree Applicable
Advisory(s):	ENGL C1000
Proposed Start:	Fall 2028
TOP/SAM Code:	040100 - Biology, General / E – Non-Occupational
Grading:	Letter Grade or P/NP
Repeatability:	No
Library:	Library has adequate materials to support course
Minimum Qualification:	Biological Sciences
Program Impact:	Forthcoming degree or certificate: Biology

Rationale
This course is one of three for the fulfillment of the Biology Major, as well as for the fulfillment of transfer requirements to 4-year institutions.

I. **Catalog Description**
This lab course is one of three in the Biology Majors series. The course focuses on three major themes in biology: structure and function of organismic diversity, principles of ecology and environmental science, and evolution. Topics to be explored include the diversity, anatomy and physiology of organisms across a wide range of taxa, climate, resource availability, ecosystem and population dynamics, island biogeography, mechanisms of evolution, variation of evolutionary patterns, phylogeny and cladistic analysis. This course is meant to partially fulfill the requirements of the Biology Major, along with Biology 1A and 1L. *Students may take this course — or Biology 1A — as the prerequisite for Biology 1L. *With consideration of the existing advisory and prerequisite for Biology 1A (Reading & Composition and General Chemistry, respectively), students may take Biology 1A or 1B in either order. *Once either Biology 1A or 1B has been successfully completed, Biology 1L may be taken on its own or concurrently with the remaining course in the majors series (Biology 1A or 1B).

II. **Examples of Appropriate Text or Other Required Reading:**
(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)
1. Campbell Biology, 12th, Urry, L. A., Cain, M. L., Wasserman, S. A., Minorsky, P. V., & Orr, R. B. , Pearson © 2022, ISBN: 9780135188743
2. Investigating Biology Laboratory Manual, 10th, Morgan, Judith Giles, and M. Eloise Brown Carter, Pearson © 2021, ISBN: 9780137538256

III. **Course Objectives**
Upon completion of this course, the student will be able to:
1. Assess the structural and functional diversity across the domains of life, from prokaryotes to complex multicellular eukaryotes, using evolution as the unifying theme.
2. Compare and contrast the physiological strategies used in organisms to manage resource uptake, gas exchange, and environmental stressors.
3. Compare the principles of population growth, community interactions, and biogeography that shape ecosystem stability.
4. Critique the impact of human activity on global biomes and interpret mathematical models used for sustainable resource management.
5. Demonstrate an understanding of the prevailing climate patterns on Earth, and attribute those patterns to the global distribution of biomes.
6. Describe the patterns and influences on the distribution of biodiversity on Earth.

7. Hypothesize on the origins and evolution of individual taxa, with special consideration for selective pressures, vicariance and other influences on biogeography and speciation.
8. Deconstruct the function of human organ systems and predict how they work together to maintain homeostasis in the context of normal and high-stress environmental conditions.

IV. **Methods of Presentation:**
Distance Education, Field Experience, Lecture and Discussion, Lab, Observation and Demonstration, Discussion, Critique, Projects, Experiments, Field Trips, Visiting Lecturers, Group Work

V. **Course Content**

% of Course	Topic
33.400%	**Unit 1** Structure and function of organismic Diversity Prokaryotes Endosymbiotic hypothesis Protists Plants Fungi Animals Anatomy & organ systems Physiology Osmoregulation Thermoregulation Gas exchange Endocrine & hormone systems Resource uptake
33.300%	**Unit 2** Principles of Ecology and Environmental Science Climate and weather Human impacts Species distributions Biomes, Ecosystems and Communities Population dynamics Island biogeography Resource availability, Cycling and Carrying Capacity Maximum sustainable yield
33.300%	**Unit 3** Scientific process Evolution History of Evolutionary Thought Mechanisms of Evolution Variation of Evolutionary Patterns Phylogeny & Cladistic Analysis
100.000%	Total

VI. **Methods of Evaluation**

% of Course	Topic
25%	Exams and Quizzes
25%	Class Participation: In-class activities.
20%	Class Work

30%	Group Projects
100%	Total

VII. **Sample Assignments:**

Research Project Design: Working in small groups, this is the first step to completing an original research project of your own design. Examine recent (within 5 years) primary research articles on your topic. Each member of your group must submit a summary of one article. Combine the information from your sources, develop a hypothesis and write a proposal for an experiment. Include in your proposal background that justifies your hypothesis, detailed materials required, and the methods to be utilized to test your hypothesis.

Data Analysis: After performing the assigned field experiment and recording the class data, use statistical methods to analyze these data. Formulate figures and tables (with captions properly located) to effectively represent and summarize the data. Write an accompanying narrative that emulates the format of a results section in a peer-reviewed journal publication.

Data Interpretation: Critique the results of your experiment and compare them to existing knowledge in the field, determine whether your original hypothesis was supported or refuted, and suggest the direction of future experiments. Using the format of a scientific journal article, Write a discussion section covering the data interpretation following the format of a discussion section in a peer-reviewed scientific journal article.

VIII. **Student Learning Outcomes:**

1. Demonstrate proficiency in current laboratory techniques, ecological sampling techniques, and the collection of abiotic and biotic data in the laboratory and field.
2. Assess the impact of climate and human intervention on determining populations through ecosystems, using theories of biogeography, phylogenies and evolutionary thought.
3. Trace the evolutionary transition from prokaryotic to eukaryotic, and from unicellular to multicellular life.
4. Collect, analyze and interpret data sets during field trips to describe community structure and resource use.

Global Citizenship Application

Global Citizenship Category: Ecological Literacy

Course content focuses primarily on at least one of the following four areas:(Check all that apply)

- ☑ Conceptual foundations of our environmental attitudes, values and challenges from a variety of cultural perspectives
- ☑ Scientific understanding of Earth's natural systems and cycles, emphasizing humanity's role as the planet's ecologically dominant species and how that affects the continuing viability of habitats for life on Earth.
- ☑ Analysis of human activity and its impact on Earth's natural environments, both local and global, and the shorter-and longer-term implications for the planet's livability and sustainability.

Outcomes that pertain to this Global Citizenship Category:

- ☑ Trace the evolutionary transition from prokaryotic to eukaryotic, and from unicellular to multicellular life.
- ☑ Assess the impact of climate and human intervention on determining populations through ecosystems, using theories of biogeography, phylogenies and evolutionary thought.
- ☑ Collect, analyze and interpret data sets during field trips to describe community structure and resource use.

Narrative:
This course analyses the diversity and distribution patterns of organisms in the biosphere. It analysis the environmental effects that influence population dynamics and the human impact on such dynamics. Further, the course analyses the patterns of evolution and biogeography and how we characterize such patterns based on evidence from the past and present.

Department Vote: Yes 15; No: 0; Abstain: 0

BIOL 1B Distance Education Application

☑ Online/Classroom Hybrid (not a delivery option when campus is closed)

1a. Instructor - Student Interaction:
Students will interact with the instructor on a weekly basis through email, discussion board, virtual office hours and evaluation/feedback on assignments and other assessments. Because this is a hybrid course, students will also interact with the instructor during lab sessions.

1b. Student - Student Interaction:
Students will interact with each other on discussion boards, joint projects and/or peer evaluations. Because this is a hybrid course, students will also interact with each other during lab sessions and group projects.

1c. Student - Content Interaction:
Students will receive weekly course materials in the form of lecture videos, slide decks, discussion board prompts. Additionally, faculty will provide opportunities for in-person online discussions with consideration for accessibility for all students. Students will also be prompted to complete assignments with thorough recorded and/or written instructions. Additional reading assignments may be presented. Because this is a hybrid course, students will have the opportunity to do in-person assignments and projects.

1d. Distance Ed Interactions:

Online class activities that promote class interaction and engagement	Brief Description	Percentage of Online Course Hours
Written assignments	Students will be given written assignments that will be submitted to established dropboxes.	10.00%
Threaded Discussions	Students will be asked to respond to questions about the course material, and to each other in a threaded discussion.	10.00%
Online Lecture	Lectures will be presented online.	80.00%

2. Organization of Content:
Content will be organized in the online teaching platform, through weekly modules with recommended completion dates and/or due dates in the course calendar. Some assignments may be provided through various third party aquaculture resources.

3. Assessments:

% of grade	Activity	Assessment Method
25.00%	Quizzes and Exams	A portion of the online assessment will be quizzes. This represents half of the entire assessment by quiz, including the in-person portion of the course.
15.00%	Online Participation	Students will be evaluated on their participation in the classroom and field trips. This represents half of the overall participation assessment for the whole course, including in-person.
30.00%	Group Projects	With this being a hybrid course, group projects will be accomplished in person, so zero percent of the classwork will be online.
30.00%	Class work	With this being a hybrid course, class work will be accomplished in person, so zero percent of the classwork will be online.

4. Instructor's Technical Qualifications:
Faculty should have completed online teaching certification or demonstrate competency in online instruction delivery, assessment and student interaction.

5. Student Support Services:
NA

6. Accessibility Requirements:
All required accommodations will be provided, as necessary, by the instructor and the SMC Center for Students with Disabilities.

7. Representative Online Lesson or Activity:

Present a nuanced discussion on the pros and cons of genetic manipulation in aquaculture, with special attention to public health and/or environmental concerns. This activity can be completed through a specified discussion board, live online discussion, or video production. This assignment can also be submitted as a paper, for which faculty and/or student peer feedback can be provided in the online teaching platform submission feature.

Advisory Checklist and Worksheet: BIOL 1B
Proposed Advisory: English C1000

SECTION 1 - CONTENT REVIEW:

Criterion	N/A	Yes	No
1. Faculty with appropriate expertise have been involved in the determination of the advisory.		**X**	
2. The department in which the course is (will be) taught has considered course objectives in accordance with accreditation standards.		**X**	
3. Selection of this advisory is based on tests, the type and number of examinations, and grading criteria.		**X**	
4. Selection of this advisory is based on a detailed course syllabus and outline of record, related instructional materials and course format.		**X**	
5. The body of knowledge and/or skills which are recommended for success before enrollment have been specified in writing (see below).		**X**	
6. The course materials presented in this advisory have been reviewed and determined to teach knowledge or skills recommended for success in the course requiring this advisory.		**X**	
7. The body of knowledge and/or skills recommended for success in this course have been matched with the knowledge and skills developed by the advisory course.		**X**	
8. The body of knowledge and/or skills taught in the advisor are not an instructional unit of this course.		**X**	
9. Written documentation that steps 1 to 8 above have been taken is readily available in departmental files.		**X**	

ENTRANCE SKILLS RECOMMENDED FOR SUCCESS IN: **BIOL 1B**
(It is recommended that the student to be able to do or understand the following BEFORE entering the course)

A)	Ability to read complex, college-level English essays
B)	Ability to comprehend college-level written and spoken English
C)	Ability to respond to college-level prompts in English, using either written or oral communication
D)	Ability to successfully perform literature searches using library resources
E)	Ability to write a college-level research paper in English, using appropriate citation formatting.

EXIT SKILLS (objectives) FROM: **ENGL C1000**
(What the student has the demonstrated ability to do or understand AFTER successful completion of this course)

1.	The student will demonstrate the ability to read, comprehend, and analyze college-level writing and respond with thesis-driven analytic essays, scored according to a rubric for appropriate and adequate development and clarity of language and critical thinking.
2.	After defining a topic and using any combination of library, web-based, and/or field research, the student will write a research paper that appropriately uses carefully evaluated and well-documented research material to support a clearly articulated thesis

	ENTRANCE SKILLS FOR: **BIOL 1B**								
EXIT SKILLS From: **ENGL C1000**		A	B	C	D	E	F	G	H
	1	X	X	X					
	2				X	X			
	3								
	4								
	5								
	6								
	7								
	8								

New Course: BIOLOGY 1L, Research Methodology in Biological Sciences

Units:	2.00
Total Instructional Hours (usually 18 per unit):	72.00
Hours per week (full semester equivalent) in Lecture:	1.00
In-Class Lab:	3.00
Arranged:	0.00
Outside-of-Class Hours:	36.00

Transferability:	Transfers to CSU, UC (pending)
Cal-GETC Area:	5B: Biological Science (pending), 5C: Laboratory (pending)
SMC GE Area:	5: Natural Sciences
Degree Applicability:	Credit – Degree Applicable
Advisory(s):	ENGL C1000
Pre/Corequisite(s):	BIOL 1A or BIOL 1B
Prerequisite(s):	CHEM 11
Proposed Start:	Fall 2028
TOP/SAM Code:	040100 - Biology, General / E – Non-Occupational
Grading:	Letter Grade or P/NP
Repeatability:	No
Library:	Library has adequate materials to support course
Minimum Qualification:	Biological Sciences
Program Impact:	Forthcoming degree or certificate: Biology

Rationale
This course is one of three for the fulfillment of the Biology Major, as well as for the fulfillment of transfer requirements to 4-year institutions.

I. **Catalog Description**
This lab course is one of three in the Biology Majors series. The course is designed to provide students with the opportunity to study scientific methodology in depth through studying theory and with hands-on experiences in either the laboratory and/or the field. Theoretical work will include topics such as the steps of the scientific process and the various ways that scientific information is gathered and communicated. This course is meant to partially fulfill the requirements of the Biology Major, along with Biology 1A and 1B. *Students must take Biology 1A or Biology 1B — as the prerequisite for Biology 1L. *Once either Biology 1A or 1B has been successfully completed, Biology 1L may be taken on its own or concurrently with the remaining course in the majors series (Biology 1A or 1B).

II. **Examples of Appropriate Text or Other Required Reading:**
(include all publication dates; for transferable courses at least one text should have been published within the last five years)
1. Campbell Biology, 12th, Urry, L. A., Cain, M. L., Wasserman, S. A., Minorsky, P. V., & Orr, R. B., Pearson © 2022, ISBN: 9780135188743
2. Investigating Biology Laboratory Manual, 10th, Morgan, Judith Giles, and M. Eloise Brown Carter, Pearson © 2021, ISBN: 9780137538256

III. **Course Objectives**
Upon completion of this course, the student will be able to:
1. Demonstrate an understanding of the ethical responsibilities of scientists and the importance of equity in scientific research and communication.
2. Compare and critique modern forms of scientific information (e.g., peer-reviewed, media and AI-generated).
3. Employ basic skills in data analysis, such as using standard curves, assigning appropriate significant figures, and evaluating trend lines.
4. Formulate research projects using scientific inquiry, including developing testable, falsifiable hypotheses and designing controlled experiments that address those hypotheses.
5. Assess project results using appropriate statistical and analytical tools.

6. Interpret the data for statistically significant patterns, reason through the information to feasible conclusions, and communicate the research effectively.

IV. **Methods of Presentation:**
Distance Education, Field Experience, Lecture and Discussion, Lab, Observation and Demonstration, Discussion, Critique, Projects, Experiments, Field Trips, Visiting Lecturers, Group Work

V. **Course Content**

% of Course	Topic
50.000%	Scientific vs Popular Literature: writing, Review & critical analysis Web & AI-based information Scientific presentation Scientific Equity and Ethics
50.000%	Philosophy of Science Observation skills Asking questions Hypothesis Forming Experimental Design Data Analysis
100.000%	Total

VI. **Methods of Evaluation**

% of Course	Topic
15%	Exams and Quizzes
15%	Class Participation: In-class activities.
15%	Group Projects
15%	Papers
40%	Research Projects: Four to Five Projects.
100%	Total

VII. **Sample Assignments:**
Data Analysis:
In this 2-step assignment, utilize the long-term project dataset that you collected with your group. A) Employ the statistical tests that you originally proposed or justify why your analysis must change. B) Once you've statistically summarized the data, determine the best way of representing them, as discussed in class (tables, figures, etc.). Be sure to include captions with proper placement, labels and legends/keys where applicable. Be sure to include the results of your analysis in your tables and figures. If you are unsure about the direction you should take, be sure to either consult the work we've done in the lab already or ASK!
Develop and Utilize a Standard Curve:
Using the dataset that we collected in the field, A) determine the dependent and independent variables, B) identify the continuous variable, and explain how to distinguish it from a categorical variable, with an example, and C) develop a standard curve and determine whether interpolation or extrabpolation is required to estimate the total number of butterflies per hectare. Show your work.

VIII. **Student Learning Outcomes:**

1. Construct standard curves from experimental data, and effectively utilize them with knowledge of the difference between interpolation and extrapolation.
2. Devise and execute independent research by first compiling sufficient background information that can be used to adequately justify the formulation of original hypotheses, then designing, executing and analyzing th results from statistically robust controlled experiments.
3. Apply ethical frameworks to case studies involving equitable best practices, data integrity, animal/human subjects, and the environmental impact of scientific research.
4. Critically Analyze and evaluate the credibility and accuracy of primary scientific literature, popular science writing and AI-based information using established factchecking and peer-review standards.

BIOL 1L Distance Education Application

This Distance Education course meets the same standard of course quality as is applied to traditional classroom

1a. Instructor - Student Interaction:
Students will interact with the instructor on a weekly basis through email, discussion board, virtual office hours and evaluation/feedback on assignments and other assessments. Because this is a hybrid course, students will also interact with the instructor during lab sessions.

1b. Student - Student Interaction:
Students will interact with each other on discussion boards, joint projects and/or peer evaluations. Because this is a hybrid course, students will also interact with each other during lab sessions and group projects.

1c. Student - Content Interaction:
Students will receive weekly course materials in the form of lecture videos, slide decks, discussion board prompts. Additionally, faculty will provide opportunities for in-person online discussions with consideration for accessibility for all students. Students will also be prompted to complete assignments with thorough recorded and/or written instructions. Additional reading assignments may be presented. Because this is a hybrid course, students will have the opportunity to do in-person assignments and projects.

1d. Distance Ed Interactions:

Online class activities that promote class interaction and engagement	Brief Description	Percentage of Online Course Hours
Written assignments	Students will be given written assignments that will be submitted to established dropboxes.	10.00%
Threaded Discussions	Students will be asked to respond to questions about the course material, and to each other in a threaded discussion.	10.00%
Online Lecture	Lectures will be presented online.	80.00%

2. Organization of Content:
Content will be organized in the online teaching platform, through weekly modules with recommended completion dates and/or due dates in the course calendar. Some assignments may be provided through various third party aquaculture resources.

3. Assessments:

% of grade	Activity	Assessment Method
25.00%	Discussion and Participation	Participation and online discussion boards will be assessed as part of the online portion of the course.
50.00%	Reports and Assignments	Lab reports and assignments, will be completed online and in-person.
25.00%	Quizzes	25% of the online portion of the course will be assessed through quizzes. This represents a portion of the overall student assessment for the course, including the in-person portion.

4. Instructor's Technical Qualifications:
In addition to a Master's degree in biology or a related field, expertise in teaching methods in biological research is a must.

5. Student Support Services:
NA

6. Accessibility Requirements:
All required accommodations will be provided, as necessary, by the instructor and the SMC Center for Students with Disabilities.

7. Representative Online Lesson or Activity:
Present a nuanced discussion on the evaluation and analysis of AI-generated information. This activity can be completed through a specified discussion board, live online discussion, or video production. This assignment can also be submitted as a paper, for which faculty and/or student peer feedback can be provided in the online teaching platform submission feature.

Prerequisite Checklist and Worksheet: BIOL 1L
Prerequisite: CHEM 11
Other prerequisites, corequisites, and advisories also required for this course:
BIOL 1A or 1B (Pre/corequisite)
ENGL C1000 (Advisory)

SECTION 1 - CONTENT REVIEW: If any criterion is not met, the prerequisite will be disallowed.

Criterion	Met	Not Met
1. Faculty with appropriate expertise have been involved in the determination of the prerequisite, corequisite or advisory.	**X**	
2. The department in which the course is (will be) taught has considered course objectives in accordance with accreditation standards.	**X**	
3. Selection of this prerequisite, corequisite or advisory is based on tests, the type and number of examinations, and grading criteria.	**X**	
4. Selection of this prerequisite, corequisite or advisory is based on a detailed course syllabus and outline of record, related instructional materials and course format.	**X**	
5. The body of knowledge and/or skills which are necessary for success before and/or concurrent with enrollment have been specified in writing.	**X**	
6. The course materials presented in this prerequisite or corequisite have been reviewed and determined to teach knowledge or skills needed for success in the course requiring this prerequisite.	**X**	
7. The body of knowledge and/or skills necessary for success in the course have been matched with the knowledge and skills developed by the prerequisite, corequisite or advisory.	**X**	
8. The body of knowledge and/or skills taught in the prerequisite are not an instructional unit of the course requiring the prerequisite.	**X**	
9. Written documentation that steps 1 to 8 above have been taken is readily available in departmental files.	**X**	

SECTION II - ADDITIONAL LEVEL OF SCRUTINY:

___ Type 1: Standard Prerequisite (required prerequisite at UC or CSU)
Identify three UC or CSU campuses that offer the equivalent course with the equivalent prerequisite.
List schools here:
Complete the Prerequisite Worksheet

___ Type 2: Sequential within and across disciplines (e.g., Physics 7, 8, 9, …)
Complete the Prerequisite Worksheet

___ Type 3: Course in communication or computational skills as prerequisite for course other than another skills course (e.g., English 1 prerequisite for Anatomy 1)
Complete the Prerequisite Worksheet
Complete Data Analysis

X Type 4: Program prerequisites
Prerequisite must be required for at least one of the courses in the program. Explain: A fundamental understanding of Chemistry is required to learn the biochemical pathways discussed in this course.

___ Type 5: Health and Safety
Students who lack the prerequisite might endanger themselves, other students or staff. Explain:

___ Type 6: Recency and other measures of readiness (miscellaneous)
Data must be collected according to sound research principles in order to justify such prerequisites.
Complete the Prerequisite Worksheet

ENTRANCE SKILLS FOR **(BIOL 1L)**
(What the student needs to be able to do or understand BEFORE entering the course in order to be successful)

A)	Ability to understand and solve scientific problems.
B)	Ability to follow logical procedures
C)	Describe the differences among macromolecules, including organic and inorganic compounds
D)	Ability to complete basic chemistry lab techniques
E)	Ability to distinguish among the types of chemical bonds and ionic affinities
F)	Ability to objectively evaluate a data set and draw appropriate conclusions based on those data.
G)	Ability to relate theories in Introductory Chemistry to real-world observations

EXIT SKILLS (objectives) FOR **(CHEM 11)**

(What the student has the demonstrated ability to do or understand AFTER successful completion of this course)

1.	The student will demonstrate the ability to solve scientific problems by following logical procedures based on well-established scientific principles.
2.	The student will follow written procedures used in the general chemistry laboratory accurately and safely.
3.	Describe key differences between inorganic and organic biological molecules
4.	When completing a lab report, the student will correctly apply the scientific method by making reasonable estimates of experimental uncertainties and drawing appropriate conclusions based on the gathered data and scientific principles.
5.	The student will be able to relate microscopic theories to macroscopic observations specifically using the chemical principles developed in Introductory Chemistry.

	ENTRANCE SKILLS FOR (BIOL 1L)								
EXIT SKILLS FOR (CHEM 11)		A	B	C	D	E	F	G	H
	1	x	x	x	X				
	2	x	x	x					
	3			x	x			x	
	4	x	x	x		x	x	x	
	5	x		x		x	x	x	
	6								
	7								
	8								

Pre/corequisite Checklist and Worksheet: BIOL 1L
Pre/corequisite: BIOL 1A *(or BIOL 1B)*
Other prerequisites, corequisites, and advisories also required for this course:
CHEM 11 (Prerequisite)
ENGL C1000 (Advisory)

SECTION 1 - CONTENT REVIEW: If any criterion is not met, the prerequisite will be disallowed.

Criterion	Met	Not Met
1. Faculty with appropriate expertise have been involved in the determination of the prerequisite, corequisite or advisory.	x	
2. The department in which the course is (will be) taught has considered course objectives in accordance with accreditation standards.	x	
3. Selection of this prerequisite, corequisite or advisory is based on tests, the type and number of examinations, and grading criteria.	x	
4. Selection of this prerequisite, corequisite or advisory is based on a detailed course syllabus and outline of record, related instructional materials and course format.	x	
5. The body of knowledge and/or skills which are necessary for success before and/or concurrent with enrollment have been specified in writing.	x	
6. The course materials presented in this prerequisite or corequisite have been reviewed and determined to teach knowledge or skills needed for success in the course requiring this prerequisite.	x	
7. The body of knowledge and/or skills necessary for success in the course have been matched with the knowledge and skills developed by the prerequisite, corequisite or advisory.	x	
8. The body of knowledge and/or skills taught in the prerequisite are not an instructional unit of the course requiring the prerequisite.	x	
9. Written documentation that steps 1 to 8 above have been taken is readily available in departmental files.	x	

SECTION II - ADDITIONAL LEVEL OF SCRUTINY:

___ Type 1: Standard Prerequisite (required prerequisite at UC or CSU)
Identify three UC or CSU campuses that offer the equivalent course with the equivalent prerequisite.
List schools here:
Complete the Prerequisite Worksheet

x Type 2: Sequential within and across disciplines (e.g., Physics 7, 8, 9, …)
Complete the Prerequisite Worksheet

___ Type 3: Course in communication or computational skills as prerequisite for course other than another skills course (e.g., English 1 prerequisite for Anatomy 1)
Complete the Prerequisite Worksheet
Complete Data Analysis

___ Type 4: Program prerequisites
Prerequisite must be required for at least one of the courses in the program. Explain:

___ Type 5: Health and Safety
Students who lack the prerequisite might endanger themselves, other students or staff. Explain:

___ Type 6: Recency and other measures of readiness (miscellaneous)
Data must be collected according to sound research principles in order to justify such prerequisites.
Complete the Prerequisite Worksheet

ENTRANCE SKILLS FOR **BIOL 1L**
(What the student needs to be able to do or understand BEFORE entering the course in order to be successful)

A)	Compare and contrast the variety of metabolic pathways
B)	Distinguish structural and life cycle differences between prokaryotic and eukaryotic cells.
C)	Demonstrate proficiency in light microscopy and current laboratory techniques in cell and molecular biological research.
D)	Construct an argument for how biological homeostasis is achieved and maintained.
E)	Execute controlled experiments including collecting and analyzing data, drawing biologically valid conclusions.

EXIT SKILLS (objectives) FOR **BIOL 1A**

(What the student has the demonstrated ability to do or understand AFTER successful completion of this course)

1.	Compare and contrast the variety of metabolic pathways
2.	Distinguish structural and life cycle differences between prokaryotic and eukaryotic cells.
3.	Demonstrate proficiency in light microscopy and current laboratory techniques in cell and molecular biological research.
4.	Construct an argument for how biological homeostasis is achieved and maintained.
5.	Execute controlled experiments including collecting and analyzing data, drawing biologically valid conclusions.

	ENTRANCE SKILLS FOR (Biology 1L)								
EXIT SKILLS FOR (Biology 1A)		A	B	C	D	E	F	G	H
	1	x							
	2		x						
	3			x					
	4				x				
	5					x			
	6								
	7								
	8								

Pre/corequisite Checklist and Worksheet: BIOL 1L
Pre/corequisite: BIOL 1B *(or BIOL 1A)*
Other prerequisites, corequisites, and advisories also required for this course:
CHEM 11 (Prerequisite)
ENGL C1000 (Advisory)

SECTION 1 - CONTENT REVIEW: If any criterion is not met, the prerequisite will be disallowed.

Criterion	Met	Not Met
1. Faculty with appropriate expertise have been involved in the determination of the prerequisite, corequisite or advisory.	x	
2. The department in which the course is (will be) taught has considered course objectives in accordance with accreditation standards.	x	
3. Selection of this prerequisite, corequisite or advisory is based on tests, the type and number of examinations, and grading criteria.	x	
4. Selection of this prerequisite, corequisite or advisory is based on a detailed course syllabus and outline of record, related instructional materials and course format.	x	
5. The body of knowledge and/or skills which are necessary for success before and/or concurrent with enrollment have been specified in writing.	x	
6. The course materials presented in this prerequisite or corequisite have been reviewed and determined to teach knowledge or skills needed for success in the course requiring this prerequisite.	x	
7. The body of knowledge and/or skills necessary for success in the course have been matched with the knowledge and skills developed by the prerequisite, corequisite or advisory.	x	
8. The body of knowledge and/or skills taught in the prerequisite are not an instructional unit of the course requiring the prerequisite.	x	
9. Written documentation that steps 1 to 8 above have been taken is readily available in departmental files.	x	

SECTION II - ADDITIONAL LEVEL OF SCRUTINY:

___ Type 1: Standard Prerequisite (required prerequisite at UC or CSU)
Identify three UC or CSU campuses that offer the equivalent course with the equivalent prerequisite.
List schools here:
Complete the Prerequisite Worksheet

x Type 2: Sequential within and across disciplines (e.g., Physics 7, 8, 9, …)
Complete the Prerequisite Worksheet

___ Type 3: Course in communication or computational skills as prerequisite for course other than another skills course (e.g., English 1 prerequisite for Anatomy 1)
Complete the Prerequisite Worksheet
Complete Data Analysis

___ Type 4: Program prerequisites
Prerequisite must be required for at least one of the courses in the program. Explain:

___ Type 5: Health and Safety
Students who lack the prerequisite might endanger themselves, other students or staff. Explain:

___ Type 6: Recency and other measures of readiness (miscellaneous)
Data must be collected according to sound research principles in order to justify such prerequisites.
Complete the Prerequisite Worksheet

ENTRANCE SKILLS FOR **BIOL 1L**
(What the student needs to be able to do or understand BEFORE entering the course in order to be successful)

A)	Identify key diagnostic features of major kingdoms and phyla/divisions, including but not limited to anatomical, molecular, and physiological adaptations.
B)	Demonstrate proficiency in current laboratory and ecological sampling techniques, and the collection of abiotic and biotic data in the laboratory and field.
C)	An understanding of the logic and execution of the process of scientific inquiry
D)	Collect, analyze and interpret data sets during field trips to describe community structure and resources use.
E)	Design and execute controlled experiments including collecting and analyzing data, drawing biologically valid conclusions.

EXIT SKILLS (objectives) FOR **BIOL 1B**

(What the student has the demonstrated ability to do or understand AFTER successful completion of this course)

1.	Identify key diagnostic features of major kingdoms and phyla/divisions, including but not limited to anatomical, molecular, and physiological adaptations.
2.	Demonstrate proficiency in current laboratory and ecological sampling techniques, and the collection of abiotic and biotic data in the laboratory and field.
3.	An understanding of the logic and execution of the process of scientific inquiry
4.	Collect, analyze and interpret data sets during field trips to describe community structure and resources use.
5.	Design and execute controlled experiments including collecting and analyzing data, drawing biologically valid conclusions.

	ENTRANCE SKILLS FOR (Biology 1L)								
EXIT SKILLS FOR (Biology 1B)		A	B	C	D	E	F	G	H
	1	x							
	2		x						
	3			x					
	4				x				
	5					x			
	6								
	7								
	8								

Advisory Checklist and Worksheet: BIOL 1L
Proposed Advisory: English C1000

SECTION 1 - CONTENT REVIEW:

Criterion	N/A	Yes	No
1. Faculty with appropriate expertise have been involved in the determination of the advisory.		**X**	
2. The department in which the course is (will be) taught has considered course objectives in accordance with accreditation standards.		**X**	
3. Selection of this advisory is based on tests, the type and number of examinations, and grading criteria.		**X**	
4. Selection of this advisory is based on a detailed course syllabus and outline of record, related instructional materials and course format.		**X**	
5. The body of knowledge and/or skills which are recommended for success before enrollment have been specified in writing (see below).		**X**	
6. The course materials presented in this advisory have been reviewed and determined to teach knowledge or skills recommended for success in the course requiring this advisory.		**X**	
7. The body of knowledge and/or skills recommended for success in this course have been matched with the knowledge and skills developed by the advisory course.		**X**	
8. The body of knowledge and/or skills taught in the advisor are not an instructional unit of this course.		**X**	
9. Written documentation that steps 1 to 8 above have been taken is readily available in departmental files.		**X**	

ENTRANCE SKILLS RECOMMENDED FOR SUCCESS IN: **BIOL 1L**
(It is recommended that the student to be able to do or understand the following BEFORE entering the course)

A)	Ability to read complex, college-level English essays
B)	Ability to comprehend college-level written and spoken English
C)	Ability to respond to college-level prompts in English, using either written or oral communication
D)	Ability to successfully perform literature searches using library resources
E)	Ability to write a college-level research paper in English, using appropriate citation formatting.
F)	

EXIT SKILLS (objectives) FROM: **ENGL C1000**
(What the student has the demonstrated ability to do or understand AFTER successful completion of this course)

1.	The student will demonstrate the ability to read, comprehend, and analyze college-level writing and respond with thesis-driven analytic essays, scored according to a rubric for appropriate and adequate development and clarity of language and critical thinking.
2.	After defining a topic and using any combination of library, web-based, and/or field research, the student will write a research paper that appropriately uses carefully evaluated and well-documented research material to support a clearly articulated thesis

	ENTRANCE SKILLS FOR: **BIOL 1L**								
EXIT SKILLS From: **ENGL C1000**		A	B	C	D	E	F	G	H
	1	X	X	X					
	2				X	X			
	3								
	4								
	5								
	6								
	7								
	8								

New Course: GEOGRAPHIC INFORMATION SYSTEMS 29, Introduction to Uncrewed Vehicles and Geospatial Applications

Units:	3.00
Total Instructional Hours (usually 18 per unit):	54.00
Hours per week (full semester equivalent) in Lecture:	3.00
In-Class Lab:	0.00
Arranged:	0.00
Outside-of-Class Hours:	108.00

Transferability:	Transfers to CSU
Degree Applicability:	Credit – Degree Applicable
Advisory(s):	GIS 20 *(same as GEOG 20)*
Proposed Start:	Fall 2027
TOP/SAM Code:	095730 - Surveying / C - Clearly Occupational
Grading:	Letter Grade or P/NP
Repeatability:	No
Library:	Library has adequate materials to support course
Minimum Qualification:	Geography; Other Bachelor's (BA/BS) degree in Geography, GIS, Environmental Science, or Engineering/Surveying with a minimum of 5-year professional working experience in related fields
Program Impact:	Geospatial Technology Certificate of Achievement, Geospatial Technology Department Certificate

Rationale

Uncrewed Aircraft Systems (UAS), commonly referred to as "drones," have become critical tools widely used across numerous professional fields. These applications span mapping and surveying, remote sensing, environmental sciences, cultural resources management, search and rescue, disaster response and management, law enforcement, photography, and videography. There is a rapidly growing number of jobs in these sectors that require specialized knowledge and skills in appropriately using uncrewed systems to gather data and build sophisticated geospatial applications. This course is designated as clearly occupational and proposed for inclusion in the existing Geospatial Technology degree or certificate. To operate legally and demonstrate an understanding of safety, regulations, and procedures, employees are required to obtain certification. Consequently, this course is also designed to provide comprehensive regulatory preparation, enabling students to pass the FAA Part 107 Remote Pilot Knowledge Test to secure their commercial certification, as well as satisfying the requirements of the Recreational UAS Safety Test (TRUST). Furthermore, the complexity of modern data acquisition requires professionals to understand integrated robotic workflows. This course will equip students with the knowledge and skills necessary to plan, create, and develop UAS-based applications, while also introducing and comparing the operational use and limitations of other platforms, specifically Uncrewed Ground Vehicles (UGVs) and Uncrewed Underwater Vehicles (UUVs), for professional data gathering. This ensures students gain the multi-platform context essential for success in the modern geospatial industry.

I. **Catalog Description**

This course introduces students to the theory and practical application of Uncrewed Vehicles (UVs), focusing primarily on Uncrewed Aircraft Systems (UAS) for geospatial data acquisition. Drones are widely used in fields such as remote sensing, environmental sciences, law enforcement, surveying, and disaster management. The course equips students with the technical knowledge to plan, create, and develop UAS-based applications, while preparing them for the FAA Part 107 Remote Pilot Knowledge Test and the Recreational UAS Safety Test (TRUST) to obtain required certification. Topics covered include advanced airspace, aviation weather, safety procedures, and the application of spatial data principles to flight operations. The course also explores the comparative operational use of Uncrewed Ground Vehicles (UGVs) and Uncrewed Underwater Vehicles (UUVs) for professional data gathering.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Introduction to Unmanned Aircraft Systems, 3rd edition, R. Kurt Barnhart, Douglas M. Marshall, Eric Shappee, CRC Press © 2021, ISBN: 978-0367366599
2. Elements of Photogrammetry with Application in GIS, 4th Edition, Paul R. Wolf, Bon A. DeWitt, Benjamin E. Wilkinson, 978-0071761123 © 2014, ISBN: 978-0071761123

3. FAA Remote Pilot – Small UAS Study Guide (FAA-G-8082-22), OER, Federal Aviation Administration , NA © 2016

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Explain and comply with federal regulatory frameworks governing Uncrewed Aircraft Systems (UAS), including the core principles of FAA Part 107 regulations and the requirements necessary to satisfy the Recreational UAS Safety Test (TRUST), thereby preparing for the FAA Remote Pilot Certificate exam.
2. Demonstrate competency in the practical application of UAS operation by performing systematic pre-flight risk assessments, applying geospatial concepts, and using approved simulation tools to execute and log safe, compliant mission-planning procedures.
3. Analyze and utilize geospatial information, weather data, and airspace regulations (including reading sectional charts) to understand the capabilities and limitations of the UAS and apply this knowledge effectively across various professional data acquisition and application scenarios.
4. Compare and contrast the operational use, regulatory differences, and data acquisition methods of aerial UAS with other robotic platforms, such as Uncrewed Ground Vehicles (UGVs) and Uncrewed Underwater Vehicles (UUVs).

IV. **Methods of Presentation:**

Distance Education, Lecture and Discussion, Discussion, Visiting Lecturers, Service Learning, Online instructor-provided resources

V. **Course Content**

% of Course	Topic
10.000%	Introduction to Uncrewed Systems (UAS, UGVs, UUVs), Safety, and Map Reading.
15.000%	Comprehensive Regulatory Compliance (FAA Part 107 & TRUST)
15.000%	Airspace, Geospatial Interpretation, and Flight Restrictions
20.000%	Aviation Weather Data and Decision-Making
20.000%	Loading, Performance, Maintenance, and Data Workflows
20.000%	Advanced UAS Operations, Mission Planning, and Simulation Practice
100.000%	Total

VI. **Methods of Evaluation**

% of Course	Topic
10%	Class Participation: In-class activities.
40%	Other Assessments: 10 discussions or development reports.
30%	Exams/Tests: 10 module quizzes.
20%	Final Project: One final project and presentation.
100%	Total

VII. **Sample Assignments:**

Drone Systems & Flight Safety Case Study: Learning Outcomes: 1) Understand major drone components and flight systems 2) Connect technology to real-world safety issues 3) Interpret FAA regulations in context 4) Develop professional presentation or technical writing skills Instructions: 1. Search the National Transportation Safety Board (NTSB) database (https://www.ntsb.gov/Pages/AviationQueryv2.aspx), and choose one real-world drone-related incident in the past year. 2. Read and analyze the incident report. 3. Prepare a 3–4 page written report and

a 5–7 minute slide presentation Requirements - Your analysis must include: 1. Overview of the incident; 2. Type of drone and flight purpose 3. Environmental & operational conditions 4. Human factors (pilot error, miscommunication, training, etc.) 5. FAA regulations involved (Part 107 rules that were followed or violated) 6. What could have prevented the incident? 7. What lessons learned for safely operating UAS in the future?
Part 107 Regulatory Compliance Mission Plan: Learning Outcomes: 1. Apply FAA Part 107 rules to realistic missions; 2. Demonstrate operational planning & safety awareness 3. Interpret airspace and regulatory requirements 4. Practice professionalism in UAS documentation Instructions: Scenario: You have been hired to capture aerial footage of a public park for a city tourism video. The park is near a small airport and contains pedestrian pathways, trees, and open fields. Your task: Create a complete mission plan including: 1. Mission Objective & Flight Area Description 2. Airspace Classification (via FAA UAS Facility Map or B4UFLY app) 3. Airspace Authorization (needed or not?) 4. Weather & Performance Considerations 5. Crew Roles & Safety Briefing 6. Preflight Checklist 7. Risk Assessment (people, obstacles, line-of-sight) 8. Applicable Part 107 Regulations (e.g., VLOS, altitude, daylight, operations over people) 9. Mitigation Strategies 10. Post-flight procedures & data management 11. A basic flight path map (you can use Google Earth or DJI Flight Planner)

VIII. **Student Learning Outcomes:**

1. Describe the Uncrewed Aircraft System (UAS) components, operational procedures, and federal regulatory requirements (Part 107 and TRUST) necessary to obtain the FAA Remote Pilot Certificate.
2. Plan and conduct safe UAS missions through the integration of airspace regulations, weather data, and geospatial tools.
3. Evaluate and select aerial, ground, and underwater UAS platforms to collect, interpret, and apply geospatial data in professional contexts.

GIS 29 Distance Education Application

- ☑ Fully Online
- ☑ Online/Classroom Hybrid (not a delivery option when campus is closed)

1a. Instructor - Student Interaction:
The instructor interacts with students through weekly announcements, grading feedback and comments on students' work. The instructor will also meet students virtually during office hours every week.

1b. Student - Student Interaction:
Students will engage with one another through weekly discussion boards, collaborative activities, peer-review assignments, and small-group projects. Students are expected to participate in online discussions at least once per week and contribute thoughtful, respectful, and substantive responses that promote a supportive and engaging learning environment. Additional interaction occurs through study/project groups to encourage continued collaboration and connection throughout the semester.

1c. Student - Content Interaction:
Students will engage with course content regularly through multiple instructional formats designed to build foundational knowledge and prepare for the FAA Part 107 exam. Each week, students will interact with lecture materials such as recorded video lessons, reading assignments, and instructor-developed notes. Students will complete weekly self-check quizzes to reinforce understanding and track progress, participate in discussion boards that encourage application of concepts to real-world drone scenarios, and complete writing assignments that demonstrate comprehension and professional communication skills.

1d. Distance Ed Interactions:

Online class activities that promote class interaction and engagement	Brief Description	% of Online Course Hours
Threaded Discussions	Students will engage with one another through weekly discussion boards/threaded discussions that support collaboration, critical thinking, and application of drone concepts. Each week, students will respond to a prompt related to course topics such as FAA rules, airspace, weather, or safe operations, and then reply to at least two classmates. Posts should add meaningful insight, ask questions, or share relevant resources or examples. These discussions provide a space to exchange ideas, problem-solve together, and practice professional communication skills essential for the drone industry and FAA Part 107 certification preparation.	15.00%

Online Lecture	Students will interact with online lecture materials each week to build foundational knowledge and prepare for the FAA Part 107 exam. Lectures will be delivered through short recorded videos, guided notes, and supplemental learning resources. Students are expected to view lecture content on a weekly basis, take notes, and review key concepts. Lectures are designed to be interactive, incorporating checkpoints, embedded questions, or short reflection prompts to encourage active engagement.	30.00%
Written assignments	Students will complete written assignments throughout the course to reinforce key concepts and demonstrate understanding of FAA regulations, airspace rules, weather considerations, flight planning, and safe drone operations. Assignments will require students to explain concepts in their own words, analyze real-world scenarios, and apply course knowledge to professional-style written responses. Students are expected to submit clear, well-organized work that follows assignment guidelines and reflects critical thinking. Written assignments support mastery of core drone competencies and help build the communication skills essential for success on the FAA Part 107 exam and in professional operations.	20.00%
Project Presentation	Students will participate in project presentations and peer-review activities to apply course concepts and demonstrate developing drone knowledge and communication skills. Each student or each student group will complete a final project, present their work through a recorded or live online presentation, and clearly explain key decisions, safety considerations, and regulatory requirements. Students will also review and provide constructive feedback on at least two peers' presentations, using guided criteria to offer supportive suggestions, ask clarifying questions, and highlight strengths. These activities foster professional communication, deepen understanding through observation of peers' work, and encourage collaborative learning aligned with real-world drone industry practices.	20.00%
Study and/or Review Sessions	Students will participate in structured study and review sessions to reinforce key course concepts and prepare for the FAA Part 107 certification exam. These sessions may include guided study materials, optional live or recorded review workshops, practice questions, and exam-style review activities. Students are expected to engage with review resources regularly, revisit lecture notes, and complete recommended study exercises to strengthen understanding of regulations, airspace, weather, operations, and safety requirements. Active participation in study and review sessions helps students assess their readiness, clarify challenging topics, and build confidence for certification success.	15.00%

2. Organization of Content:

Course content will be organized into weekly modules, with each module aligned to specific learning outcomes and FAA Part 107 knowledge areas. Instructional materials will include short pre-recorded lecture videos, instructor notes and slide decks, FAA study resources, interactive learning tools, and supplemental readings. Students will complete learning activities such as discussion boards, written assignments, quizzes, and review exercises each week to reinforce understanding and build exam readiness. Modules are designed to be completed on a weekly schedule. Required materials include web-based FAA study guides, and recommended drone-related resources. Content delivery will emphasize structured progression, active engagement, and applied learning to ensure students achieve course outcomes and prepare for professional drone operation and FAA certification.

3. Assessments:

% of grade	Activity	Assessment Method
10.00%	Class Participation	Class participation will be maintained through weekly Canvas discussions, review sessions, and virtual Q&A opportunities. Students will actively respond to prompts, share insights related to FAA regulations and drone operations, and offer constructive feedback to peers. Instructor participation in forums and timely feedback on posts ensures ongoing instructor–student connection. Participation is assessed based on frequency, quality of contributions, and engagement with classmates, demonstrating readiness for safe and professional drone operations.
40.00%	Class work	Weekly class work includes lecture review tasks, practice activities, self-check quizzes, safety checklists, and simulator-based flight practice logs. These assignments keep students regularly engaged with course content and allow the instructor to monitor progress and provide targeted feedback. All class work is submitted via Canvas to verify participation and ensure academic

		integrity. Assessment criteria focus on accuracy, effort, and application of concepts to flight skills and FAA Part 107 requirements.
30.00%	Exam/tests	Unit quizzes and a comprehensive online exam will evaluate mastery of FAA Part 107 knowledge areas, including airspace rules, weather, regulations, and UAV safety procedures. Exams use a secure online proctoring tool and Canvas test settings to ensure academic integrity. Assessments mirror FAA-style questions to prepare students for certification. Scores demonstrate measurable understanding of required competencies, and instructor review of results provides opportunities for individualized guidance.
20.00%	Final projects	The final project requires students to apply learned concepts to design and present a safe and compliant drone flight plan, including airspace analysis, weather review, mission objective, and risk-mitigation strategies. Students will submit a written plan and recorded presentation (or live virtual presentation) and complete a peer-feedback activity. A detailed rubric will be used to assess accuracy, safety considerations, clarity of communication, and alignment with FAA standards. This project verifies applied learning equivalent to on-ground performance.

4. Instructor's Technical Qualifications:
Instructor is expected to be familiar with SMC existing online technology, including online learning platforms (e.g. Canvas), SMC IT support, etc.

5. Student Support Services:
Students will have direct access to links and information for Santa Monica College support resources, including academic counseling, tutoring and learning support, disability accommodations through the Center for Students with Disabilities, the campus library and research databases, the SMC Bookstore for required course materials, and financial aid services. Additional links to technology support, online learning resources, career services, and mental health counseling will also be provided.

6. Accessibility Requirements:
The design of this course ensures full access for students with disabilities and adheres to Section 508 of the Rehabilitation Act, as well as Santa Monica College accessibility standards. All instructional materials—including videos, documents, images, and assessments—will be formatted for accessibility, with captioned videos, alternative text for images and diagrams, accessible PDFs, properly formatted headings, and keyboard-navigable content. Canvas course pages will follow universal design best practices, including consistent layouts, readable fonts, clear color contrast, and multiple means of engagement and assessment. Students requiring accommodations will receive support through the Center for Students with Disabilities, and the instructor will work closely with DSPS to implement approved accommodations such as extended time, assistive technology compatibility, and alternative format materials. Accessibility will be considered throughout course development to ensure all learners can fully participate and succeed in the course.

7. Representative Online Lesson or Activity:
(Sample) Drone Flight Safety & Basic Maneuvers Simulation lesson:
To support students in developing safe and proficient drone piloting skills, this lesson will guide students through a structured flight-practice simulation using an online drone flight simulator such as DJI Flight Simulator or Simulator embedded in our Learning Management System (LMS) through an external tool link. Students will begin by reviewing an instructor-recorded video and reading FAA safety guidelines posted in LMS. Next, they will complete an interactive module with embedded practice questions and a short safety checklist using LMS Quizzes. Students will then launch the simulator and practice essential flight skills—takeoff, hovering, directional control, landing, and emergency stop procedures. Learners will complete an LMS-based flight log documenting maneuvers practiced, challenges encountered, and safety considerations. To demonstrate mastery and encourage peer collaboration, students will upload a short screen-capture clip (or screenshot proof of simulator progress) and reflection to an LMS Discussion Board, where they will provide constructive feedback on two classmates' posts. This activity builds foundational piloting skills in a safe virtual environment before progressing to optional in-person or field-based flight practice.

Advisory Checklist and Worksheet: GIS 29
Proposed Advisory: GEOG/GIS 20

SECTION 1 - CONTENT REVIEW:

Criterion	N/A	Yes	No
1. Faculty with appropriate expertise have been involved in the determination of the advisory.		√	
2. The department in which the course is (will be) taught has considered course objectives in accordance with accreditation standards.		√	
3. Selection of this advisory is based on tests, the type and number of examinations, and grading criteria.		√	
4. Selection of this advisory is based on a detailed course syllabus and outline of record, related instructional materials and course format.		√	
5. The body of knowledge and/or skills which are recommended for success before enrollment have been specified in writing (see below).		√	
6. The course materials presented in this advisory have been reviewed and determined to teach knowledge or skills recommended for success in the course requiring this advisory.		√	
7. The body of knowledge and/or skills recommended for success in this course have been matched with the knowledge and skills developed by the advisory course.		√	
8. The body of knowledge and/or skills taught in the advisor are not an instructional unit of this course.		√	
9. Written documentation that steps 1 to 8 above have been taken is readily available in departmental files.		√	

ENTRANCE SKILLS RECOMMENDED FOR SUCCESS IN: **GIS 29**

(It is recommended that the student to be able to do or understand the following BEFORE entering the course)

A)	Basic GIS concepts, such as aerial imagery and map reading, coordinate systems, data layers, and spatial analysis
B)	Integration of UAS-derived data into mapping and decision-making workflows

EXIT SKILLS (objectives) FROM: **GEOG/GIS 20**

(What the student has the demonstrated ability to do or understand AFTER successful completion of this course)

1.	Demonstrate a fundamental cartographic knowledge of map projections, scale, coordinates and mapping accuracy.
2.	Explain geographic data's four components: position, attributes, spatial relationships and time to aid in retrieving, manipulating, analyzing and displaying spatially-referenced data.
3.	Demonstrate a working knowledge of GIS software and associated hardware to determine appropriate use of the technology.

		ENTRANCE SKILLS FOR: **GIS 29**							
		A	B	C	D	E	F	G	H
EXIT SKILLS From: **GEOG/GIS 20**	1	√							
	2	√	√						
	3		√						
	4								
	5								
	6								
	7								
	8								

Substantial Change: COSMETOLOGY 10A, Related Science 1A

Units:	2.00
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	2.00
In-Class Lab:	0.00
Arranged:	0.00
Outside-of-Class Hours:	72.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable

I. **Catalog Description**

This course provides essential theory carefully formulated to prepare a student to pass the written Barbering, Cosmetology, Esthetics, Hair Styling and/or Nail Care State Board Examinations. Basic concepts of bacteriology, sanitation, health and safety, and physiology pertaining to the head, face, hands and arms, are included in this course.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady Standard Barbering, 7th, Milady, Cengage © 2025, ISBN: 9798214080444
2. Milady Standard Barbering Workbook, 7th, Milady, Cengage © 2025, ISBN: 9798214499222
3. Milady Standard Cosmetology & Foundations Textbook, 14, Milady, Cengage © 2023, ISBN: 9780357871492
4. Milady Standard Cosmetology & Foundations Workbooks, 14, Milady, Cengage © 2023, ISBN: 9780357922170
5. Milady Standard Esthetics Fundamentals and Foundations Workbook, 14, Milady, Cengage © 2019, ISBN: 978-0-357482-84-1
6. Milady Textbook Esthetics Standard Fundamentals and Foundations, 12, Milady, Cengage © 2019, ISBN: 9780357263792
7. Milady Standard Foundations & Nail Technology Textbook 8th Edition , 8th, Milady, Cengage © 2021, ISBN: 9780357446867
8. Milady Standard Foundations & Nail Technology Workbooks 8th Edition , Milady, Cengage © 2021, ISBN: 9780357482865

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Classify pathogenic and nonpathogenic bacteria, bacterial growth cycles, viral transmission pathways, and bloodborne pathogen risks for hepatitis and HIV.
2. Describe Universal Precautions, Exposure Incident protocols, and personal protective equipment (PPE) requirements in accordance with OSHA standards.
3. Differentiate between cleaning, disinfection, and sterilization levels of decontamination and their specific applications in salon environments.
4. Compare EPA-registered hospital-grade disinfectant chemistry, immersion times, State Board sanitary protocols, and Safety Data Sheet (SDS) guidelines.
5. Identify major bones and muscle groups of the head, face, neck, chest, arms, hands, legs, and feet relevant to cosmetology services.
6. Describe the circulatory, nervous, and integumentary systems as they relate to head, face, hand, and foot procedures.

IV. **Methods of Presentation:**

Lecture and Discussion, Distance Education, Other (Specify), Discussion, Projects, Online instructor-provided resources, Other Methods: Information Sheets, Question and answer activities

V. **Course Content**

% of Course	Topic
35.000%	Bacteriology, Virology, & Universal Infection Control Principles: • Pathogenic and nonpathogenic bacteria classification, bacterial growth cycles, and spore-forming characteristics. • Viral transmission pathways, bloodborne pathogen risks, and hepatitis and Human

	Immunodeficiency Virus (HIV) infection dynamics. • Universal Precautions, OSHA Bloodborne Pathogens Standard, Exposure Incident protocols, and personal protective equipment (PPE) requirements. • Infection control principles, chain of infection, and body defense mechanisms in salon environments.
35.000%	Decontamination Levels, Disinfectant Chemistry, & State Board Safety Rules: • Levels of decontamination: defining and differentiating cleaning, disinfection, and sterilization procedures. • EPA-registered hospital-grade disinfectant chemistry, mixing protocols, contact/immersion times, and efficacy standards. • State Board safety mandates, single-use versus multi-use tool decontamination, and salon equipment sanitation procedures. • Workplace safety regulations, Safety Data Sheet (SDS) interpretation, and chemical hazard communication compliance.
30.000%	Human Anatomy & Physiology for Cosmetology Services: • Skeletal system anatomy: major bones of the head, face, neck, chest, arms, hands, legs, and feet. • Muscular system anatomy: origin, insertion, and action of key muscles in the scalp, face, neck, hands, and feet. • Circulatory and nervous systems: vascular supply and primary nerve pathways of the head, face, hands, and feet. • Integumentary system fundamentals as applied to cosmetology health, safety, and client service considerations.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: Online Participation: Evaluated through student engagement in weekly structured online discussion forum activities.
20%	Written assignments: Written Assignments: 3-4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Papers: Written Papers: 2–3 short research papers evaluating concepts of bacteriology, sanitation, health and safety, and physiology pertaining to the head, face, hands and arms
10%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
10%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
20%	Projects: Project: 1 digital case study project analyzing State Board concepts of bacteriology, sanitation, health and safety, and physiology pertaining to the head, face, hands and arms.
100%	Total

VII. **Sample Assignments:**
Workbook Assignment: Complete the Infection Control Principles and Practices chapter in the Milady workbook.
Study Guide: Complete the study guide utilizing the Milady Textbook. Discuss with classmates through discussion threads.

VIII. **Student Learning Outcomes:**

1. Explain the types and classifications of bacteria, the causes and transmission of hepatitis and Human Immunodeficiency Virus (HIV), and the role of Universal Precautions in preventing infection in cosmetology.
2. Differentiate between cleaning, disinfecting, and sterilizing, and describe disinfectant chemistry and sanitary protocols for decontaminating salon tools and implements in accordance with State Board regulations.
3. Describe the anatomy of the chest, neck, head, hands, and feet as it relates to cosmetology practices.

Substantial Change: COSMETOLOGY 10B, Related Science 1B

Units:	2.00
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	2.00
In-Class Lab:	0.00
Arranged:	0.00
Outside-of-Class Hours:	72.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable

I. **Catalog Description**

This course provides essential theory carefully formulated to prepare a student to pass the written Barbering, Cosmetology, Esthetics, Hair Styling and/or Nail Care State Board Examinations. Concepts of the State Board of Cosmetology Act and Regulations will be included as well as health and safety.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady Standard Barbering, 7th, Milady, Cengage © 2025, ISBN: 9798214080444
2. Milady Standard Barbering Workbook, 7th, Milady, Cengage © 2025, ISBN: 9798214499222
3. Milady Standard Cosmetology & Foundations Textbook, 14, Milady, Cengage © 2023, ISBN: 9780357871492
4. Milady Standard Cosmetology & Foundations Workbooks, 14, Milady, Cengage © 2023, ISBN: 9780357922170
5. Milady Standard Esthetics Fundamentals and Foundations Workbook, 12, Milady, Cengage © 2019, ISBN: 978-0-357482-84-1
6. Milady Textbook Esthetics Standard Fundamentals and Foundations, 12, Milady, Cengage © 2019, ISBN: 9780357263792
7. Milady Standard Foundations & Nail Technology Textbook, 8th, Milady, Cengage © 2021, ISBN: 9780357446867
8. Milady Standard Foundations & Nail Technology Workbooks, 8th, Milady, Cengage © 2021, ISBN: 9780357482865

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Outline the administrative structure, licensing requirements, and enforcement authority of the California Board of Barbering and Cosmetology.
2. Summarize the Barbering and Cosmetology Act and Board rules regarding scope of practice, establishment licensing, and individual practitioner responsibilities.
3. Identify disciplinary actions, administrative fines, and inspection protocols enforced by state board inspectors.
4. Differentiate cleaning, disinfection, and sterilization procedures for salon implements, tools, and multi-use equipment.
5. Detail establishment sanitary standards, cross-contamination prevention protocols, and clean linen storage requirements.
6. Explain client protection protocols, including health history screening, pre-service diagnostic awareness, and sanitary draping procedures.
7. Identify Occupational Safety and Health Administration (OSHA) standards governing salon workplace safety, hazard communication, and Safety Data Sheets (SDS).
8. Explain Food and Drug Administration (FDA) regulations regarding cosmetic ingredient safety, product labeling, and prohibited chemical substances.

IV. **Methods of Presentation:**

Lecture and Discussion, Distance Education, Discussion, Projects, Online instructor-provided resources, Other Methods: Information Sheets, Question and answer activities

V. **Course Content**

% of Course	Topic
35.000%	California Board of Barbering & Cosmetology Statutory Laws & Regulations: • Administrative structure, licensing classifications, and Board enforcement authority.

	• The Barbering and Cosmetology Act: scope of practice, establishment licensing, and practitioner rules. • State Board inspection procedures, administrative citations, warning letters, and fine schedules. • Individual licensee responsibilities, license renewal protocols, and display mandates.
35.000%	Establishment Health, Sanitation, Disinfection, & Client Protection: • Microchemistry of infection control: bacteriology, viruses, fungi, and blood-borne pathogens. • Cleaning, EPA-registered hospital-grade disinfection, and sterilization protocols for tools and implements. • Establishment of sanitary standards, clean towel/linen storage, disinfectant basin maintenance, and cross-contamination control. • Client protection protocols: health intake screening, pre-service consultation, and sanitary draping.
30.000%	Federal Regulatory Agencies, Workplace Safety, & Product Safety: • OSHA regulations: Hazard Communication Standard, Safety Data Sheets (SDS) review, and ventilation mandates. • Ergonomic health standards, toxic substance exposure limits, and practitioner Personal Protective Equipment (PPE). • FDA oversight: cosmetic ingredient safety, product labeling regulations, and prohibited chemical substances. • Environmental Protection Agency (EPA) standards for chemical disposal and salon air quality.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: Online Participation: Evaluated through student engagement in weekly structured online discussion forum activities.
20%	Written assignments: Written Assignments: 3-4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Papers: Written Papers: 2–3 short research papers evaluating concepts of the State Board of Cosmetology Act and Regulations.
10%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
10%	Projects: Project: 1 comprehensive digital project synthesizing State Board of Cosmetology Act regulations, health and safety protocols, and essential theoretical concepts required by the State Board.
100%	Total

VII. **Sample Assignments:**
Written assignment: Compose a paper explaining the importance of client safety as outlined by the California Board of Barbering and Cosmetology.
Class assignment: Complete a worksheet covering the California Board of Barbering and Cosmetology Act and Regulations. Answer the questions in detail relating to the Barbering and Cosmetology Act and Regulations in preparation for testing on the subject.

VIII. **Student Learning Outcomes:**

1. Explain the role of the California Board of Barbering and Cosmetology and the statutory laws and regulations governing cosmetology practice.
2. Describe health and safety requirements for cosmetology establishments, including sanitation, workplace safety, and client protection.
3. Identify the regulatory roles of OSHA, the FDA, and other governmental agencies related to cosmetology, workplace safety, and product safety.

Substantial Change: COSMETOLOGY 11A, Hair Cutting 1

Units:	2.00
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	2.00
In-Class Lab:	0.00
Arranged:	0.00
Outside-of-Class Hours:	72.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable

I. **Catalog Description**

This is the first haircutting class required for all students who wish to be licensed as a Barber, Cosmetologist, or Hairstylist by the State of California. This course is designed to teach beginning students how to effectively and properly describe and demonstrate the basic techniques of hair-cutting to create a variety of hair designs, which will include a 0-elevation one-length hair cut, a face-framing haircut, a 180-degree long-layered hair cut, and a 90-degree hair cut, and how to properly set up and maintain a Sanitary Maintenance Area necessary for all tools used.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady's Standard Cosmetology & Foundations Textbook, 14, ., Milady Publishing Company © 2023, ISBN: 9780357871492
2. Milady Standard Cosmetology & Foundations Workbooks, 14, ., Milady Publishing Company © 2023, ISBN: 9780357871492
3. Milady Standard Barbering and Milady Foundations Workbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214080444
4. Milady Barbering Standard Exam Review, 6th, Milady, Cengage © 2017, ISBN: 9781305100671
5. Milady Standard Barbering and Milady Foundations Workbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214499222

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Describe tool design, blade geometry, and ergonomic handling techniques for shears and texturizing shears.
2. Explain client consultation procedures, scalp analysis, draping safety, and protective measures during haircutting services.
3. Differentiate between cleaning, disinfection, and sterilization decontamination levels and their specific application to haircutting implements.
4. Describe EPA-registered hospital-grade disinfectant chemistry, contact times, and safety protocols for hair cutting tools, and comb sets.
5. Explain State Board workstation sanitation standards, single-use item disposal rules, and cross-contamination prevention guidelines.
6. Identify head form reference points, parting geometry, guidelines, and elevation angles used in precision haircutting.
7. Describe procedural steps, tension control, and guide placement for 0-degree blunt cuts, face-framing slides, 180-degree long layers, and square-layered haircuts.

IV. **Methods of Presentation:**

Lecture and Discussion, Discussion, Critique, Visiting Lecturers, Group Work, Online instructor-provided resources, Observation and Demonstration, Other Methods: Lecture/Discussion, Video/DVD

V. **Course Content**

% of Course	Topic
30.000%	Haircutting Tools, Ergonomic Handling Mechanics, & Client Protection Safety: • Tool design, blade geometry, tension adjustment, and maintenance for shears, thinning shears, clippers, trimmers, and razors.

	• Ergonomic handling techniques, hand/wrist positioning, posture alignment, and repetitive strain injury prevention. • Client consultation protocols, hair and scalp analysis, hair density/porosity assessment, and natural growth pattern evaluation. • Client protection measures, sanitary draping procedures, towel/cape barrier placement, and scalp safety precautions.
30.000%	Decontamination Levels, EPA Disinfectant Chemistry, & Workstation Sanitation: • Decontamination levels: defining, differentiating, and applying cleaning, disinfection, and sterilization to haircutting implements. • EPA-registered hospital-grade disinfectant chemistry, mixing protocols, contact/immersion times, and efficacy standards for blades and combs. • State Board sanitation mandates, haircutting workstation setup, tool tray sanitation, and single-use item disposal rules. • Workplace safety regulations, Safety Data Sheet (SDS) interpretation, hazard communications, and cross-contamination controls.
40.000%	Head Form Geometry, Elevation Angles, & Layered Haircutting Procedural Steps: • Head form reference points: apex, occipital bone, parietal ridge, crown, nape, parting geometry, and guideline placement. • Haircutting mechanics: elevation angles (0, 45, 90, 180 degrees), over-direction, projection angles, finger positioning, and tension control. • Procedural steps and sectioning geometry for 0-degree blunt cuts, face-framing slide cutting, 180-degree long layers, and square-layered haircuts. • Texturizing theory, weight line distribution, cross-checking techniques, and line customization for varied hair textures.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: Evaluated through student engagement in structured group discussions, active problem-solving exercises and small group activities.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Quizzes:5 Chapter Quizzes measured at 5% each, evaluating foundational terminology, key concepts, and basic theoretical principles.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
#1: Complete all questions from the Hair Cutting chapter in the Milady Standard Workbook and be prepared to discuss and explain responses in class.
#2: List hair cutting definitions from the Hair Cutting chapter in the Milady Standard Textbook and prepare to explain them in class.

VIII. **Student Learning Outcomes:**

1. Explain the use of hair cutting tools, ergonomic handling techniques, and client safety protection practices in accordance with industry standards.
2. Describe cleaning and disinfection procedures for tools, equipment, and work surfaces in accordance with State Board regulations.
3. Explain the setup and maintenance of a sanitary work area for hair cutting services.
4. Describe the principles, elevation angles, and procedural steps for 0-degree, face-framing, 180-degree long layer, and square-layered haircuts.

Substantial Change: COSMETOLOGY 11B, Hair Styling 1

Units:	2.00
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	2.00
In-Class Lab:	0.00
Arranged:	0.00
Outside-of-Class Hours:	72.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable

I. **Catalog Description**

This is the first hairstyling class required for all entering students who wish to be licensed as Barbers, Cosmetologists, and/or Hairstylists by the State of California. The theoretical and practical components of this course include instruction in wet and thermal hairstyling. The students will learn the basics of hairstyling, including techniques such as thermal styling, rollers, pin curls, and finger-waving. Students will be able to describe and demonstrate the fundamentals of historical hairstyling in accordance with the State Board of Barbering and/or Cosmetology.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady's Standard Cosmetology & Foundations Textbook , 14, Milady , Cengage © 2023, ISBN: 9780357871492
2. Milady Standard Cosmetology & Foundations Workbooks, 14, .Milady, Cengage © 2023, ISBN: 9780357922170
3. Milady Standard Barbering, 7th, Milady, Cengage © 2025, ISBN: 9798214080444
4. Milady Barbering Standard Exam Review, 6th, Milady, Cengage © 2017, ISBN: 9781305100671
5. Milady Standard Barbering Workbook, 7th, Milady, Cengage © 2025, ISBN: 9798214499222

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Explain client preparation, sanitary draping protocols, shampooing and conditioning procedures, and scalp manipulation mechanics.
2. Describe wet and thermal hairstyling principles, tool mechanics, product chemistry, and thermal safety precautions.
3. Describe the anatomical structure, keratin composition, pH balance, and growth cycles of human hair and scalp tissue.
4. Evaluate physical hair characteristics—including texture, density, porosity, elasticity, and growth patterns—to determine appropriate hairstyling service selection.
5. Identify contagious and non-contagious scalp disorders, fungal and parasitic infections, and hair shaft structural abnormalities.
6. Differentiate causes and classifications of hair loss (alopecia) and describe professional service contraindications and client referral protocols.

IV. **Methods of Presentation:**

Observation and Demonstration, Lecture and Discussion, Visiting Lecturers, Field Trips, Discussion, Projects, Group Work, Online instructor-provided resources, Other Methods: Demonstration, Lecture/Power Point, Video/DVD, Guest Artist

V. **Course Content**

% of Course	Topic
35.000%	Sanitary Draping Protocols, Shampooing, Conditioning, & Scalp Manipulations: • Sanitary draping procedures, client positioning, and treatment room/station preparation. • Shampooing and conditioning procedural steps, surfactant chemistry, and water temperature safety. • Scalp analysis and manipulation mechanics: physiological effects of relaxation and stimulating manipulations.

	• Product selection guidelines based on hair porosity, scalp condition, and chemical processing history.
35.000%	Hair & Scalp Anatomy, Keratin Composition, & Physical Characteristics: • Histological structure of the hair shaft (cuticle, cortex, medulla) and scalp skin layers. • Chemical composition of hair: keratin protein synthesis, amino acids, and chemical bond types (hydrogen, salt, disulfide). • Physical hair characteristics analysis: texture, density, porosity, elasticity, and natural growth patterns. • Hair growth phases (anagen, catagen, telogen) and environmental/chemical factors influencing hair health.
30.000%	Wet & Thermal Hairstyling Chemistry, Tool Mechanics, & Trichology Contraindications: • Wet hairstyling principles: hydrogen bond alteration, sectioning geometry, roller placement, and pin curl mechanics. • Thermal styling mechanics: thermal iron temperature calculations, press/curl geometry, and heat-protectant product chemistry. • Contagious and non-contagious scalp disorders, fungal and parasitic infections, and hair shaft abnormalities. • Alopecia classifications (androgenetic, areata, traction), service contraindications, and medical referral guidelines.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured group discussions, active problem-solving exercises and small group activities.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Quizzes: Quizzes: 5 Chapter Quizzes measured at 5% each, evaluating foundational terminology, key concepts, and basic theoretical principles.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Workbook: Complete the Hair Service Preparations chapter questions from the Milady Standard workbook and be prepared to discuss and explain responses in class.
2: Discuss modular shapes and design hair distribution in square and triangular patterns to create a hair style.

VIII. **Student Learning Outcomes:**
1. Explain shampooing, conditioning, draping, and fundamental wet and thermal hairstyling principles, including appropriate tools, products, and safety considerations.
2. Describe hair and scalp structure, composition, and characteristics and their relationship to hairstyling services.
3. Identify common hair and scalp disorders, diseases, infections, and forms of hair loss and describe related service considerations.

Substantial Change: COSMETOLOGY 11C, Hair Coloring 1

Units:	2.00
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	2.00
In-Class Lab:	0.00
Arranged:	0.00
Outside-of-Class Hours:	72.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable

I. **Catalog Description**

This is the first hair coloring class required for all entering students who wish to be licensed for Barbering and/or Cosmetology by the State Board of California. This course is an introduction to the theoretical, practical principles, and practice of hair coloring techniques, safety, chemistry as it relates to hair coloring and proper use of tools. Students will learn how to apply a patch test, strand test, temporary, semi-permanent, demi permanent, permanent hair coloring, virgin tint, hair retouch, frosting, and weaving techniques.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady Standard Barbering, 7th, Milady, Cengage © 2025, ISBN: 9798214080444
2. Milady Barbering Standard Exam Review, 6th, Milady, Cengage © 2017, ISBN: 9781305100671
3. Milady Standard Barbering Workbook, 7th, Milady, Cengage © 2025, ISBN: 9798214499222
4. Milady Standard Cosmetology and Foundations textbooks, 14th, Milady, Cengage © 2023, ISBN: 9780357871492
5. Milady Standard Cosmetology and Foundations workbooks, 14th, Milady, Cengage © 2023, ISBN: 9780357922170

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Explain primary, secondary, and tertiary color relationships, natural underlying pigment dynamics, and tone cancellation principles on the color wheel.
2. Differentiate between temporary, semi-permanent, demi-permanent, and permanent hair color categories based on dye molecule size, shaft penetration, and developer activation.
3. Describe cuticle, cortex, and medulla anatomical structures and their roles in pigment absorption, porosity levels, and lightener processing.
4. Analyze developer hydrogen peroxide volume strengths, lift capacities, oxidation chemical reactions, and formulation calculation rules.
5. Explain client consultation intake procedures, medical history screening, skin predisposition patch-testing mandates, and preliminary strand test evaluation protocols in accordance with State Board regulations.
6. Describe client barrier draping, scalp protection measures, Safety Data Sheet (SDS) interpretation, and EPA-registered disinfectant sanitation standards for chemical hair coloring services.

IV. **Methods of Presentation:**

Observation and Demonstration, Lecture and Discussion, Discussion, Critique, Projects, Field Trips, Visiting Lecturers, Online instructor-provided resources, Group Work, Other Methods: Lecture/Power Point, Demonstration, Video/DVD, Guest Artists

V. **Course Content**

% of Course	Topic
35.000%	Hair Shaft Histology, Melanin Degradation, & Developer Oxidation Chemistry: • Cuticle, cortex, and medulla anatomical structures, keratin protein integrity, and intercellular cement composition. • Porosity levels (compact, normal, high/porous), hair texture, density, and elasticity impact on pigment absorption and chemical processing. • Developer hydrogen peroxide (H2O2) volume strengths (10, 20, 30, 40 volume), percentage concentrations, and volume lift capacities.

	• Oxidation chemical reactions, natural melanin decolorization phases, artificial pigment deposition, and formulation calculation rules.
30.000%	Client Consultation Protocols, Health History Intake, & State Board Safety Mandates: • Comprehensive client consultation intake, medical/health history record analysis, and previous chemical service documentation. • Mandatory skin predisposition patch-testing procedures (24–48-hour application window) and allergic reaction evaluation in accordance with State Board regulations. • Preliminary strand-testing protocols: porosity checks, elasticity analysis, color result preview, and processing time verification. • Client barrier draping, scalp protection measures, Safety Data Sheet (SDS) chemical hazard review, and EPA-registered hospital-grade disinfectant sanitation standards.
35.000%	Color Theory Principles, 10-Level Scale, Tonal Directions, & Dye Categories: • Primary, secondary, and tertiary color wheel relationships, complementary color positioning, and tone cancellation dynamics. • Natural hair color level system (1 to 10 scale), underlying pigment dynamics, and pheomelanin versus eumelanin ratio variations. • Tonal direction classification: warm, cool, and neutral tones, and light reflection characteristics. • Dye molecule size, shaft penetration mechanics, developer activation, and longevity differences across temporary, semi-permanent, demi-permanent, and permanent hair color categories.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured group discussions, active problem-solving exercises and small group activities.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Quizzes: Quizzes: 5 Chapter Quizzes measured at 5% each, evaluating foundational terminology, key concepts, and basic theoretical principles.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**

#1: Complete the Hair Coloring chapter questions in the Milady Standard textbook and prepare to discuss findings in class, including how hair density, porosity, and texture affect color services.

#2: Discuss how highlights using bleach and foil with common stitch patterns will appear on different hair colors through group hands-on activities.

VIII. **Student Learning Outcomes:**

1. Explain principles of color theory, including the 10-level hair color scale, tonal directions, and hair color categories.
2. Describe hair shaft histology and its relationship to hair color formulation and chemical hair color services.
3. Explain principles of client consultation, health record intake, and client-protection protocols related to hair color services in accordance with State Board regulations.

Substantial Change: COSMETOLOGY 11D, Permanent Waving

Units:	2.00
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	2.00
In-Class Lab:	0.00
Arranged:	0.00
Outside-of-Class Hours:	72.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable

I. **Catalog Description**

This permanent wave class is required all entering students who wish to be licensed for Barbering and/or Cosmetology by the state of California. This course is designed to educate the students on permanent waving techniques and applications. It will provide a complete foundation for all permanent wave procedures. This class will enable the students to pass the California State Board of Barbering and/or Cosmetology exam.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady Standard Cosmetology & Foundations Textbook, 14, Milady, Milady Publishing Company © 2023, ISBN: 9780357871492
2. Milady Standard Cosmetology & Foundations Workbooks, 14, .Milady, Milady Publishing Company © 2023, ISBN: 9780357922170
3. Milady Standard Barbering and Milady Foundations Textbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214080444
4. Milady Standard Barbering and Milady Foundations Workbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214499222

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Explain key elements of a client consultation, including health history intake, previous chemical service analysis, and scalp examination.
2. Explain how hair porosity, elasticity, texture, and density influence permanent waving solution selection and processing time.
3. Identify physical and chemical hair conditions, such as severe breakage or metallic dye presence, that contraindicate permanent waving services.
4. Differentiate alkaline (cold waves), acid-balanced, and exothermic wave chemical formulations regarding pH levels, active reducing agents, and processing mechanics.
5. Recall physical wrapping principles, including rod sizing, base placement, parting width, and tension control.
6. Explain the chemical reduction and oxidation (neutralization) phases of the permanent waving process.
7. Summarize sectioning and procedural steps for executing a classic straight-back wrapping pattern.
8. Identify State Board safety standards, EPA-registered disinfectant protocols, and client protection procedures, including draping and protective barrier cream application during chemical services.

IV. **Methods of Presentation:**

Observation and Demonstration, Lecture and Discussion, Discussion, Critique, Visiting Lecturers, Group Work, Online instructor-provided resources, Other Methods: Lecture/Power Point, Demonstrations, Video/DVD, Guest Artist

V. **Course Content**

% of Course	Topic
30.000%	Client Consultation, Hair Diagnostics, & Service Contraindications: • Client consultation protocols: health history intake, scalp examination, and chemical history analysis. • Hair shaft diagnostics: porosity, elasticity, texture, density, and growth direction. • Solution selection mechanics based on hair physical condition and diagnostic testing.

	• Service contraindications: severe chemical breakage, metallic dye presence, and scalp abrasions.
40.000%	Permanent Waving Chemistry, Tool Mechanics, & Straight-Back Wrapping: • Chemical reduction phase: disulfide bond breakage, active reducing agents (thioglycolic acid, cysteamine), and pH levels across alkaline, acid-balanced, and exothermic wave formulations. • Chemical oxidation (neutralization) phase: hydrogen peroxide mechanics, disulfide bond reformation, and re-hardening. • Physical wrapping mechanics: rod selection, base placement (on-base, half-off base, off-base), parting width, end paper techniques, and tension control. • Sectioning panel geometry and procedural steps for executing a classic straight-back wrapping pattern.
30.000%	State Board Safety Regulations, Disinfection, & Client Protection: • State Board regulations, OSHA standards, Safety Data Sheets (SDS), and chemical safety. • EPA-registered hospital-grade disinfectant chemistry, implement sanitation, and chemical spill response. • Client protection procedures: protective barrier cream application, cotton strip placement, and chemical draping. • Practitioner health and safety: Personal Protective Equipment (PPE), ventilation, and chemical burn prevention.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	Topic
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured group discussions, active problem-solving exercises and small group activities.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Quizzes: Quizzes: 5 Chapter Quizzes measured at 5% each, evaluating foundational terminology, key concepts, and basic theoretical principles.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**

1: Complete the chemical texture services chapter in the Milady workbook and prepare to discuss findings in class.

2: Create flashcards using the terminology from the chemical texture services chapter in the Milady's Standard Textbook and prepare to discuss findings in class.

VIII. **Student Learning Outcomes:**

1. Explain client consultation, hair analysis, and hair condition considerations for permanent waving services.
2. Describe permanent waving principles, tool selection, chemical processing mechanics, and straight-back wrapping procedural steps.
3. Identify sanitation, safety, and client-protection requirements for permanent waving services.

Substantial Change: COSMETOLOGY 11E, Curly Hair Techniques 1

Units:	2.00
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	2.00
In-Class Lab:	0.00
Arranged:	0.00
Outside-of-Class Hours:	72.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable

I. **Catalog Description**
This class is required for all students who wish to be licensed for Barbering and/or Cosmetology by the State of California. This course is a class in curly hair care. Students will learn chemical and thermal hair straightening, soft perm techniques using the basic manipulative skills and proper application of thermal hair processing, curling, and chemical relaxing for excessively curly hair.

II. **Examples of Appropriate Text or Other Required Reading:**
(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)
1. Standard Barbering and Milady Foundations Textbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214080444
2. Milady Standard Barbering and Milady Foundations Workbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214499222
3. Milady Standard Cosmetology and Foundations Workbook, 14th, Milady, Cengage © 2023, ISBN: 9781439059234
4. Standard Cosmetology & Foundations Textbooks, 14th, Milady, Cengage © 2023, ISBN: 9781439059227

III. **Course Objectives**
Upon completion of this course, the student will be able to:
1. Differentiate between chemical relaxer formulations, processing strengths, and scalp protection measures based on hair texture and porosity analysis.
2. Explain the chemical process of lanthionization, processing time limits, and neutralizing protocols used to restore hair pH balance.
3. Identify client intake procedures, health history documentation, and hair/scalp contraindications for chemical relaxer and smoothing services.
4. Describe personal protective equipment (PPE), strand and patch testing procedures, and State Board sanitation guidelines for storing chemical products.
5. Define tool mechanics, heat settings, and protective product selection for soft pressing, hard pressing, and thermal iron styling.
6. Explain sequential procedures for sectioning, hair wrapping, and thermal tension control on textured hair.

IV. **Methods of Presentation:**
Lecture and Discussion, Observation and Demonstration, Visiting Lecturers, Discussion, Group Work, Online instructor-provided resources, Other Methods: Demonstration Video Hand outs Lecture Guest artist

V. **Course Content**

% of Course	Topic
35.000%	Chemical Relaxer Formulations, Lanthionization Principles, & Neutralization Protocols: Chemical relaxer active ingredient classifications, including sodium hydroxide, ammonium thioglycolate, and hydroxide formulations. Lanthionization chemistry, hair bond alteration, processing time limits, and scalp protective barrier application based on hair texture and porosity analysis. Neutralization chemistry, pH restoration, and halting chemical action through specialized neutralizing shampoo applications.
35.000%	Client Consultation Protocols, Hair & Scalp Assessment, & Infection Control Regulations: Client intake record documentation, health history screening, release forms, and communication

	strategies for chemical smoothing services. Hair porosity, elasticity, density, and scalp health assessments to identify service contraindications. Personal protective equipment (PPE) selection, client barrier draping, strand testing, patch testing, and State Board sanitation rules for chemical storage.
30.000%	Thermal Styling Mechanics, Pressing Techniques, & Textured Hair Wrapping Procedures: Thermal iron and pressing comb mechanics, temperature control settings, and protective thermal styling product selection. Soft pressing, hard pressing, and thermal press-and-curl execution principles on varying hair textures. Sectioning geometry, hair wrapping techniques, and physical tension control during thermal styling.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation In-Class Participation: Evaluated through student engagement in structured group discussions, active problem-solving exercises and small group activities.
20%	Homework Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Quizzes Quizzes: 5 Chapter Quizzes measured at 5% each, evaluating foundational terminology, key concepts, and basic theoretical principles.
20%	Exams/Tests Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Workbook assignment: Answer all questions from the curly hair techniques chapter of the workbook
Project: Create picture book of curly hair styles for different shaped faces, including short, medium, and long hair. Explain hair styles for rectangular shaped face using corrective methods and creating soft waves around face to create oval shape. be prepared to discus in class.

VIII. **Student Learning Outcomes:**
1. Explain chemical relaxer classifications, processing principles, and neutralization procedures.
2. Identify client consultation protocols, hair and scalp assessments, and infection control requirements for chemical relaxer and smoothing services.
3. Describe soft pressing, hard pressing, and hair-wrapping concepts and procedural steps.

Substantial Change: COSMETOLOGY 16, Nail Care 1

Units:	2.00
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	2.00
In-Class Lab:	0.00
Arranged:	0.00
Outside-of-Class Hours:	72.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable

I. **Catalog Description**

This is the first Nail Care class required for all entering students who wish to be licensed for Barbering, Cosmetology, and/or Nail Care by the State of California. This course provides an introduction to the basic manipulations skills in manicuring and pedicuring. The course includes the basic concepts of physiology pertaining to the hand and arm. This course is one of four in a series necessary to qualify a student to take the state Board of Barbering, Cosmetology, and/or Nail Care exam.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady's Standard Cosmetology Workbook, 14, .Milady, Milady Publishing Company © 2023, ISBN: 9780357922170
2. Milady Standard Foundations & Nail Technology Textbook, 8th, Milady , Cengage © 2021, ISBN: 9780357446867
3. Milady Standard Foundations & Nail Technology Workbooks, 8th, Milady , Cengage © 2021, ISBN: 9780357482865
4. Milady's Standard Cosmetology & Foundations Textbook, 14th , Milady , Cengage © 2023, ISBN: 9780357871492

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Identify natural nail structures, keratin composition, nail bed physiology, and factors influencing natural nail plate growth.
2. Differentiate common non-contagious nail disorders, fungal and bacterial nail infections, and professional service contraindications requiring medical referral.
3. Explain procedural steps, product chemistry, equipment mechanics, and treatment protocols for natural nail manicures and pedicures.
4. Describe physiological effects, pressure techniques, and safety considerations of hand, arm, foot, and lower leg massage movements.
5. Describe State Board sanitation mandates, EPA-registered hospital-grade disinfectant protocols, and decontamination procedures for manicuring tools and implements.
6. Summarize cleaning, disinfection, and maintenance record-keeping requirements for pedicure foot basins, whirlpool jets, and pipeless foot baths in accordance with State Board regulations.

IV. **Methods of Presentation:**

Observation and Demonstration, Visiting Lecturers, Lecture and Discussion, Group Work, Discussion, Online instructor-provided resources, Other Methods: Demonstration, Video/DVD, Guest Artists, Instructional aids (slides, flip charts), Attendance

V. **Course Content**

% of Course	Topic
35.000%	Natural Nail Anatomy, Keratin Physiology, & Nail Disorders/Contraindications: • Anatomical structures of the natural nail unit: nail matrix, nail bed, nail plate, eponychium, hyponychium, lunula, and cuticle. • Keratin protein synthesis, nail growth mechanics, physiological growth factors, and systemic/environmental influences. • Contagious and non-contagious nail disorders, fungal (onychomycosis) and bacterial

	(pseudomonas) nail infections. • Professional service contraindications, client health consultation screening, and medical referral guidelines.
35.000%	Manicure & Pedicure Principles, Product Chemistry, & Massage Mechanics: • Fundamental manicuring and pedicuring procedural steps, nail shaping, cuticle care, and enamel application techniques. • Product chemistry and function: cuticle softeners, nail conditioners, base coats, polishes, top coats, and specialty treatments. • Equipment mechanics, station setup, ergonomic practitioner positioning, and specialized foot and toenail care considerations. • Physiological effects, procedural techniques, and contraindications of hand, arm, foot, and lower leg massage movements.
30.000%	Sanitation, Disinfection Protocols, & Pedicure Foot Basin Maintenance Standards: • State Board sanitation mandates, EPA-registered hospital-grade disinfectant chemistry, contact times, and tool immersion procedures. • Single-use versus multi-use manicuring and pedicuring implement decontamination, storage, and disposal standards. • Cleaning, disinfection, and maintenance record-keeping requirements for whirlpool jets, pipeless foot baths, and pedicure basins. • Safety Data Sheet (SDS) compliance, chemical exposure precautions, and client safety protocols in natural nail care.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	Topic
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured group discussions, active problem-solving exercises and small group activities.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Quizzes: Quizzes: 5 Chapter Quizzes measured at 5% each, evaluating foundational terminology, key concepts, and basic theoretical principles.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Workbook Assignment: Complete the Manicurring and Pedicurring chapters in the workbook and prepare to discuss findings in class.
Textbook assignment : Complete the Nail Structure, Disorders and Diseases Chapter in the Textbook and prepare to discuss findings in class.

VIII. **Student Learning Outcomes:**
1. Identify natural nail structures, factors affecting nail growth, common nail disorders, diseases, infections, and service contraindications.
2. Explain fundamental manicure and pedicure concepts, including massage movements, treatments, products, equipment, and foot and toenail care considerations.

3. Describe sanitation, disinfection, and client safety requirements for manicure and pedicure services, equipment, implements, and foot baths in accordance with State Board regulations.

Substantial Change: COSMETOLOGY 18, Skin Care 1

Units:	2.00
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	2.00
In-Class Lab:	0.00
Arranged:	0.00
Outside-of-Class Hours:	72.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable

I. **Catalog Description**
Updating units

II. **Examples of Appropriate Text or Other Required Reading:**
(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady Textbook Esthetics Standard Fundamentals and Foundations , 12th, Milady, Cengage © 2019, ISBN: 9780357263792
2. Milady Standard Esthetics Fundamentals and Foundations Workbook, 12th, Milady, Cengage © 2019, ISBN: 978-0-357482-84-1
3. Milady Standard Cosmetology & Foundations Workbook, 14th, Milady, Cengage © 2023, ISBN: 9780357922170
4. Milady Cosmetology & Foundations Textbooks, 14th, Milady, Cengage © 2023, ISBN: 9780357871492

III. **Course Objectives**
Upon completion of this course, the student will be able to:

1. Explain client preparation, sanitary draping protocols, facial cleansing routines, and fundamental facial massage movements.
2. Identify primary skin types and common skin conditions during skin analysis to evaluate appropriate skin care product formulations and active ingredients.
3. Select home care product recommendations and post-service care guidelines based on client skin analysis results.
4. Describe facial measurement geometry, arch proportions, hair removal mechanics, and tool application principles for eyebrow shaping.
5. Summarize State Board safety regulations, EPA-registered disinfectant protocols, and personal protective equipment (PPE) requirements for esthetic services.

IV. **Methods of Presentation:**
Lecture and Discussion, Observation and Demonstration, Visiting Lecturers, Field Trips, Discussion, Group Work, Projects, Other Methods: Lectures/Slide Decks, Demonstrations, Video/DVD presentations of current practices, Guest Artists

V. **Course Content**

% of Course	Topic
30.000%	Draping Protocols, Cleansing Routines, & Facial Massage Mechanics: • Sanitary draping procedures, client positioning, and treatment room preparation. • Facial cleansing routines, skin surface preparation, and product removal techniques. • Physiological effects and procedural execution of five fundamental massage movements: effleurage, petrissage, friction, tapotement, and vibration. • Contraindications for facial massage, including active inflammation, severe acne, and skin lesions.
40.000%	Skin Diagnostics, Dermatology Conditions, & Product Chemistry: • Primary skin type analysis: dry, oily, combination, and normal skin characteristics. • Diagnostic evaluation of common skin conditions: acne, hyperpigmentation, aging, and sensitivity. • Product chemistry and functional ingredients in cleansers, toners, exfoliants, masks, and

	moisturizers. • Client home care recommendations, post-treatment guidelines, and customized product selection.
30.000%	Eyebrow Arching Geometry, State Board Regulations, & Disinfection Protocols: • Facial measurement geometry, arch proportion analysis, and eyebrow sectioning techniques. • Hair removal mechanics, safety precautions, and tool procedures for tweezing and waxing. • State Board regulations, EPA-registered hospital-grade disinfectant chemistry, and infection control standards. • Workplace safety protocols, Safety Data Sheets (SDS), and personal protective equipment (PPE) requirements.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	Topic
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured group discussions, active problem-solving exercises and small group activities.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Quizzes: Quizzes: 5 Chapter Quizzes measured at 5% each, evaluating foundational terminology, key concepts, and basic theoretical principles.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Workbook Assignment: Complete the Skin Care workbook assignment. Be prepared to describe a client consultation and a basic facial procedure.
Basic Facial: Explain the steps of a proper facial cleansing routine and basic massage movements within a a small group activity.

VIII. **Student Learning Outcomes:**
1. Explain client draping protocols and facial service procedures, including cleansing routines and fundamental massage movements.
2. Identify skin types and common skin conditions, and describe skin care products, their uses, and appropriate client recommendations.
3. Describe eyebrow arching procedural steps, safety protocols, and related tool application principles.
4. Explain health and safety practices, including sanitation and disinfection procedures for tools and equipment.

Substantial Change: COSMETOLOGY 20, Related Science 2

Units:	1.50
Total Instructional Hours (usually 18 per unit):	27.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.00
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable

I. **Catalog Description**

This class is required for all entering students who wish to be licensed for Barbering, Cosmetology, Esthetics, and/or Nail Care by the state of California. This course provides essential theory carefully formulated to prepare a student to pass the written State Board examination. Students are instructed in the basic concepts of health, safety and related chemistry.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady Standard Cosmetology & Foundations Textbooks, 14, .Milady, Cengage © 2023, ISBN: 9780357871492
2. Milady Standard Barbering, 7th, Milady, Cengage © 2025, ISBN: 9798214080444
3. Milady Standard Barbering Workbook, 7th, Milady, Cengage © 2025, ISBN: 9798214499222
4. Milady Standard Cosmetology & Foundations Workbooks, 14, Milady, Cengage © 2023, ISBN: 9780357922170
5. Milady Standard Esthetics Fundamentals and Foundations, 12, Milady, Cengage © 2019, ISBN: 9780357263792
6. Milady Standard Esthetics Fundamentals and Foundations Workbook, 12, Milady, Cengage © 2019, ISBN: 978-0-357482-84-1
7. Milady Standard Foundations & Nail Technology Textbook, 8th, Milady, Cengage © 2021, ISBN: 9780357446867
8. Milady Standard Foundations & Nail Technology Workbooks, 8th, Milady, Cengage © 2021, ISBN: 9780357482865

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Describe health, safety, and infection control regulations mandated by State Board and state regulatory agencies for cosmetology services.
2. Explain client-protection requirements, ergonomic positioning, and safety protocols during cosmetology service procedures.
3. Explain fundamental chemistry principles, chemical reactions, pH scales, and product safety guidelines applicable to salon formulations.
4. Interpret Safety Data Sheet (SDS) information, chemical hazard communications, and safe handling and disposal protocols for salon chemicals.
5. Identify essential nutrition concepts, macronutrients, and hydration requirements that support bodily health and skin, hair, and nail integrity.
6. Analyze the relationship between personal wellness, posture, physical stamina, and long-term professional cosmetology practice.

IV. **Methods of Presentation:**

Lecture and Discussion, Observation and Demonstration, Distance Education, Discussion, Projects, Online instructor-provided resources, Other Methods: Power Point, Video/DVD, Guest Artists, Information Sheets

V. **Course Content**

% of Course	Topic
35.000%	Health, Safety Regulations, Infection Control, & Ergonomic Principles: • State Board and state regulatory mandates, salon sanitation codes, and infection control

	standards. • Client-protection protocols, draping safety, ergonomic positioning, and injury prevention in cosmetology practice. • Disease transmission prevention, blood-borne pathogen awareness, and practitioner sanitation practices. • Workplace safety regulations, client consultation screening, and service contraindication protocols.
35.000%	Fundamental Chemistry Principles, Product Safety, & SDS Interpretation: • Fundamental chemistry principles: matter classification, elements, compounds, mixtures, solutions, suspensions, and emulsions. • The pH scale, acid-alkali balance, chemical oxidation/reduction, and product safety guidelines. • Safety Data Sheet (SDS) interpretation, chemical hazard communication standards, and exposure precautions. • Safe handling, storage, mixing, and disposal procedures for professional salon chemical formulations.
30.000%	Essential Nutrition, Personal Wellness, & Professional Practice Stamina: • Essential nutrition concepts: macronutrients, micronutrients, hydration, and nutritional guidelines for systemic health. • Impact of nutrition and hydration on skin, hair, and nail health and structural integrity. • Personal wellness strategies, posture mechanics, physical stamina, and career longevity in cosmetology. • Professional ethics, personal hygiene standards, and holistic health practices for beauty industry practitioners.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: Online Participation: Evaluated through student engagement in weekly structured online discussion forum activities.
20%	Written assignments: Written Assignments: 3-4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Papers: Written Papers: 2–3 short research papers evaluating concepts of health, safety and related chemistry.
10%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
10%	Projects: Project: 1 digital case study project analyzing State Board concepts of health, safety and related chemistry.
100%	Total

VII. **Sample Assignments:**
Written Assignment: Write a paper explaining the effects of chemicals used in the cosmetology industry on the human body and identifying common product ingredients used in the industry.
Flash cards: Create flashcards based on terminology related to chemicals, health and safety, and nutrition.

VIII. **Student Learning Outcomes:**

1. Describe health and safety precautions and client-protection requirements related to cosmetology services.
2. Explain fundamental chemistry and chemical safety principles, including the use and interpretation of Safety Data Sheet (SDS) information.
3. Identify essential nutrition concepts and their relationship to personal health and professional cosmetology practice.

Substantial Change: COSMETOLOGY 21A, Hair Cutting 2

Units:	1.50
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.50
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Prerequisite(s):	COSM 11A

I. **Catalog Description**

This is the second hair cutting class required for all entering students who wish to be licensed for Cosmetology, Barbering or Hairstylist by the State of California. This course is the continuation of Cosmetology 11A. The students will learn advanced techniques of haircutting with the use of different types of cutting tools.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady's Standard Cosmetology Theory Workbook, 14, .Milady, Milady Publishing Company © 2023, ISBN: 9780357871492
2. Milady Standard Cosmetology & Foundations Workbooks, 14, .Milady, Milady Publishing Company © 2023, ISBN: 9780357922170
3. Milady Standard Barbering and Milady Foundations workbooks , 7th, Milady, Cengage © 2025, ISBN: 9798214499222
4. Milady Standard Barbering and Milady Foundations Textbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214080444
5. Milady Standard Barbering Workbook, 6th, Milady, Cengage © 2017, ISBN: 978-1-305-10066-4

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Analyze head anatomy reference points, elevation angles (0, 45, 90, 180 degrees), and line direction dynamics in structural haircutting design.
2. Differentiate stationary and traveling guideline mechanics, distribution patterns, and natural inversion sectioning geometry for layered haircutting techniques.
3. Evaluate notch shear tooth spacing, point-cutting angles, slithering mechanics, and weight-removal ratios across varying hair density levels.
4. Compare texturizing shear applications, razor carving dynamics, and channel cutting techniques to select weight-reduction methods based on hair texture and growth patterns.
5. Apply State Board decontamination regulations, EPA-registered hospital-grade disinfectant contact times, multi-use tool sanitation, and single-use item disposal standards.
6. Evaluate haircutting tool ergonomics, posture alignment, body positioning mechanics, and client barrier draping standards for service preparation.

IV. **Methods of Presentation:**

Lecture and Discussion, Observation and Demonstration, Lab, Discussion, Critique, Projects, Visiting Lecturers, Group Work, Other Methods: Lecture/Discussion, Demonstration, Hands on application, Video/DVD

V. **Course Content**

% of Course	Topic
35.000%	Texturizing Shear Physics, Weight Removal, & Hair Density Dynamics: • Texturizing shear tooth geometry: notch spacing, tooth count ratios, and volume reduction percentages. • Weight-removal mechanics: point-cutting depth angles, slithering slide cutting, back-combing texturizing, and channel cutting physics. • Hair density and texture analysis: evaluating fine, medium, coarse textures, hair elasticity, and natural growth whorls/cowlicks.

	• Razor carving dynamics: razor blade angle, wet hair tension requirements, feathering mechanics, and soft edge perimeter creation.
30.000%	State Board Infection Control Regulations, Tool Sanitation, & Haircutting Ergonomics: • State Board infection control mandates: cleaning, EPA-registered hospital-grade disinfectant contact times, and multi-use tool sterilization protocols. • Shear and razor maintenance: tension adjustment, blade lubrication, disinfectant immersion, and single-use razor blade disposal standards. • Ergonomic body mechanics: posture alignment, wrist positioning, palm-to-palm shear control, and tripod thumb grip techniques. • Client protection and service setup: barrier draping protocols, neck strip application, scalp health screening, and workstation decontamination.
35.000%	Structural Haircutting Geometry, Elevation Angles, & Guideline Mechanics: • Head anatomy reference points: parietal ridge, occipital bone, apex, four corners, and crown sectioning boundaries. • Geometric line direction dynamics: horizontal weight line creation, vertical weight removal, and diagonal line movement. • Elevation angle mechanics: 0-degree solid form, 45-degree graduation, 90-degree uniform layering, and 180-degree increased layering. • Guideline mechanics and sectioning geometry: stationary guideline weight placement, traveling guideline distribution, and natural inversion sectioning patterns for layered haircutting designs.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	Topic
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Workbook: Complete all questions from the hair cutting chapter of your workbook.
Project: Design a style book with the various haircuts that you have completed in the classroom.

VIII. **Student Learning Outcomes:**
1. Analyze the structural principles, elevation angles, distribution patterns, and guideline mechanics required for 90-degree round, layered, and natural inversion haircuts.
2. Evaluate texturizing shear applications, weight-removal mechanics, and hair density dynamics to select texturizing techniques based on hair texture, density, and desired movement.
3. Apply State Board infection control regulations, client-protection protocols, and ergonomic tool-handling principles during haircutting service preparation.

Substantial Change: COSMETOLOGY 21B, Hair Styling 2

Units:	1.50
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.50
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Prerequisite(s):	COSM 11B

I. **Catalog Description**

This is the second hair styling class required for all entering students who wish to be licensed for Barbering, Cosmetology and/or Hairstylist by the State board of California. This course is a continuation of Cosmetology 11B. Students will learn advanced hairstyling theoretical and practical techniques, including the proper use of the blow drier and electric curling iron.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady Standard Cosmetology & Foundations Workbook , 14th, Milady, Cengage Learning Inc © 2023, ISBN: 9780357922170
2. Milady Standard Barbering, 7th, Milady, Cengage © 2025, ISBN: 9798214080444
3. Milady Barbering Standard Exam Review, 6th, Milady, Cengage © 2017, ISBN: 9781305100671
4. Milady Standard Barbering Workbook, 7th, Milady, Cengage © 2025, ISBN: 9798214499222
5. Milady Standard Cosmetology & Foundations Textbooks, 14th, Milady, Cengage © 2023, ISBN: 9780357871492

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Analyze facial bone structure, head shape, and hair growth patterns to determine balanced visual proportions for natural and special-occasion hairstyle designs.
2. Evaluate hair shaft elasticity, density, porosity, and natural wave pattern variations to select suitable styling products, tension levels, and tool configurations during client consultation.
3. Compare physical hair alteration mechanics and hydrogen bond re-formation across wet styling, pin curling, finger waving, and roller placement techniques.
4. Differentiate press-and-curl thermal mechanics, stove/comb temperature control variables, and protective oil applications required for highly textured, curly, and coarse hair shafts.
5. Detail safety protocols and technique adaptations for thermal marcel iron, flat iron, and press-comb operations across fine, medium, and chemically treated hair.
6. Analyze air-flow direction, concentrator nozzle mechanics, brush diameter choices, and tension dynamics required to achieve cuticle alignment and volume control during blow-drying.
7. Calculate safe thermal iron temperature ranges and exposure times based on chemical processing history, artificial color tone, and hair shaft porosity.
8. Construct technical sectioning patterns and base positioning plans (on-base, half-off base, off-base) to execute controlled curl formation and directional movement.

IV. **Methods of Presentation:**

Lecture and Discussion, Observation and Demonstration, Discussion, Field Trips, Projects, Visiting Lecturers, Group Work, Lab, Critique, Online instructor-provided resources, Other Methods: Power Point, Video/DVD, Guest Artists, Information Sheets

V. **Course Content**

% of Course	Topic
30.000%	Consultation Frameworks, Facial Geometry, & Design Principles: • Facial bone structure, head shape analysis, and visual proportion balancing for natural and special-occasion hairstyles.

	• Hair shaft elasticity, density, porosity, and natural wave pattern diagnostic evaluation. • Client consultation frameworks, lifestyle considerations, and customized hairstyle plan formulation. • Product selection criteria, hold factors, and tension dynamics based on hair physical characteristics.
35.000%	Wet Styling, Press-and-Curl Mechanics, & Thermal Processing: • Hydrogen bond alteration mechanics and physical hair re-formation in wet styling, pin curling, finger waving, and roller sets. • Stove/comb temperature control, thermal transfer mechanics, and press-and-curl execution on highly textured and coarse hair. • Protective oil application, heat barrier selection, and thermal damage prevention. • Safety protocols and technique adaptations for thermal marcel irons, flat irons, and pressing combs across varied hair textures.
35.000%	Blow-Drying Dynamics, Heat Control, & Sectioning Geometry: • Air-flow direction, concentrator nozzle placement, brush diameter selection, and cuticle alignment during blow-drying. • Thermal iron temperature calculations based on artificial color tone, porosity, and prior chemical processing. • Sectioning panel geometry and base placement mechanics (on-base, half-off base, off-base) for curl control and movement. • Procedural execution of directional blow-drying, root volume creation, and thermal styling finishing techniques.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Workbook: Students will complete questions in the Principles of hair Design chapter.
Project: Students will create a style book in categories of short, medium and long hairstyles.

VIII. **Student Learning Outcomes:**

1. Explain hairstyling consultation and design principles for natural and special-occasion hairstyles based on hair characteristics, facial features, and desired results.
2. Describe wet, press-and-curl, and thermal hairstyling methods and their uses for different hair types and textures.
3. Analyze blow-drying and thermal iron procedural mechanics, heat control variables, and sectioning patterns based on hair characteristics and desired styling results.

Substantial Change: COSMETOLOGY 21C, Hair Coloring 2

Units:	1.50
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.50
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Prerequisite(s):	COSM 11C

I. **Catalog Description**

This is the second hair coloring class required for students who wish to be licensed for Barbering or Cosmetology in the State of California. The student will learn how color affects our lives. Students will expand their knowledge of hair colors, including henna, tints, and bleaches. The class provides hair color theory and hands-on workshops in hair color applications, including highlighting with foils. This class offers a complete foundation for color and bleaching procedures.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady's Standard Cosmetology and Foundations textbooks, 14th, Milady, Cengage © 2023, ISBN: 9780357871492
2. Milady's Standard Cosmetology and Foundation Workbook, 14th, Milady, Cengage © 2023, ISBN: 9780357922170
3. Milady Standard Barbering and Milady Foundations Textbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214080444
4. Milady Standard Barbering Workbook, 7th, Milady, Cengage © 2025, ISBN: 9798214499222

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Analyze primary, secondary, and tertiary color principles, opposing undertones, and the Law of Color to determine neutralizing or enhancing color formulations.
2. Evaluate hair porosity, natural level, percentage of unpigmented (gray) hair, and underlying pigment during hair analysis to guide target shade selection.
3. Calculate developer volume strength and formulation ratios using manufacturer color charts and level system calculations.
4. Explain client consultation protocols, health history screening, and preliminary strand test and predisposition (patch) test procedures per State Board safety rules.
5. Compare chemical compositions, alkalizing agents, developer requirements, and cuticle penetration mechanics across temporary, semi-permanent, demi-permanent, and permanent hair color products.
6. Differentiate lightener chemistry (oil, cream, powder), alkalizing boosters, and high-lift color mechanisms regarding melanin decolorization stages.
7. Select customized hair color and lightener formulations based on initial hair shaft condition, scalp sensitivity, and target tonal results.
8. Construct sectioning patterns, foil weaving/slicing placement plans, and application method strategies (virgin, retouch, color melt) tailored to client desired results.

IV. **Methods of Presentation:**

Group Work, Lab, Lecture and Discussion, Observation and Demonstration, Discussion, Projects, Visiting Lecturers, Online instructor-provided resources, Other Methods: Powerpoint presentation, Video/DVD, and Guest Artists

V. **Course Content**

% of Course	Topic
30.000%	Color Theory, Hair Shaft Diagnostics, & Formulation Math:

	• The Law of Color: primary, secondary, and tertiary color wheel principles, tonal values, and opposing undertones. • Hair shaft diagnostics: porosity, elasticity, natural level determination, underlying warm pigment, and percentage of unpigmented (gray) hair. • Developer volume selection (10, 20, 30, 40 volume), lift versus deposit capabilities, and oxidation mechanics. • Formulation calculations, mixing ratios, and target shade selection using manufacturer color charts.
35.000%	Consultation Protocols, Safety Testing, & Color Chemistry Categories: • Client consultation frameworks, chemical service history evaluation, and scalp diagnostic screening. • State Board safety mandates: predisposition (patch) test procedures, FDA regulations, and strand test evaluation. • Chemical compositions and alkalizing agents across temporary, semi-permanent, demi-permanent, and permanent hair color lines. • Cuticle penetration mechanics, cortex pigment deposition, and natural melanin alteration across product categories.
35.000%	Lighteners, Highlighting Geometry, Sectioning, & Application Methods: • Lightener chemistry (oil, cream, powder), pH levels, alkalizing boosters, and the 10 stages of natural decolorization. • Highlighting and dimensional color techniques: foil weaving, slicing, freehand balayage, and sectioning geometry. • Application procedural steps: virgin lightener, retouch application, color melt, and toner/gloss formulation. • Post-color chemical neutralization, cuticle re-sealing, and client hair care maintenance recommendations.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	Topic
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Workbook: Complete questions in the Hair Coloring chapter. Students will be ready to discuss their findings in class, conduct a thorough client consultation, and perform the desired color service.
Project: Analyze the hair, determine the appropriate color product to use, and complete the color service.

VIII. **Student Learning Outcomes:**

1. Explain how hair color theory, hair characteristics, and color charts guide hair color formulation and selection.
2. Describe client consultation and preliminary testing principles and compare temporary, semi-permanent, demi-permanent, and permanent hair color products and their effects.
3. Select hair color formulations, highlighting products, sectioning placement, and application techniques based on hair characteristics, service considerations, and desired results.

Substantial Change: COSMETOLOGY 21E, Curly Hair Techniques 2

Units:	2.00
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	2.00
In-Class Lab:	0.00
Arranged:	0.00
Outside-of-Class Hours:	72.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Advisory(s):	COSM 11E

I. **Catalog Description**
This class is required for all students who wish to be licensed for Barbering and/or Cosmetology by the State of California. This course is a class in curly hair care. Students will learn chemical and thermal hair straightening, soft perm techniques using the basic manipulative skills and proper application of thermal hair processing, curling, and chemical relaxing for excessively curly hair.

II. **Examples of Appropriate Text or Other Required Reading:**
(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)
1. Milady Standard Cosmetology and Foundations Workbook, 14, Milady, Cengage © 2023, ISBN: 9781439059234
2. Milady Standard Cosmetology & Foundations Textbooks, 14, Milady, Cengage © 2023, ISBN: 9781439059227
3. Milady Standard Barbering Workbook, 6th, Milady, Cengage © 2017, ISBN: 978-1-305-10066-4
4. Milady Standard Barbering, 6th, Milady, Cengage © 2017, ISBN: 978-1-3051-0055-8
5. Milady Barbering Standard Exam Review, 6th, Milady, Cengage © 2017, ISBN: 9781305100671

III. **Course Objectives**
Upon completion of this course, the student will be able to:
1. Explain and analyze soft permanent waving techniques, including procedures, tools, and expected results.
2. Explain and analyze chemical hair relaxing procedures, including product types, application processes, and expected results.
3. Explain and analyze flat ironing techniques for curly hair, including procedures, tools, and expected results.
4. Explain and analyze products used to chemically straighten and curl hair.
5. Explain and analyze the procedures involved in both soft pressing and hard pressing.

IV. **Methods of Presentation:**
Lecture and Discussion, Observation and Demonstration, Discussion, Critique, Visiting Lecturers, Group Work, Other Methods: Demonstration Video Lecture Hand outs Guest artist

V. **Course Content**

% of Course	Topic
20.000%	Describe a soft curl permanent wave, virgin relaxer, and relaxer retouch service on curly hair.
20.000%	Recognize the different chemical formulations used in relaxing curly hair. Types of chemical relaxers: Sodium hydroxide, lithium hydroxide, potassium hydroxide, ammonium thioglycolate, sodium sulfate, and ammonium bisulfite. The difference between base and no base relaxers, no lye relaxers, relaxer strength, timing, and neutralization.
20.000%	Distinguish between: Soft press, Hard press, and hair wrapping.
20.000%	Describe the chemical process in hair relaxation and client safety as it relates to: Lye relaxers, No lye relaxers, Thio relaxers, Hydroxide relaxers, Neutralization, Smoothing treatments, Patch test, and Metallic salts test.

20.000%	Explain how to conduct a thorough client consultation and the proper sanitary maintenance area for a chemical relaxer.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Work: Small group activities
20%	Exams/Tests: Quizzes and tests
20%	Homework: Written assignments
20%	Final exam: Written exam
20%	Class Participation: Discussion threads
100%	Total

VII. **Sample Assignments:**
Workbook Assignment: Answer all questions pertaining to the curly hair techniques chapter.
Project: Create picture book of curly hair styles for different shaped faces, including short, medium, and long hair. Design and demonstrate hair styles for rectangular shaped face using corrective methods and creating soft waves around face to create oval shape. be prepared to discus in class.

VIII. **Student Learning Outcomes:**
1. Analyze bacteriology, sterilization, and sanitation principles as they relate to curly hairstyling services as evaluated through written and hands-on group assessments.
2. Analyze and explain soft permanent waving techniques, including procedures, tools, and expected results as evaluated through written and hands-on group assessments.
3. Analyze and explain flat ironing techniques, including soft and hard press methods as evaluated through written and hands-on group assessments.

Substantial Change: COSMETOLOGY 26, Nail Care 2

Units:	1.50
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.50
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Prerequisite(s):	COSM 16

I. **Catalog Description**

This is the second nail care class required for all entering students who wish to be licensed for Cosmetology and/or Nail Care by the State of California. The student will learn State Board Rules and regulations, safety techniques and sanitation for Nails Care as well as the application of nail tips, nail wraps, and gel polish manicures.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady Standard Foundations & Nail Technology Textbook, 8th, Milady , Cengage © 2021, ISBN: 9780357446867
2. Milady Standard Cosmetology & Foundations Textbooks, 14th, Milady, Cengage © 2023, ISBN: 9780357871492
3. Milady Standard Cosmetology & Foundations Workbooks, 14th, Milady, Cengage © 2023, ISBN: 9780357922170
4. Milady Standard Foundations & Nail Technology Workbooks, 8th, Milady, Cengage © 2021, ISBN: 9780357482865

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Differentiate state regulatory board rules, EPA-registered hospital-grade disinfectant protocols, and sanitation standards for nail implements, foot basins, and work surfaces.
2. Identify nail disorders, infectious diseases, and contraindications that require service refusal or medical referral.
3. Outline client-protection requirements, including health record intake review, practitioner Personal Protective Equipment (PPE), and ventilation control during nail services.
4. Compare chemical compositions, polymer curing mechanics, and removal procedures across gel polish, traditional lacquers, resins, and fabric wraps.
5. Evaluate nail tip sizing, stress-area reinforcement, and extension system selections based on natural nail plate morphology and client wear requirements.
6. Contrast dry manicure techniques (electric file e-file protocols and manual dry cuticle care) with traditional water-based manicures regarding adhesion and longevity.
7. Explain nail plate histology, growth mechanics, and surface preparation steps required to optimize product adhesion while preventing keratin damage or thinning.
8. Select customized nail service protocols, product formulations, and precautionary steps based on client nail health, chemical sensitivities, and lifestyle factors.

IV. **Methods of Presentation:**

Lab, Lecture and Discussion, Observation and Demonstration, Other (Specify), Visiting Lecturers, Group Work
Other Methods: Demonstrations Lecture/Power Point Guest Artists Hand outs Video/DVD

V. **Course Content**

% of Course	Topic
30.000%	Sanitation, Infection Control, Contraindications, & State Regulations: • State Board regulations, OSHA standards, Safety Data Sheets (SDS), and salon ventilation mandates.

	• EPA-registered hospital-grade disinfectant chemistry, immersion protocols, and implement sanitation. • Pathogenic bacteriology, viral pathogens, fungal infections, and nail diseases. • Nail plate disorders, structural deformities, contraindications, and medical referral protocols. • Client health history intake, pre-service diagnostic screening, and practitioner PPE requirements.
40.000%	Nail Product Systems, Polymer Chemistry, & Comparative Mechanics: • Chemical composition and polymerization curing mechanics of UV/LED gel polishes, resins, and wraps. • Comparative breakdown of traditional lacquers, gel systems, fabric wraps, and dip powders. • Nail tip morphology, sizing mechanics, adhesive chemistry, and stress-area reinforcement. • Dry manicure mechanics (e-file cuticle care and manual dry care) versus traditional water-based manicures. • Chemical removal procedures, solvent safety, and prevention of natural nail plate damage.
30.000%	Nail Histology, Plate Preparation, & Service Protocols: • Histology of the nail unit: matrix, nail bed, eponychium, hyponychium, free edge, and cuticle tissue. • Nail growth mechanics, keratin structure, and natural nail plate integrity preservation. • Dehydration, etching, primer chemistry, and adhesion optimization. • Customized service protocol selection based on client nail health, lifestyle, and chemical sensitivities.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Workbook: Complete questions in the chapter Nail Tips and Forms in the workbook.
Workbook: Complete questions in the Nail Extensions and Resin Systems chapter in the workbook.

VIII. **Student Learning Outcomes:**
1. Apply state board sanitation, disinfection, contraindication, and client-protection regulations to evaluate nail service safety scenarios.
2. Compare nail tip and extension systems, gel polish, dry manicures, resins, and wraps, including their uses and desired results.
3. Explain nail service protocols and safety precautions based on client nail conditions, product characteristics, and nail plate preparation requirements.

Prerequisite / Corequisite Checklist and Worksheet

Cosmetology 26
Prerequisite: Cosmetology 16

SECTION 1 - CONTENT REVIEW: If any criterion is not met, the prerequisite will be disallowed.

Criterion	Met	Not Met
1. Faculty with appropriate expertise have been involved in the determination of the prerequisite, corequisite or advisory.	X	
2. The department in which the course is (will be) taught has considered course objectives in accordance with accreditation standards.	X	
3. Selection of this prerequisite, corequisite or advisory is based on tests, the type and number of examinations, and grading criteria.	X	
4. Selection of this prerequisite, corequisite or advisory is based on a detailed course syllabus and outline of record, related instructional materials and course format.	X	
5. The body of knowledge and/or skills which are necessary for success before and/or concurrent with enrollment have been specified in writing.	X	
6. The course materials presented in this prerequisite or corequisite have been reviewed and determined to teach knowledge or skills needed for success in the course requiring this prerequisite.	X	
7. The body of knowledge and/or skills necessary for success in the course have been matched with the knowledge and skills developed by the prerequisite, corequisite or advisory.	X	
8. The body of knowledge and/or skills taught in the prerequisite are not an instructional unit of the course requiring the prerequisite.	X	
9. Written documentation that steps 1 to 8 above have been taken is readily available in departmental files.	X	

SECTION II - ADDITIONAL LEVEL OF SCRUTINY:

In addition to the affirmation of content review listed in section I, an additional level of scrutiny is also required. The level of scrutiny depends on which type of prerequisite is involved. There are six types and each is listed below. Please identify which one is being used to justify the proposed prerequisite. The additional level of scrutiny corresponding to each type of prerequisite is identified below.

Type 1: Standard Prerequisite (required prerequisite at UC or CSU)

__ Identify three UC or CSU campuses that offer the equivalent course with the equivalent prerequisite.

List schools here:

Complete the Prerequisite Worksheet

X Type 2: Sequential within and across disciplines (e.g., Physics 7, 8, 9, …)

Complete the Prerequisite Worksheet

Type 3: Course in communication or computational skills as prerequisite for course other than another skills course (e.g., English 1 prerequisite for Anatomy 1)

__ **Complete the Prerequisite Worksheet**

Complete Data Analysis

__ Type 4: Program prerequisites

Prerequisite must be required for at least one of the courses in the program. Explain:

__ Type 5: Health and Safety

Students who lack the prerequisite might endanger themselves, other students or staff. Explain:

Type 6: Recency and other measures of readiness (miscellaneous)

__ **Data must be collected according to sound research principles in order to justify such prerequisites.**

Complete the Prerequisite Worksheet

Prerequisites using Content Review

In order to properly justify/substantiate any prerequisite, we need to first determine what skills are necessary for students to be successful (skills without which they will likely not succeed (i.e., pass the course)).

- Keep in mind that "success" in the course means "passing" the course. "Success" does not mean "more likely to get a B or higher".

Once we've identified what are the "entrance skills" necessary for success, we then need to look at the "exit skills" (objectives) of our existing courses to determine which of our courses sufficiently prepares students (based on the entrance skills) to be successful in the course in question.

- It is highly unlikely that there will be a "1-to-1 relationship" between the entrance skills and exits skills.
    - Course A, for example, may have 10 objectives, but perhaps only 5 (or even just 1) are essential for success in Course B. Only the relevant exit skills should be used to justify/substantiate a prerequisite.

Completing the prerequisite worksheet:

The entrance skills must be worded as SKILLS. "What skills do students need to have BEFORE the course begins in order to be successful?"

For example:

- "Learn how to read college level textbooks" is NOT an entrance skill.
- "Ability to read college level textbooks" IS an entrance skill.

Once the entrance skills are determined, we can then figure out which course(s) are necessary as prerequisites (based on matching up the exit skills (objectives) of that course(s) with the entrance skills of the course in question).

Prerequisite Worksheet

ENTRANCE SKILLS FOR **Cosmetology 26**

(What the student needs to be able to do or understand BEFORE entering the course in order to be successful)

A)	Identify the four natural nail shapes
B)	Demonstrate the proper use of implements, cosmetics, and materials used in manicuring.
C)	List the various disorders and irregularities of nails.
D)	List the safety precautions for manicuring.
E)	
F)	
G)	
H)	

EXIT SKILLS (objectives) FOR **Cosmetology 16**

(What the student has the demonstrated ability to do or understand AFTER successful completion of this course)

1.	Identify the four natural nail shapes
2.	Demonstrate the proper use of implements, cosmetics, and materials used in manicuring.
3.	List the various disorders and irregularities of nails.
4.	List the safety precautions for manicuring.
5.	
6.	
7.	
8.	

	ENTRANCE SKILLS FOR **Cosmetology 26**								
EXIT SKILLS FOR Cosmetology Cosmetology 16		A	B	C	D	E	F	G	H
	1	X							
	2		X						
	3			X					
	4				X				
	5								
	6								
	7								
	8								

Substantial Change: COSMETOLOGY 28A, Skin Care 2A

Units:	1.50
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.50
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Pre/Corequisite(s):	COSM 18

I. **Catalog Description**

This is the second course required for Cosmetology and/or Esthetics licensing. The students will demonstrate the application of both individual and strip eyelashes, and the proper method of hair removal, waxing, eyebrow mapping, tinting eyebrows, and lashes, as required by the state of California. This course focuses on the physiology and histology of the skin, including skin disorders and diseases.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady Standard Esthetics Fundamentals & Foundations Textbooks, 12th, Milady, Cengage © 2019, ISBN: 9780357263792
2. Milady Standard Cosmetology, 14th , Milady, Milady Publishing Company © 2023, ISBN: 9780357999721
3. Milady Cosmetology Standard & Foundations Workbook, 14th, Milady, Cengage © 2023, ISBN: 9780357922170
4. Milady Standard Esthetics Fundamentals & Foundations Workbooks, 12th, ., Cengage © 2019, ISBN: 9780357482841
5. Milady Cosmetology Standard & Foundations Textbooks, 14th, Milady, Cengage © 2023, ISBN: 9780357871492

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Apply State Board decontamination protocols, EPA-registered hospital-grade disinfectant chemistry, immersion contact times, and multi-use implement sanitation procedures during lash, brow, and hair-removal services.
2. Analyze client consultation records, skin health indicators, sensitivity factors, and contraindication warnings to determine service precautions.
3. Select soft wax, hard wax, tweezing, and chemical epilation methods based on skin sensitivity, hair texture, and hair-growth directional grain.
4. Analyze facial bone architecture, brow symmetry, eye geometry, and client feature proportions to determine customized eyebrow-shaping guidelines.
5. Evaluate skin lesions, inflammatory disorders, topical medication usages, and skin barrier disruptions to identify service contraindications.
6. Differentiate between skin conditions requiring service modifications and medical dermatological conditions requiring client referral.
7. Analyze oxidative color chemistry, patch-testing protocols, processing times, and developer strengths for lash and brow tinting services.
8. Apply adhesive chemistry principles, lash isolation concepts, strip and cluster placement rules, and ocular protection protocols for artificial eyelash services.

IV. **Methods of Presentation:**

Lecture and Discussion, Observation and Demonstration, Visiting Lecturers, Lab, Critique, Discussion, Group Work, Other Methods: Power Point, Video/DVD presentation of current practices, Guest Artists, Information and procedure sheets

V. **Course Content**

% of Course	Topic

25.000%	Decontamination Science, Client Consultation Protocols, & Safety Regulations: • EPA-registered hospital-grade disinfectant chemistry, active ingredients, immersion contact times, and efficacy spectrums. • State Board sanitation and disinfection regulations, multi-use implement decontamination procedures, and single-use item disposal mandates. • Comprehensive client health history intake, skin sensitivity evaluation, patch-testing protocols, and contraindication warning identification. • Personal protective equipment (PPE) selection, cross-contamination prevention controls, and client barrier protection standards.
25.000%	Hair-Removal Methodologies, Epilation Physics, & Eyebrow-Shaping Geometry: • Soft wax, hard wax, tweezing, and chemical epilation chemistry, temperature calibration, and application mechanics. • Skin elasticity assessment, hair texture analysis, and hair-growth directional grain mapping for epilation services. • Facial bone architecture analysis, brow symmetry calculation, eye geometry evaluation, and feature proportion balancing. • Post-epilation skin barrier restoration care, soothing formulation selection, and home-care guidance.
25.000%	Dermatological Pathology, Skin Condition Diagnostics, & Medical Referral Guidelines: • Analysis of skin lesions, inflammatory disorders, vascular conditions, and skin barrier disruptions. • Topical and systemic medication interactions (retinoids, blood thinners, Accutane) and thermal/chemical service restrictions. • Protocol differentiation between service modifications, temporary service postponements, and mandatory medical dermatological referrals. • Client consultation documentation, informed consent records, and liability release procedures for specialized skin services.
25.000%	Lash & Brow Color Chemistry, Artificial Eyelash Mechanics, & Ocular Safety: • Oxidative color chemistry, hair shaft porosity evaluation, developer strengths, and processing timing for lash and brow tinting. • Artificial eyelash mechanics: strip, cluster, and individual lash adhesive chemistry, bonding dynamics, and removal safety. • Ocular anatomy, eye sensitivity screening, patch-testing protocols, and eye-shape enhancement design. • State Board ocular protection mandates, chemical emergency flushing procedures, and client safety compliance.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.

20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Workbook: Complete the Hair Removal chapter in the workbook. Be ready to discuss their findings in class and plan the steps for a facial with electrical modality.
Client Consultation: Complete a client consultation by reviewing the client's history form and record card, and select the proper products before performing hair removal.

VIII. **Student Learning Outcomes:**
1. Apply client consultation, safety, sanitation, and contraindication principles to lash, brow, and hair-removal services in accordance with State Board regulations.
2. Select hair-removal methods and eyebrow-shaping techniques based on client skin sensitivity, facial anatomy, and service specifications.
3. Analyze common skin conditions and contraindications that require service modification, restriction, or client referral.
4. Apply theoretical principles and safety protocols for lash and brow services, including tinting chemistry and artificial eyelash application.

Substantial Change: COSMETOLOGY 28B, Skin Care 2B

Units:	1.50
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.50
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Prerequisite(s):	COSM 18

I. **Catalog Description**

This course is required for Cosmetology or Esthetics licensing. The student will learn to perform electrical and chemical facials and demonstrate the use of electrical facial machines.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Standard Foundations W/Esthetics Fundamentals , 12th, Milady , Cengage © 2019, ISBN: 9780357263792
2. Milady Standard Cosmetology & Foundations Workbooks, 14th, Milady, Cengage © 2023, ISBN: 9780357871492
3. Milady's Standard Cosmetology & Foundations Textbook , 14th, Milady, Cengage © 2023, ISBN: 9780357871492
4. Standard Esthetics: Fundamentals Workbook, W/ Foundations Workbook, 12th, Milady, Cengage © 2019, ISBN: 978-0-357482-84-1

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Analyze electrotherapy physics, polarity mechanics, cellular physiological effects, and contraindications for facial device services.
2. Apply galvanic current, Tesla high-frequency, and microcurrent principles to select facial treatment parameters based on client skin conditions.
3. Compare rotary brush exfoliation, suction machine physics, magnifying lamp diopter magnification, and Woods lamp fluorescence analysis to determine equipment applications for specific skin types.
4. Differentiate between direct high-frequency, indirect high-frequency, desincrustation, and iontophoresis protocols based on skin sebum production and hydration levels.
5. Apply State Board decontamination protocols, EPA-registered hospital-grade disinfectant chemistry, equipment sterilization standards, and electrical safety measures to treatment room preparation.
6. Evaluate facial machine maintenance schedules, electrical cord safety inspection, water reservoir sanitation, and client protection protocols in accordance with State Board mandates.

IV. **Methods of Presentation:**

Lab, Lecture and Discussion, Observation and Demonstration, Discussion, Field Trips, Visiting Lecturers, Group Work, Critique, Other Methods: Power Point, Video presentation of current practices, Guest Artists, Information and procedure sheets, Hands on application

V. **Course Content**

% of Course	Topic
35.000%	Electrotherapy Physics, Polarity Mechanics, & Physiological Device Principles: • Electrical current physics: Direct Current (DC), Alternating Current (AC), Hertz frequency, voltage, amperage, and wattage parameters. • Galvanic current electrotherapy physics: positive pole (anode) acid reaction versus negative pole (cathode) alkaline reaction mechanics. • Cellular physiological effects: iontophoresis chemical penetration, desincrustation sebum saponification, microcurrent ATP stimulation, and Tesla high-frequency thermal/germicidal dynamics.

	• Clinical indication evaluation, physiological contraindication screening (pacemakers, metal implants, pregnancy, epilepsy), and safety precautions for facial device applications.
35.000%	Facial Equipment Modalities, Comparative Device Physics, & Service Protocols: • Rotary brush mechanical exfoliation physics: bristle texture selection, rotation speed control (RPM), and skin friction management. • Suction machine vacuum physics, spray mist toners, magnifying lamp diopter magnification levels, and Woods lamp fluorescence analysis. • Direct versus indirect high-frequency application mechanics, ozone production, vascular stimulation, and post-extraction healing acceleration. • Comparative technology analysis: matching device parameters, electrode selection, and treatment protocols to client skin types, sebum levels, and sensitivity thresholds.
30.000%	Treatment Room Ergonomics, Decontamination Science, & Machine Maintenance Protocols: • State Board decontamination regulations, EPA-registered hospital-grade disinfectant chemistry, active ingredients, contact times, and electrical device sanitation. • Machine maintenance schedules: electrical cord inspection, glass electrode sterilization, water reservoir descaling, and suction tubing decontamination. • Treatment room setup ergonomics: equipment positioning, power surge protection, ground fault circuit interrupter (GFCI) safety, and client comfort controls. • Client consultation intake documentation, informed consent records, electrical safety disclosures, and client barrier protection standards.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	Topic
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Workbook: Students will complete the workbook chapter on facial devices and technology. Students will be ready to discuss their findings in class and plan the steps for a facial with electrical modality.
Skin Analysis: Complete a skin analysis by reviewing the client's history form and record card, and select the proper skin care products before performing a facial with an electrical modality.

VIII. **Student Learning Outcomes:**
1. Apply facial device and electrotherapy principles to determine clinical indications, skin effects, safety considerations, and contraindications for facial services.
2. Interpret and compare rotary brush, high-frequency, magnifying lamp, and galvanic current technologies to select equipment and service protocols based on skin type and condition.

3. Apply treatment room organization, sanitation, equipment safety, and maintenance principles to professional facial service preparation and client protection in accordance with State Board regulations.

Substantial Change: COSMETOLOGY 30, Related Science 3

Units:	1.50
Total Instructional Hours (usually 18 per unit):	27.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.00
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable

I. **Catalog Description**

This is the third related science class required for all entering students who wish to be licensed for Barbering, Cosmetology, and/or Esthetics for the state of California. This course provides essential theory carefully formulated to prepare a student to pass the written State Board examination. Students are instructed in basic concepts of electricity (galvanic/sinusoidal), sanitation and disinfectant techniques.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady Standard Cosmetology & Foundations Textbooks, 14, Milady, Cengage © 2023, ISBN: 9780357871492
2. Milady Standard Cosmetology & Foundations Workbooks, 14, Milady, Cengage © 2023, ISBN: 9780357922170
3. Milady Standard Esthetics Fundamentals and Foundations Textbook, 12, Milady, Cengage © 2019, ISBN: 9780357263792
4. Milady Standard Esthetics Fundamentals and Foundations Workbooks, 12, Milady, Cengage © 2019, ISBN: 978-0-357482-84-1
5. Milady Standard Barbering, 7th, Milady, Cengage © 2025, ISBN: 9798214080444
6. Milady Barbering Standard Exam Review, 6th, Milady, Cengage © 2017, ISBN: 9781305100671
7. Milady Standard Barbering Workbook, 7th, Milady, Cengage © 2025, ISBN: 9798214499222

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Explain principles of electricity, electrical current measurements, electromagnetic radiation, and visible and invisible light spectrum physics.
2. Identify equipment modalities, clinical applications, and physiological benefits of electrotherapy currents and light therapy treatments in cosmetology.
3. Define levels of decontamination—sanitation, disinfection, and sterilization—and their specific regulatory applications in salon settings.
4. Describe EPA-registered hospital-grade disinfectant chemistry, contact times, Safety Data Sheet (SDS) guidelines, and decontamination protocols for salon tools, equipment, and surfaces.
5. Explain Universal Precautions, OSHA Bloodborne Pathogens Standard regulations, Exposure Incident protocols, and personal protective equipment (PPE) requirements.
6. Identify practitioner responsibilities regarding State Board safety mandates, ergonomic positioning, chemical hazard communications, and salon environmental safety.

IV. **Methods of Presentation:**

Lecture and Discussion, Distance Education, Discussion, Projects, Other, Online instructor-provided resources, Other Methods: Power Point, Information and procedure sheets, Video/DVD

V. **Course Content**

% of Course	Topic
35.000%	Electricity Principles, Electromagnetic Light Physics, & Electrotherapy Modalities: • Principles of electricity: electric current physics, circuit mechanics, voltage, amperage, wattage, and resistance measurements. • Electromagnetic radiation spectrum: visible light wavelengths, infrared light heat rays, and ultraviolet (UV) radiation characteristics.

	• Electrotherapy current modalities: Galvanic, Sinusoidal, Microcurrent, and High-Frequency current characteristics and safety precautions. • Clinical benefits, skin condition indications, contraindications, and protective eyewear requirements for light therapy treatments.
35.000%	Decontamination Levels, EPA Disinfectant Chemistry, & Tool Sanitation Standards: • Levels of decontamination: defining, differentiating, and applying sanitation, disinfection, and sterilization procedures. • EPA-registered hospital-grade disinfectant chemistry, contact/immersion times, mixing safety, and bactericidal/virucidal efficacy. • State Board sanitation mandates, multi-use tool decontamination workflows, and single-use item disposal rules. • Salon equipment, workstation, and towel/linen sanitation procedures in accordance with state health codes.
30.000%	Universal Precautions, OSHA Bloodborne Standards, & Environmental Safety Compliance: • Universal Precautions, infection control chain of transmission, and body defense mechanism fundamentals. • OSHA Bloodborne Pathogens Standard regulations, Exposure Incident protocols, and practitioner personal protective equipment (PPE). • Safety Data Sheet (SDS) interpretation, chemical hazard communication standards, and chemical storage safety. • Ergonomic positioning, physical injury prevention, and professional practitioner responsibilities for environmental safety compliance.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	Topic
20%	Class Participation: Online Participation: Evaluated through student engagement in weekly structured online discussion forum activities.
20%	Written assignments: Written Assignments: 3-4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Papers: Written Papers: 2–3 short research papers evaluating concepts of electricity (galvanic/sinusoidal), sanitation and disinfectant techniques.
10%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
10%	Final Project: Project: 1 digital case study project analyzing State Board concepts of electricity (galvanic/sinusoidal), sanitation and disinfectant techniques.
100%	Total

VII. **Sample Assignments:**
Written Assignment : Complete the workbook chapter on electricity and be prepared to discuss in class.
Study Material: Create flash cards used to study for tests pertaining to electricity.

VIII. **Student Learning Outcomes:**
1. Explain principles of electricity, electric current, electromagnetic radiation, and the visible light spectrum, and identify the uses and benefits of electrotherapy and light therapy.

2. Define sterilization, disinfection, and sanitation, and describe disinfectant chemistry and decontamination protocols for salon tools, equipment, and surfaces in accordance with State Board standards.
3. Explain Universal Precautions and identify professional responsibilities for maintaining health, safety, and regulatory compliance in the salon environment.

Substantial Change: COSMETOLOGY 31A, Hair Cutting 3

Units:	1.50
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.50
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Advisory(s):	COSM 21A
Prerequisite(s):	COSM 11A

I. **Catalog Description**

This is an advanced course for any student who wishes to be licensed for Barbering, Cosmetology and Hairstylist by the state of California. Students will learn leading edge industry trends as well as advanced techniques for customizing a haircut.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady Standard Cosmetology & Foundations Textbook for Cosmetology, 14, Milady, Cengage Publishing Company © 2023, ISBN: 9780357871492
2. Milady Standard Cosmetology & Foundations Theory Workbook, 14, Milady, Cengage Publishing Company © 2023, ISBN: 9780357922170
3. Milady Standard Barbering and Milady Foundations Textbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214080444
4. Milady Standard Barbering and Milady Foundations Workbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214499222

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Analyze natural growth patterns, hair density, texture variations, and scalp elasticity to determine sectioning configurations and weight distribution for customized haircutting.
2. Compare structural elevation angles, parting lines, and over-direction mechanics to calculate perimeter movement and interior silhouette balance.
3. Formulate technical haircutting diagrams integrating head form reference points, parietal placement, and occipital bone geometry.
4. Construct technical haircutting blueprints for layered, non-layered, A-line, and radius bob variations based on client head shape and hair texture.
5. Differentiate sectioning panel geometry, perimeter cutting lines, and interior weight-removal angles across classic, graduated, and inverted bob variations.
6. Execute precision sectioning and elevation protocols to establish crisp A-line angles and radius perimeter guidelines.
7. Compare tool mechanics, hair shaft impact, and blade angles between razor-cutting, slide-cutting, and texturizing shear applications.
8. Evaluate finishing and blow-drying techniques, tension levels, and styling products to control haircut silhouette, texture movement, and weight distribution.

IV. **Methods of Presentation:**

Lab, Lecture and Discussion, Observation and Demonstration, Discussion, Critique, Projects, Visiting Lecturers, Other, Group Work, Other Methods: Lecture/Discussion, Demonstration, Hands on application, Video/DVD

V. **Course Content**

% of Course	Topic
30.000%	Hair Characteristics, Head Geometry, & Technical Diagramming: • Natural growth pattern analysis, hair density variations, texture, and scalp elasticity mapping. • Head form geometry, parietal crest placement, occipital bone reference points, and spatial

	mapping. • Structural elevation angles (0, 45, 90, 180 degrees), over-direction mechanics, and parting angle calculations. • Formulation of technical haircutting diagrams, blueprints, and interior versus perimeter weight placement.
40.000%	Customized Bob Design Mechanics & Sectioning Geometry: • Structural principles of classic, graduated, layered, non-layered, A-line, and radius bob variations. • Sectioning panel geometry, perimeter line establishment, and interior weight-removal angles. • Precision sectioning protocols, hand positions, elevation control, and perimeter guidelines. • Customized silhouette adjustments based on the client's head form, facial structure, and hair movement.
30.000%	Tool Mechanics, Finishing Dynamics, & Silhouette Evaluation: • Razor-cutting mechanics, stroke tension, blade angle, and hair shaft cuticle impact. • Slide-cutting, slicing, notching, and texturizing shear weight-removal dynamics. • Finishing, blow-drying mechanics, tension control, brush selection, and product application. • Haircut silhouette evaluation, interior movement balance, and structural cross-checking.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	Topic
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Project: Create a book of advanced custom hair styles putting them in categories of short, medium and long lengths.
Written Assignment : Create an instruction manual on how to create and customize a specific haircut for a specific client using advanced current industry trends and tools.

VIII. **Student Learning Outcomes:**
1. Analyze hair characteristics and advanced haircutting principles to formulate customized haircut designs.
2. Design customized bob haircut plans using layered, non-layered, A-line, radius, and texturizing principles.
3. Evaluate slide-cutting, razor-cutting, texturizing, finishing, and styling techniques and their effects on haircut shape, balance, and movement.

Substantial Change: COSMETOLOGY 31C, Hair Coloring 3

Units:	1.50
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.50
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Prerequisite(s):	COSM 11C

I. **Catalog Description**

This is an advanced hair-coloring class for students who wish to be licensed in Barbering or Cosmetology by the State of California. Based on client consultation, the students will learn how to formulate colors to achieve the desired results. Students will learn about bleaching products, color applications, procedures, and advanced hair color and foil techniques.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady's Standard Cosmetology and Foundations Workbook, 14th, Milady, Cengage © 2023, ISBN: 9780357922170
2. Milady's Standard Cosmetology and Foundations textbooks, 14th, Milady, Cengage © 2023, ISBN: 9780357871492
3. Milady Standard Barbering and Milady Foundations Textbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214080444
4. Milady Standard Barbering and Milady Foundations Workbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214499222

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Formulate customized chemical hair color formulas to achieve 100% coverage on resistant gray hair and maintain tonal balance across varied percentages of unpigmented hair.
2. Analyze underlying warm contributing pigments and tonal opposing forces on the color wheel to formulate neutralization strategies for unwanted warm undertones and brassiness.
3. Differentiate fill-color protocols, re-pigmentation steps, and deposit-only dye selections required when restoring depth to over-lightened or compromised hair shafts.
4. Calculate target levels of lift and developer volume strengths (10, 20, 30, 40 volume) based on initial natural level, target level, and underlying pigment contribution.
5. Evaluate hair shaft porosity, elasticity, density, and previous chemical processing history to determine maximum safe lightener strength and processing times.
6. Select appropriate alkalizing agents, oil/powder/cream lightener formulations, and protective bond-building additives to protect hair shaft integrity during high-lift services.
7. Construct customized foil highlighting patterns using slice, fine-weave, and chunky-stitch techniques based on head form geometry and desired visual depth.
8. Apply color melting, balayage, and root-smudge application procedures to create seamless tonal transitions between multi-level color formulations.

IV. **Methods of Presentation:**

Lab, Lecture and Discussion, Observation and Demonstration, Discussion, Projects, Visiting Lecturers, Group Work, Online instructor-provided resources, Other Methods: Power Point, Video/DVD, Guest Artist

V. **Course Content**

% of Course	Topic
30.000%	Advanced Formulations & Corrective Color Solutions: • Resistant gray hair coverage formulations and unpigmented hair percentage ratios. • Color wheel neutralization principles and opposing undertone calculations.

	• Re-pigmentation (fillers), color refreshing, and restoring depth to over-lightened hair. • Corrective color case analysis and multi-step chemical adjustment protocols.
35.000%	Hair Diagnostics, Lift Calculations, & Chemical Lighteners: • Natural level evaluation, target level determination, and developer volume strength selection (10, 20, 30, 40 vol). • Hair porosity, elasticity, density, and prior chemical processing assessment. • Alkalizing agents, oil/powder/cream lighteners, and high-lift formulation mechanics. • Protective bond-building additives and hair shaft integrity preservation.
35.000%	Advanced Dimensional Color Techniques & Sectioning Patterns: • Sectioning geometry, placement, spacing, and stitch patterns (slice, fine-weave, chunky). • Foil highlighting execution, folding mechanics, and visual depth creation. • Color melting, balayage, root smudging, and seamless tonal transition techniques. • Product selection and customized dimensional color design execution.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Written Assignment : Complete questions relating to advanced hair color services in the Hair coloring chapter and be ready to discuss their findings in class along with the importance of client consultation, the integrity of the hair, and color product selection to achieve desired results.
Project: Create a fashion color design utilizing the tools and products used in the class.

VIII. **Student Learning Outcomes:**
1. Formulate and execute solutions for advanced hair color challenges, including gray coverage, color refreshing, unwanted tone neutralization, over-lightened hair, and corrective color.
2. Evaluate hair condition, developer strength, lightener selection, and desired lift to determine appropriate hair color formulations.
3. Apply advanced dimensional color techniques—including color melts, foil highlighting, sectioning placement, spacing, stitch patterns, and product selection—to execute customized color designs.

Substantial Change: COSMETOLOGY 31E, Multi Texture Styling

Units:	1.50
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.50
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Advisory(s):	COSM 21E
Prerequisite(s):	COSM 11B

I. **Catalog Description**

This is an advanced curly hair styling class for all students who wish to be licensed for Barbering, Cosmetology or Hair Styling by the state of California. The student will learn wet and thermal styling, pressing and curling, sewing tracks, closures, crochet weave, and other techniques.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady Standard Barbering and Milady Foundations Workbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214499222
2. Milady Standard Barbering and Milady Foundations Textbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214080444
3. Milady Standard Cosmetology & Foundations Textbook for Cosmetology, 14, Milady, Cengage © 2023, ISBN: 9780357871492
4. Milady Standard Cosmetology & Foundations Theory Workbook, 14, Milady, Cengage © 2023, ISBN: 9780357922170

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Analyze hair density, scalp condition, cranial measurements, and structural hair characteristics to select wigs, hairpieces, and hair addition attachment systems.
2. Evaluate synthetic and human hair fiber chemistry, custom fitting procedures, and extension attachment methods based on client hair integrity and desired style outcomes.
3. Perform advanced hair-extension application procedures, including track sectioning, cornrow base braiding, and tension-controlled weft sewing methods.
4. Execute crochet weaving techniques, bonding applications, and strand-by-strand extension placement for varied hair densities and textures.
5. Assess scalp health, hair porosity, elasticity, and wave pattern to determine thermal press stove temperatures, heat-protectant product selection, and sectioning geometry.
6. Perform soft and hard thermal pressing techniques while maintaining State Board client-protection protocols, iron maintenance, and burn-prevention safety standards.

IV. **Methods of Presentation:**

Observation and Demonstration, Lab, Lecture and Discussion, Visiting Lecturers, Group Work, Projects, Discussion, Critique, Other Methods: Power Point, Guest Artists, Hand outs, Demonstrations.

V. **Course Content**

% of Course	Topic
35.000%	Wigs, Hairpieces, Hair Additions, & Fiber Chemistry Selection: • Cranial topography analysis, scalp elasticity assessment, head measurement procedures, and custom wig base selection. • Synthetic and human hair fiber chemistry: fiber density, heat tolerance, chemical customization, cleaning, and maintenance protocols. • Hair addition and hairpiece attachment systems: toupees, toppers, clip-in additions, and medical hair-loss prosthesis fitting.

	• Client consultation, scalp health screening, growth directional mapping, and customization for varied hair textures.
35.000%	Advanced Hair-Extension Mechanics, Weft Placement, & Weaving Protocols: • Advanced hair-extension application procedures: track sectioning geometry, base cornrow braiding mechanics, and tension control. • Weft sewing techniques: overcast stitch, lock stitch, double-lock stitch, and tension-balanced track placement. • Crochet weaving mechanics, latch-hook techniques, strand-by-strand bonding, fusion, and micro-link extension placement. • Extension maintenance schedules, track re-tightening procedures, damage-prevention protocols, and safe removal techniques.
30.000%	Hair Fiber Physiology, Thermal Pressing Mechanics, & State Board Safety: • Hair fiber elasticity, porosity, texture, and wave pattern assessment for stove thermal temperature calibration. • Thermal pressing procedural mechanics: soft press (single press), hard/double press, sectioning geometry, and heat-protectant application. • Thermal iron maintenance, stove temperature testing, scalp protection barriers, and burn-prevention safety procedures. • State Board sanitation mandates, EPA-registered disinfection for thermal irons and extension implements, and client safety compliance.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Project: Create a wig using a crochet hook technique.
Written Assignment : Describe the process of sewing, cutting, and styling a full head weave using a side part closure.

VIII. **Student Learning Outcomes:**
1. Analyze hair characteristics and structural design considerations to select wigs, hairpieces, hair additions, and extension methods suited to client specifications.
2. Apply advanced hair-extension techniques, including weft placement, braiding and sewing methods, and crochet weaving procedures.
3. Evaluate hair type, texture, and condition to perform thermal pressing procedures using State Board safety and equipment maintenance protocols.

Substantial Change: COSMETOLOGY 36, Nail Care 3

Units:	1.50
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.50
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Advisory(s):	COSM 26
Prerequisite(s):	COSM 16

I. **Catalog Description**

This is the third nail care class required for all entering students who wish to be licensed for Cosmetology and/or Nail Care by the State of California. The student will learn State Board Rules and regulations, safety techniques and sanitation for Nails Care as well as the application of acrylics, and the use of e-files (nail drill).

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady Standard Foundations & Nail Technology Workbook , 8th, ., Cengage © 2021, ISBN: 9780357482865
2. Milady Standard Cosmetology & Foundations Workbooks , 14th, Milady, Cengage © 2023, ISBN: 9781439059227
3. Milady's Standard Cosmetology & Foundations Textbook, 14th , Milady , Cengage © 2023, ISBN: 9780357999721
4. Milady Standard Foundations & Nail Technology Textbook, 8th, Milady , Cengage © 2021, ISBN: 9780357446867

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Apply State Board decontamination protocols, EPA-registered hospital-grade disinfectant chemistry, contact times, and multi-use manicure implement sterilization procedures.
2. Apply electric filing bit sanitation, dust control ventilation mechanics, personal protective equipment selection, and cross-contamination prevention standards.
3. Analyze liquid monomer and polymer powder chemistry, polymerization reaction dynamics, mix-ratio calculations, and apex/C-curve structural architecture.
4. Demonstrate spa manicure protocols and liquid-and-powder enhancement extension, form placement, bead application, and filing mechanics.
5. Select electric file machines, torque parameters, RPM speed settings, and carbide, diamond, and sanding band bit attachments based on nail enhancement service requirements.
6. Demonstrate electric filing angle mechanics, flush cuticle shaping, enhancement surface refining, backfill maintenance, and product removal protocols.

IV. **Methods of Presentation:**

Lab, Lecture and Discussion, Observation and Demonstration, Projects, Visiting Lecturers, Group Work, Discussion, Critique, Other Methods: Demonstrations Lecture/Power Point Guest Artists Hand outs Video/DVD

V. **Course Content**

% of Course	Topic
35.000%	Spa Manicuring Protocols, Liquid-and-Powder Polymerization Chemistry, & Architectural Design: • Spa manicure procedural execution: skin exfoliation mechanics, thermal mask treatments, hand and arm massage techniques, and cuticle maintenance. • Liquid monomer and polymer powder chemistry: ethyl methacrylate (EMA) formulation, catalyst acceleration, cross-linking, and polymerization reaction kinetics. • Extension mechanics and structural design: nail form placement geometry, tip application, mix-

	ratio bead control, apex positioning, and stress-area reinforcement. • C-curve structural architecture, filing and buffing mechanics, enhancement maintenance (fills/rebalances), and product removal protocols.
35.000%	Electric Filing Equipment Physics, Bit Dynamics, & Advanced Filing Mechanics: • Electric filing machine mechanics: micro-motor torque performance, variable RPM speed controls (low, medium, high ranges), and handpiece vibration dampening. • Bit material science and geometry: carbide fluting, diamond grit density, sanding bands, bit shanks, and specific bit function selection. • Electric filing angle mechanics: parallel hold alignment, pressure application dynamics, flush cuticle shaping, and surface refining. • Specialized e-file applications: backfill trench preparation, underside cleaning, enhancement shortening, and natural nail preparation without keratin matrix damage.
30.000%	Nail Decontamination Science, Safety Regulations, & Electric File Sanitation: • State Board sanitation, disinfection, and sterilization mandates for multi-use manicure implements and electric filing equipment. • EPA-registered hospital-grade disinfectant chemical formulations, active ingredients, contact times, immersion procedures, and Safety Data Sheet (SDS) interpretation. • Dust control ventilation physics, particulate exposure mitigation, personal protective equipment (PPE) selection, and client barrier protection standards. • Client consultation intake, hand and nail health screening, contraindication identification, and cross-contamination prevention controls.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	Topic
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Project: Create a set of acrylic nails using color acrylics with a French tip design and either stiletto, almond, or ballerina shape.
Written assignment: Provide a written report explaining the history of manicures and how they have evolved in time. Provide a notebook showing the different nail trends throughout the ages.

VIII. **Student Learning Outcomes:**
1. Apply safety, sanitation, cleaning, and disinfection procedures during manicure, nail enhancement, and electric filing services in accordance with State Board regulations.
2. Demonstrate spa manicure and liquid-and-powder nail enhancement techniques using system-compatible products, specialized implements, and structural nail design principles.

3. Select electric filing equipment and bit attachments based on RPM specifications and demonstrate electric filing techniques following State Board safety protocols.

Substantial Change: COSMETOLOGY 38, Skin Care 3

Units:	1.50
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.50
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Prerequisite(s):	COSM 18

I. **Catalog Description**

This is the third skin care class required for all entering students who wish to be licensed for Cosmetology or Esthetics by the State of California. The students will learn more advanced facial techniques, product ingredients, various types of masks, and specialty facial services.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady's Standard Cosmetology Practical Workbook, 14th, Milady, Cengage © 2023, ISBN: 9780357922170
2. Milady Standard Esthetics Fundamentals & Foundations Workbooks , 12th, Milady, Cengage © 2019, ISBN: 9780357482841
3. Milady Standard Esthetics Fundamentals & Foundations Textbooks , 12th, Milady, Cengage © 2019, ISBN: 9780357263792
4. Milady's Standard Cosmetology & Foundations Textbook, 14th, Milady, Cengage © 2023, ISBN: 9780357871492

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Apply State Board decontamination protocols, EPA-registered hospital-grade disinfectant chemistry, immersion contact times, and multi-use implement sterilization procedures.
2. Apply treatment room ergonomics, personal protective equipment selection, cross-contamination controls, and client barrier protection measures for skin care services.
3. Analyze cosmetic ingredient chemistry, lipid barrier function, pH balance, and trans-epidermal water loss dynamics to select skin care product formulations.
4. Evaluate Fitzpatrick skin types, tissue turgor, vascularity, and physiological contraindications to determine facial exfoliation and treatment modality parameters.
5. Demonstrate clinical facial treatment protocols for acneic, dry, sensitive, and sensitized skin conditions using facial massage mechanics, steam processing, and extraction techniques.
6. Formulate customized post-treatment home-care regimens, active ingredient usage schedules, and sun-protection strategies based on client skin analysis findings.

IV. **Methods of Presentation:**

Lecture and Discussion, Observation and Demonstration, Lab, Visiting Lecturers, Discussion, Group Work, Projects, Critique, Projects, Critique, Projects, Critique, Other Methods: Power Point, Guest artists, Video/DVD

V. **Course Content**

% of Course	Topic
30.000%	Decontamination Science, Treatment Room Ergonomics, & Client Safety Regulations: • EPA-registered hospital-grade disinfectant chemical chemistry, active ingredients, contact/immersion times, and efficacy spectrums. • State Board sanitation, disinfection, and sterilization mandates for multi-use esthetic implements and equipment. • Safety Data Sheet (SDS) interpretation, personal protective equipment (PPE) selection, chemical hazard communication, and ventilation controls.

	• Treatment room setup ergonomics, cross-contamination prevention controls, client barrier protection standards, and emergency incident protocols.
35.000%	Cosmetic Product Chemistry, Barrier Physiology, Skin Typing, & Modality Selection: • Cosmetic ingredient chemistry: emollients, humectants, surfactants, active botanicals, AHA/BHA chemical exfoliants, and pH balance dynamics. • Skin physiology and lipid barrier function: trans-epidermal water loss (TEWL), stratum corneum integrity, and acid mantle preservation. • Advanced skin typing diagnostics: Fitzpatrick scale classification, tissue turgor assessment, vascularity evaluation, and sensitivity versus sensitization differentiation. • Treatment planning and modality selection: matching exfoliation depth, facial electrotherapy, and product formulations to client skin conditions and contraindication screening.
35.000%	Clinical Facial Treatment Protocols, Extraction Mechanics, & Home-Care Regimens: • Clinical facial treatment execution for acneic, dry, sensitive, and sensitized skin: cleansing, steam processing, and facial massage techniques. • Manual extraction mechanics: comedone extractor techniques, tissue tautness control, skin protection, and post-extraction soothing care. • Specialized treatment adaptations: barrier repair protocols, anti-inflammatory soothing treatments, and hyperpigmentation/acne management. • Post-treatment client consultation: formulating home-care active ingredient schedules, sun-protection strategies, and client documentation.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Written Assignment: Complete the Milady workbook chapter questions on facial treatments and be ready to discuss their findings in class and plan the steps for a facial using the appropriate products for the skin type and conditions presented. Explore why a client history form and record card are important to review before the service.
Facial with specific treatment: Complete a facial: Analyze the skin, select appropriate skin care products, and perform a facial with the proper skin care products, electrical modality, or treatments for the skin type and condition presented.

VIII. **Student Learning Outcomes:**
1. Apply sanitation, disinfection, safety, and treatment-room preparation principles to professional skin care services in accordance with State Board regulations.

2. Select skin care products and treatment modalities based on client skin typing, barrier condition analysis, sensitivity factors, and desired clinical outcomes.
3. Demonstrate skin care treatments for acne, dry, sensitive, and sensitized skin conditions, including targeted product selection and home-care regimens.

Substantial Change: COSMETOLOGY 38B, Mechanical Exfoliation

Units:	1.50
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.50
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Prerequisite(s):	COSM 18

I. **Catalog Description**

This is an advanced skin care class for students and licensed estheticians or Cosmetologists. This course provides essential theory carefully formulated to prepare a student to pass the written Cosmetology and/or Esthetics State Board Examinations. The students will learn additional advanced techniques for skin analysis, record-keeping, and advanced anatomy and physiology to determine the protocols for microdermabrasion and physical exfoliation treatments.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Standard Esthetics: Fundamentals Workbook, W/ Foundations Workbook, 12th, Milady, Cengage © 2019, ISBN: 978-0-357482-84-1
2. Standard Foundations W/Esthetics Fundamentals , 12th, Milady, Cengage © 2019, ISBN: 9780357263792
3. Milady Standard Cosmetology & Foundations Workbooks, 14th, Milady, Cengage © 2023, ISBN: 9780357871492
4. Milady's Standard Cosmetology & Foundations Textbook , 14th, Milady, Cengage © 2023, ISBN: 9780357871492

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Analyze client skin analysis findings, tissue turgor, Fitzpatrick typing, and medical history contraindications to formulate mechanical exfoliation service plans.
2. Apply State Board decontamination regulations, client intake documentation standards, informed consent protocols, and post-exfoliation aftercare procedures for mechanical exfoliation services.
3. Evaluate crystal versus crystal-free microdermabrasion mechanics, vacuum pressure settings, grid pass geometry, and nano infusion cartridge configurations for targeted skin conditions.
4. Demonstrate microdermabrasion and nano infusion procedural mechanics, skin tautness techniques, sanitization protocols, and barrier repair serum applications.
5. Analyze light-emitting diode (LED) and infrared wavelength spectrums, cellular ATP stimulation, photothermal dynamics, and ocular safety protocols.
6. Formulate customized LED and infrared phototherapy treatment parameters, exposure durations, and contraindication precautions based on client skin conditions.

IV. **Methods of Presentation:**

Group Work, Lab, Lecture and Discussion, Observation and Demonstration, Critique, Discussion, Projects, Visiting Lecturers

V. **Course Content**

% of Course	Topic
30.000%	Mechanical Exfoliation Diagnostics, Decontamination Science, & Client Documentation: • State Board sanitation and disinfection regulations, EPA-registered hospital-grade disinfectant chemistry, and implement sterilization protocols. • Client consultation diagnostics: Fitzpatrick scale classification, tissue turgor assessment, skin barrier integrity evaluation, and medical contraindication screening. • Client documentation intake protocols, informed consent agreements, photo-documentation guidelines, and service record keeping.

	• Post-exfoliation aftercare instruction, trans-epidermal water loss (TEWL) prevention, sun-protection strategies, and client barrier restoration.
35.000%	Microdermabrasion Procedural Physics, Nano Infusion Mechanics, & Service Protocols: • Crystal (aluminum oxide) versus crystal-free (diamond tip) microdermabrasion mechanics: grit selection, vacuum pressure settings, and grid pass geometry. • Nano infusion technology: silicon and stainless steel cartridge configurations, micro-channel creation physics, and epidermal absorption enhancement. • Procedural execution mechanics: skin tautness techniques, pass velocity control, sanitization protocols, and cross-contamination prevention. • Serum formulation chemistry: hyaluronic acid, growth factor, and peptide infusion selection for specific skin conditions.
35.000%	Phototherapy Physics, LED & Infrared Wavelength Dynamics, & Ocular Safety: • Light-emitting diode (LED) and infrared phototherapy physics: light spectrum nanometer wavelengths (blue 415nm, red 630nm, near-infrared 830nm), and light penetration depth. • Cellular photobiomodulation: mitochondrial ATP stimulation, collagen synthesis acceleration, anti-inflammatory mechanisms, and circulation enhancement. • Ocular safety protocols, protective eyewear standards, photo-sensitizing medication contraindications, and exposure timing parameters. • Treatment integration: combining mechanical exfoliation, nano infusion, and phototherapy into customized multi-modality clinical service protocols.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Written Assignment: Complete the workbook chapter on microdermabrasion and be ready to discuss their findings in class and perform a facial with microdermabrasion. Explore why a client history form, record card, and knowledge of contraindications are essential to review before the service.
Microdermabrasion Facial: Analyze the skin, select the proper mechanical device and perform a facial.

VIII. **Student Learning Outcomes:**
1. Apply client consultation, skin analysis, contraindication, documentation, and aftercare principles to mechanical exfoliation services in accordance with State Board regulations.
2. Demonstrate microdermabrasion and nano infusion procedures using device operating parameters, client skin protocols, and State Board safety practices.
3. Apply infrared and LED light therapy principles using customized treatment protocols, contraindication screening, and client-safety procedures.

Substantial Change: COSMETOLOGY 38C, Chemical Exfoliation

Units:	1.50
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.50
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Prerequisite(s):	COSM 18

I. **Catalog Description**

This is an advanced skin care class for students and licensed estheticians and cosmetologists. This course provides essential theory carefully formulated to prepare a student to pass the written State Board Examinations. The class will focus on the chemistry of chemical exfoliation products, the pH scale, and skin analysis to determine which exfoliant should be used.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Standard Esthetics: Fundamentals Workbook, W/ Foundations Workbook, 12th, Milady, Cengage © 2019, ISBN: 978-0-357482-84-1
2. Standard Foundations W/Esthetics Fundamentals , 12th, Milady, Cengage © 2019, ISBN: 9780357263792
3. Milady Standard Cosmetology & Foundations Workbooks, 14th, Milady, Cengage © 2023, ISBN: 9780357871492
4. Milady's Standard Cosmetology & Foundations Textbook , 14th, Milady, Cengage © 2023, ISBN: 9780357871492

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Analyze cosmetic acid chemistry, free acid percentage, pH scale dynamics, and skin barrier function to select chemical exfoliation product formulations.
2. Apply Fitzpatrick skin typing, tissue turgor assessment, topical medication history, and physiological contraindications to determine client eligibility for chemical exfoliation services.
3. Demonstrate superficial chemical exfoliation application techniques using enzyme, alpha hydroxy acid (AHA), and beta hydroxy acid (BHA) formulations, neutralizer protocols, and client-protection standards.
4. Apply State Board decontamination protocols, patch-testing procedures, manufacturer timing parameters, and post-peel skin soothing treatments during chemical exfoliation services.
5. Evaluate cellular desquamation mechanisms, epidermal versus dermal penetration depths, and tissue regeneration dynamics of superficial and medium-depth chemical peels.
6. Formulate post-peel recovery protocols, sun-protection strategies, active ingredient home-care usage schedules, and adverse reaction management procedures.

IV. **Methods of Presentation:**

Critique, Group Work, Lab, Lecture and Discussion, Observation and Demonstration, Visiting Lecturers, Projects, Discussion

V. **Course Content**

% of Course	Topic
35.000%	Cosmetic Acid Chemistry, Skin Diagnostics, & Client Eligibility Assessment: • Acid chemistry physics: free acid percentage, pH scale logarithmic dynamics, pKa values, and pKa versus pH dissociation equilibrium. • Epidermal anatomy and skin barrier dynamics: lipid matrix integrity, acid mantle preservation, and trans-epidermal water loss (TEWL). • Client consultation diagnostics: Fitzpatrick scale typing, tissue turgor, skin sensitivity screening, and topical medication contraindications. • Product formulation selection: matching enzyme, glycolic acid, lactic acid, and salicylic acid parameters to client skin conditions and desired outcomes.

35.000%	Chemical Exfoliation Procedural Mechanics, Decontamination, & Client Protection: • Superficial chemical exfoliation application mechanics: enzyme activation, AHA/BHA layer layering, timing protocols, and frost/erythema monitoring. • Neutralization science and termination protocols: alkaline neutralizing chemistry, water rinsing dynamics, and tissue cooling procedures. • State Board decontamination regulations, EPA-registered hospital-grade disinfectant chemistry, implement sanitation, and single-use item protocols. • Patch-testing protocols, pre-treatment skin priming regimens, barrier protection measures, and client protection standards during exfoliation services.
30.000%	Peel Depth Dynamics, Tissue Regeneration, & Adverse Event Management: • Cellular desquamation mechanics: desmosome dissolution physics, epidermal versus dermal penetration depths, and tissue regeneration dynamics. • Superficial versus medium-depth chemical peel characteristics: Jessner's solution, TCA (trichloroacetic acid), salicylic acid, and phenol application boundaries. • Post-peel recovery protocols: epidermal barrier repair, anti-inflammatory soothing agents, sun-protection strategies, and active ingredient home-care scheduling. • Complication and adverse event management: hyperpigmentation prevention, chemical burn protocols, allergic reaction management, and client record documentation.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	Topic
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Written Assignment: Complete the workbook chapter on chemical peels and be ready to discuss their findings in class and perform a facial with a chemical peel. Explore why a client history form, record card, and knowledge of contraindications are essential to review before the service.
Chemical Peel: Conduct a client consultation. Analyze the skin, select the appropriate chemical peel, and perform a facial.

VIII. **Student Learning Outcomes:**
1. Apply client consultation, skin analysis, pH dynamics, and contraindication principles to select chemical exfoliation services and product formulations.
2. Demonstrate superficial chemical exfoliation procedures using enzyme, AHA, and BHA products, patch-testing protocols, manufacturer instructions, and client-protection standards.
3. Evaluate the physiological effects, tissue depth characteristics, contraindications, and safety protocols of superficial and medium-depth chemical peels.

Substantial Change: COSMETOLOGY 42, Short Hair Cutting

Units:	1.50
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.50
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Prerequisite(s):	COSM 11A

I. **Catalog Description**

This class is required for all students who wish to be licensed for Barbering, Cosmetology or Hair Styling by the State of California. This class is designed to teach how to effectively and properly describe and demonstrate the many techniques of designing short hair, which will include wet and dry hair cuts, finger cutting techniques, scissors over comb hair cutting, clipper over comb hair cutting, beard trims, mustache and eyebrow shaping, blow drying and how to properly setup and maintain a Sanitary Maintenance Area necessary for all tools used.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady Standard Cosmetology & Foundations Textbook for Cosmetology, 14, Milady, Cengage Publishing Company © 2023, ISBN: 9780357871492
2. Milady Standard Cosmetology & Foundations Practical Workbook, 14, Milady, Cengage Publishing Company © 2023, ISBN: 9780357922170
3. Milady Standard Barbering and Milady Foundations Textbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214080444
4. Milady Standard Barbering and Milady Foundations Workbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214499222

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Analyze EPA-registered disinfectant chemical formulations, contact times, and bactericidal, virucidal, and fungicidal efficacy to establish tool decontamination protocols.
2. Evaluate State Board regulatory standards, cross-contamination risks, and Safety Data Sheet (SDS) compliance to establish sanitary haircutting workstation maintenance standards.
3. Evaluate head form reference points, parting geometry, elevation angles, and tension dynamics to select intermediate wet-cutting and slide-cutting procedures.
4. Assess hair density, elasticity, and growth directives to select optimal clipper fading, blending, line-up, and scissors-over-comb weight-reduction techniques.
5. Evaluate facial topography, bone structure, skin sensitivity, and grain patterns to design customized beard, mustache, and eyebrow grooming service plans.
6. Formulate client-protection protocols, hot towel application sequences, and skin barrier conditioning strategies for facial hair and eyebrow grooming services in accordance with State Board regulations.

IV. **Methods of Presentation:**

Lab, Lecture and Discussion, Observation and Demonstration, Discussion, Field Trips, Visiting Lecturers, Critique, Group Work, Other Methods: Power Point, Video/DVD, Guest Artist

V. **Course Content**

% of Course	Topic
35.000%	Decontamination Chemistry, EPA Efficacy Standards, & Workstation Sanitation Protocols: • EPA-registered hospital-grade disinfectant chemical formulations, active ingredients, contact/immersion times, and efficacy spectrums (bactericidal, virucidal, fungicidal, tuberculocidal). • State Board sanitation and disinfection regulations, multi-use implement decontamination procedures, and single-use item disposal mandates. • Safety Data Sheet (SDS) interpretation, chemical hazard communication compliance,

	ventilation standards, and cross-contamination prevention controls. • Workstation sanitation mechanics, tool tray layout, barrier controls, and environmental health standards for intermediate haircutting services.
35.000%	Intermediate Haircutting Mechanics, Head Form Geometry, & Texture Analysis: • Head form reference points, parting geometry, projection angles, and elevation dynamics for intermediate wet-cutting and slide-cutting. • Clipper cutting mechanics, lever adjustments, blade geometry, and contrast blending for fading, tapering, and precision line-ups. • Scissors-over-comb, clipper-over-comb, and freehand cutting physics for weight distribution, bulk reduction, and seamless transition blending. • Hair characteristics evaluation: analyzing hair density, elasticity, porosity, growth directives, and whorl/cowlick pattern compensations.
30.000%	Facial Topography Analysis, Facial Hair Sculpting, & Eyebrow Grooming Service Design: • Facial bone structure mapping, muscle contour analysis, skin sensitivity evaluation, and hair-growth grain directional mapping. • Beard, mustache, and facial hair sculpting geometry: proportion balancing, perimeter outlining, and cheek/neckline framing design. • Eyebrow grooming design principles: facial symmetry analysis, arch location, trimming mechanics, and hair-density balancing. • Client-protection protocols, hot towel thermal preparation, skin barrier conditioning chemistry, and State Board safety compliance in facial grooming.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Project: Create a picture book for short hairstyles.
Written Assignment: Write a paper identifying the reference points on the head form and explaining their importance in haircutting.

VIII. **Student Learning Outcomes:**
1. Analyze decontamination chemistry, EPA-registered disinfectant efficacy, and State Board regulations to establish sanitary workstation and tool maintenance protocols.
2. Evaluate hair characteristics, sectioning geometry, and head form reference points to select intermediate clipper-cutting, wet-cutting, and texturizing techniques.
3. Design customized facial hair and eyebrow grooming service plans based on client facial topography, hair-growth directives, and State Board safety regulations.

Substantial Change: COSMETOLOGY 46, Nail Care 4

Units:	1.50
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.50
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Advisory(s):	COSM 36
Prerequisite(s):	COSM 16

I. **Catalog Description**

This is an advanced nail care class required for all students who wish to be licensed for Nail Care by the State of California and optional for Cosmetology students. The student will learn State Board Rules and regulations, safety techniques and sanitation for Nail Care as well as the application of gel nails, spa manicures/pedicures and 3-D nail art.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady Standard Cosmetology & Foundations Textbook, 14th , Milady , Cengage © 2023, ISBN: 9780357999721
2. Milady Standard Nail Technology , 8th, Milady , Cengage © 2021, ISBN: 9780357446867
3. Milady Cosmetology Standard & Foundations Workbook, 14th, Milady, Cengage © 2023, ISBN: 9780357922170
4. Milady Standard Foundations & Nail Technology Workbooks , 8th, Milady, Cengage © 2021, ISBN: 9780357482865

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Compare oligomer formulation chemistry, photoinitiator activation wavelengths, and gel viscosity levels to select light-cured gel systems for client nail enhancements.
2. Analyze natural nail plate integrity, keratin bonding mechanics, and enhancement product chemistry to determine gel application methods for specific client nail conditions.
3. Demonstrate spa manicure and pedicure procedures, including paraffin treatments, exfoliation scrubs, thermal wraps, and advanced massage techniques.
4. Apply State Board decontamination protocols, EPA-registered hospital-grade disinfection, contraindication screening, and client-protection measures during spa nail services.
5. Apply light-cured gel enhancements using sculptured form placement, tip overlay fitting, stress-area apex construction, and LED/UV cure timing.
6. Employ electric filing mechanics, gel rebalancing techniques, maintenance fills, and damage-free removal protocols in accordance with State Board safety standards.

IV. **Methods of Presentation:**

Lab, Lecture and Discussion, Observation and Demonstration, Visiting Lecturers, Projects, Group Work, Discussion, Critique, Other Methods: Demonstrations Lecture/Power Point Guest Artists Hand outs Video/DVD

V. **Course Content**

% of Course	Topic
35.000%	Oligomer Chemistry, Light-Cured Gel Systems, & Enhancement Selection Principles: • Oligomer formulation chemistry, photoinitiator activation wavelengths (LED/UV), and gel polymerization dynamics. • Light-cured gel classifications: hard building gels, soft/soak-off gels, brush-on gels, and gel polish formulations. • Natural nail plate integrity evaluation, keratin bonding mechanics, dehydrators, primers, and adhesion science.

	• Product selection for specific client nail conditions, enhancement service planning, and contraindication screening.
35.000%	Spa Manicure & Pedicure Services, Advanced Enhancements, & Decontamination Protocols: • Advanced spa manicuring and pedicuring procedures: paraffin wax treatments, exfoliation scrubs, thermal wraps, and advanced massage protocols. • Client health consultations, skin and nail contraindication screening, foot care precautions, and medical referral guidelines. • State Board decontamination standards, EPA-registered hospital-grade disinfectant chemistry, immersion contact times, and foot basin sanitation mandates. • Product chemistry, skin conditioning formulations, Safety Data Sheet (SDS) compliance, and client-protection protocols.
30.000%	Light-Cured Gel Application Mechanics, Electric Filing, Maintenance, & Safe Removal: • Sculptured form placement, tip selection and fitting, stress-area apex construction, and C-curve structural architecture. • Curing mechanics, LED/UV lamp wattage parameters, heat spike prevention, layer thickness control, and inhibition layer removal. • Electric filing mechanics: bit selection, speed control (RPM), angle alignment, gel rebalancing, and maintenance fill procedures. • Damage-free gel removal protocols, natural nail plate restoration, post-removal conditioning, and State Board safety compliance.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Workbook: Complete questions from the Gel Nail Enhancements workbook Chapter.
Project: Design a nail theme in manicure, creating 3D nail art.

VIII. **Student Learning Outcomes:**
1. Compare light-cured gel systems, oligomer chemistry, and product characteristics to determine nail enhancement applications based on client nail integrity and service specifications.
2. Demonstrate spa manicure and pedicure services incorporating State Board safety regulations, sanitation protocols, contraindication screening, product selection, and service enhancements.
3. Apply light-cured gel enhancement techniques, including form placement, apex construction, LED/UV cure times, maintenance fills, and safe removal procedures.

Substantial Change: COSMETOLOGY 48, Skin Care 4

Units:	1.50
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.50
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Prerequisite(s):	COSM 18

I. **Catalog Description**

This is the fourth skin care class required for all continuing students who wish to be licensed for Esthetics by the state of California and an elective for Cosmetologists. This course will combine theoretical applications and current trends and practices in esthetics.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady Standard Cosmetology & Foundations Workbooks, 14th, Malady, Cengage © 2023, ISBN: 9780357922170
2. Milady's Standard Cosmetology & Foundations Textbook , 14th, Milady, Cengage © 2023, ISBN: 9780357871492
3. Standard Esthetics: Fundamentals Workbook, W/ Foundations Workbook, 12th, Milady, Cengage © 2019, ISBN: 9780357482841
4. Standard Foundations W/Esthetics Fundamentals Textbooks, 12th, Milady, Cengage © 2019, ISBN: 9780357263792

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Apply State Board decontamination protocols, EPA-registered hospital-grade disinfectant chemistry, immersion contact times, and blood-exposure emergency procedures during esthetic services.
2. Demonstrate personal protective equipment selection, cross-contamination prevention controls, and client barrier protection measures in accordance with infection-control regulations.
3. Evaluate Fitzpatrick skin types, tissue integrity, and contraindications to determine microdermabrasion, chemical exfoliation, and facial electrical modality protocols.
4. Formulate customized facial treatment plans, post-exfoliation home-care regimens, and sun-protection strategies based on client skin analysis findings.
5. Analyze ocular anatomy, client patch-testing responses, adhesive chemistry, and eye-shape geometry to select lash extension and lash lift application techniques.
6. Demonstrate lash extension isolation mechanics, lift rod placement, chemical processing times, and damage-free removal protocols using State Board ocular protection regulations.

IV. **Methods of Presentation:**

Lab, Lecture and Discussion, Observation and Demonstration, Discussion, Visiting Lecturers, Critique, Projects, Group Work, Other Methods: Power Point, Hands on applications, Information and procedure sheets, Video/DVD

V. **Course Content**

% of Course	Topic
25.000%	Decontamination Chemistry, Blood-Exposure Protocols, & Client Safety Regulations: • EPA-registered hospital-grade disinfectant chemical chemistry, active ingredients, immersion contact times, and efficacy spectrums. • State Board sanitation and disinfection regulations, multi-use implement decontamination procedures, and single-use item disposal mandates. • Safety Data Sheet (SDS) interpretation, personal protective equipment (PPE) selection, chemical hazard communication, and ventilation controls.

	• Blood-exposure emergency incident protocols, cross-contamination prevention controls, and client barrier protection standards in esthetic services.
25.000%	Advanced Exfoliation Physics, Facial Electrical Modalities, & Post-Treatment Protocols: • Advanced skin analysis mechanics: Fitzpatrick skin typing, tissue turgor/elasticity evaluation, and skin barrier function assessment. • Chemical exfoliation chemistry (AHAs, BHAs, enzyme peels) and microdermabrasion mechanics: depth control, grid pass geometry, and tissue response monitoring. • Facial electrical modalities physics and application: galvanic current (iontophoresis/desincrustation), high-frequency, microcurrent, and LED light therapy. • Physiological contraindication screening, treatment plan customization, post-exfoliation home-care regimens, and sun-protection strategies.
25.000%	Ocular Safety, Lash Extension Mechanics, Lash Lifting Physics, & Adhesive Chemistry: • Ocular anatomy, patch-testing protocols, cyanoacrylate adhesive chemistry, polymerization dynamics, and isolation/ventilation safety. • Lash extension application geometry: lash mapping techniques, natural lash isolation mechanics, extension weight/length calculations, and bond placement. • Lash lifting and tinting mechanics: processing chemical physics, lift rod size selection, processing times, and keratin conditioning treatments. • Damage-free extension removal techniques, lash maintenance schedules, eye-shape customization, and State Board ocular protection compliance.
25.000%	Epilation Physics, Dermaplaning Mechanics, & Client Documentation: • Hair-growth cycle physiology, grain directional mapping, topical medication contraindications (retinoids, AHA/BHAs, Accutane), and skin elasticity checks. • Hard wax and soft wax application/removal mechanics, temperature testing, strip placement tension, and post-epilation soothing formulations. • Dermaplaning procedural mechanics: surgical scalpel blade angle alignment (45-degree rule), skin tautness control, feathering strokes, and tissue disposal. • Client consultation intake documentation, informed consent protocols, post-treatment care plans, and skin barrier restoration care.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	Topic
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**

Written Assignment: Complete the workbook questions on eyelash lifts. Students will be ready to discuss their findings in class and plan the steps for an eyelash lift service. Students will explore why a client history form and record card are important to review before the service.
Project: Analyze the eyelashes and select products to perform a lash lift service.

VIII. **Student Learning Outcomes:**

1. Apply sanitation, disinfection, infection-control, blood-exposure, and client-safety principles to esthetic services in accordance with State Board regulations.
2. Evaluate client consultation and skin analysis data to select exfoliation protocols, facial electrical modalities, contraindications, and post-treatment care plans.
3. Analyze client health history, patch-testing results, and ocular safety protocols to select lash extension and lash lift service procedures.
4. Evaluate client's skin conditions, hair-growth patterns, and physiological contraindications to determine customized waxing, hair-removal, and dermaplaning approaches.

Substantial Change: COSMETOLOGY 48B, Make-Up

Units:	1.50
Total Instructional Hours (usually 18 per unit):	36.00
Hours per week (full semester equivalent) in Lecture:	1.50
In-Class Lab:	0.50
Arranged:	0.00
Outside-of-Class Hours:	54.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Prerequisite(s):	COSM 18

I. **Catalog Description**

This class is required for all students who wish to be licensed for Cosmetology or Esthetics by the state of California. This is an intense class in make-up application. This course will include color theory, blending make-up, the use of concealers, highlighters and contours. The application of blush, powders, lip liners, and lipstick, eye make-up techniques, and the application of new trends will also be covered. Students will learn how to determine face shapes. Students will learn about evening glamour, high fashion make-up, and special bridal looks.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. The Art and Science of Professional Make-up, Place, S. C., Milady © 1990, ISBN: 978-0873503617
2. Milady's Standard Cosmetology & Foundations Textbook, 14th , Milady , Cengage © 2023, ISBN: 9780357871492
3. Milady's Standard Esthetics: Fundamentals Textbook, 12th , Milady , Cengage © 2023, ISBN: 9780357263792
4. Milady Standard Cosmetology & Foundations Workbooks, 14th, Milady, Cengage © 2023, ISBN: 9780357922170
5. Milady Standard Esthetics Fundamentals & Foundations Workbook, Milady, Cengage © 2023, ISBN: 9780357482841

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Analyze skin undertones, eye and hair color characteristics, and facial bone structures to select color palettes and corrective makeup strategies.
2. Formulate advanced color correction protocols using primary, secondary, and complementary color theory to neutralize facial discoloration and skin imperfections.
3. Analyze client skin health, sensitivity factors, cosmetic product ingredients, and finish characteristics to formulate individualized makeup application plans.
4. Evaluate client consultation data, event criteria, and lighting conditions to select long-wear foundation, primer, and setting product formulations.
5. Design highlight, contour, and facial sculpting strategies based on facial shape geometry, feature proportions, and light direction dynamics.
6. Apply corrective makeup techniques for eye shapes, brow structures, lip contours, and nose symmetry to enhance facial balance.

IV. **Methods of Presentation:**

Lab, Lecture and Discussion, Observation and Demonstration, Other (Specify), Visiting Lecturers, Discussion, Critique, Projects, Group Work, Individualized Instruction
Other Methods: Power Point, Guest Artists, Video/DVD, Hand outs

V. **Course Content**

% of Course	Topic
25.000%	Advanced Color Theory, Facial Bone Analysis, & Color Correction Protocols: • Primary, secondary, and tertiary color chemistry, undertone mapping (cool, warm, neutral), and skin tone classification. • Color correction science: complementary color neutralization for hyperpigmentation, rosacea,

	dark circles, and scar tissue. • Facial anatomy and bone structure analysis: cranial topography, facial proportions, symmetry evaluation, and feature identification. • Palette selection principles: harmonizing eye, hair, and skin characteristics for customized corrective makeup strategies.
25.000%	Client Consultation Diagnostics, Cosmetic Product Chemistry, & Service Customization: • Comprehensive client health history intake, skin type and condition assessment, sensitivity screening, and contraindication analysis. • Cosmetic product chemistry and ingredient evaluation: primer, foundation, concealer, powder, and setting spray formulations. • Finish characteristics and opacity control: sheer, medium, full coverage, matte, satin, dewy, and luminous textures. • Individualized service plan formulation based on client goals, environmental factors, wear-time requirements, and skin integrity.
25.000%	Advanced Highlighting, Contouring, & Feature Restructuring Geometry: • Light and shadow physics in makeup design: optical illusions of recession and projection, light direction dynamics, and focal point creation. • Facial shape sculpting geometry: oval, round, square, heart, diamond, and oblong contouring and highlighting patterns. • Corrective feature alignment: eye shape enhancement, brow restructuring, nose reshaping, and lip symmetry balancing. • Blending mechanics, tool selection (sponges, natural and synthetic brushes, airbrush), and seamless transition protocols.
25.000%	Specialized Media Applications, Airbrush Mechanics, & State Board Decontamination: • Media makeup physics: High-Definition (HD) digital camera sensitivity, studio and video lighting temperature, and reflectivity management. • Airbrush technology and application mechanics: compressor PSI settings, gun handling, distance control, formula viscosity, and uniform layer building. • Special-event and bridal service design: long-wear stabilization, tear-proof formulations, touch-up kit preparation, and timeline management. • State Board decontamination protocols: EPA-registered hospital-grade disinfectant chemistry, single-use implement safety, palette hygiene, brush sanitation, and client safety compliance.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Written Assignment: Students will complete questions from the Makeup Chapter in the workbooks.
Practical Assignment: Students will research optical illusion makeup, recreate or use as reference and inspiration for final makeup look. Makeup needs to include full face makeup and application of eyelashes. List makeup used to create look. Practice safety control procedures according to state board guidelines.

VIII. **Student Learning Outcomes:**

1. Evaluate skin, eye, and hair color and facial characteristics to formulate advanced makeup color and corrective design strategies.
2. Analyze client consultation information and cosmetic product characteristics to select products and formulate individualized makeup service plans based on client skin conditions and service objectives.
3. Design advanced highlighting, contouring, and corrective makeup strategies to enhance facial balance, proportion, and individual features.
4. Evaluate professional makeup requirements for photography, video, bridal, airbrush, and special-event applications, including product selection, service preparation, sanitation, and design considerations.

Substantial Change: COSMETOLOGY 77, Barbering

Units:	3.00
Total Instructional Hours (usually 18 per unit):	72.00
Hours per week (full semester equivalent) in Lecture:	3.00
In-Class Lab:	1.00
Arranged:	0.00
Outside-of-Class Hours:	108.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Prerequisite(s):	COSM 11A

I. **Catalog Description**
This course provides the training required for the barbering license by the state of California. This course includes facial hair design, shaving, health and safety procedures associated with salons and barbershops.

II. **Examples of Appropriate Text or Other Required Reading:**
(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)
1. Milady Standard Barbering and Milady Foundations Workbooks, 7th, Milady, Milady © 2025, ISBN: 9798214499222
2. Milady Standard Barbering and Milady Foundations Textbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214080444

III. **Course Objectives**
Upon completion of this course, the student will be able to:
1. Apply State Board decontamination protocols, EPA-registered hospital-grade disinfectant chemistry, immersion contact times, and sharp implement disposal mandates during professional shaving services.
2. Identify client skin contraindications, blood-exposure emergency protocols, hot towel thermal safety precautions, and barrier protection measures in accordance with State Board regulations.
3. Analyze hair density, texture, growth directional grain, and whorl patterns to select beard and mustache design approaches.
4. Interpret client facial bone structure, skin elasticity, and facial topography to determine customized facial hair outline design strategies.
5. Apply 14 standard shaving positions, razor blade angles, skin stretching tension techniques, and stroke direction mechanics for professional facial shaving services.
6. Analyze skin preparation procedures, lathering protocols, steam towel application sequences, and post-shave conditioning steps.

IV. **Methods of Presentation:**
Lecture and Discussion, Observation and Demonstration, Projects, Visiting Lecturers, Critique, Field Trips, Discussion, Group Work, Online instructor-provided resources, Other Methods: Lecture/Discussion, Video/DVD

V. **Course Content**

% of Course	Topic
35.000%	Shaving Safety, Decontamination Science, & Infection-Control Regulations: • EPA-registered hospital-grade disinfectant chemical formulations, active ingredients, contact/immersion times, and efficacy spectrums. • State Board sanitation, disinfection, and sterilization mandates for barbering implements and straight razors. • Single-use blade disposal procedures, biohazard handling, and sharp implement container safety protocols. • Blood-exposure emergency incident protocols, cross-contamination controls, hot towel thermal safety, and client barrier protection.
30.000%	Facial Topography Analysis, Hair Growth Dynamics, & Facial Hair Design Mechanics: • Facial bone structure analysis, muscle contour evaluation, and skin sensitivity mapping for facial grooming.

	• Hair growth directional grain analysis, whorl/cowlick pattern compensations, and density variations across facial zones. • Beard and mustache design principles: proportion balancing, perimeter outlining, and cheek/neckline framing geometry. • Client consultation intake, skin condition screening, contraindications (acne, lesions, warts, ingrown hairs), and service customization.
35.000%	Professional Shaving Mechanics, Razor Positions, & Service Sequence Protocols: • Straight razor mechanics: blade assembly, tension adjustment, stropping techniques, and razor angle mechanics (30-degree rule). • The 14 standard shaving positions and strokes: freehand, backhand, reverse freehand, and reverse backhand execution theory. • Pre-shave preparation procedures: skin lubrication, facial massage theory, steam towel processing, and lathering techniques. • Service execution sequence: first-time over shave, second-time over shave (close shave), neck shaving, post-shave astringents, and barrier restoration.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**
Workbook: Complete the Shaving and Facial Hair Design chapter in the workbook.
Project: During a practical assignment, explain the guidelines of designing a man's beard and mustache to complement the shape of his face. Present your work via pictures or video, step by step, and explain in writing your achievement.

VIII. **Student Learning Outcomes:**
1. Apply shaving safety, sanitation, disinfection, infection-control, and client-protection principles to professional shaving services in accordance with State Board regulations.
2. Interpret hair type, density, and growth patterns to select beard, mustache, and facial hair design approaches aligned with client's facial topography.
3. Apply professional shaving concepts to determine razor positions, shaving stroke angles, client skin preparation, service sequences, and finishing procedures.

Substantial Change: COSMETOLOGY 78, Barbering 2

Units:	3.00
Total Instructional Hours (usually 18 per unit):	72.00
Hours per week (full semester equivalent) in Lecture:	3.00
In-Class Lab:	1.00
Arranged:	0.00
Outside-of-Class Hours:	108.00
Transferability:	None
Degree Applicability:	Credit - Degree Applicable
Prerequisite(s):	COSM 11A
Proposed Start:	Fall 2025

I. **Catalog Description**

This course is required for the barbering license of the state of California. This course will prepare students for licensure with an emphasis on advanced shaving techniques, health and safety and disinfection.

II. **Examples of Appropriate Text or Other Required Reading:**

(include all publication dates; for transferable courses at least one text should have been published within the last 7 years)

1. Milady Standard Barbering and Milady Foundations Workbooks, 7th, Milady, Cengage © 2025, ISBN: 9798214499222
2. Milady Standard Barbering and Milady Foundations Textbooks, 7th, Milady, Milady, Cengage © 2025, ISBN: 9798214080444

III. **Course Objectives**

Upon completion of this course, the student will be able to:

1. Analyze cranial topography, hair growth directives, skin sensitivity, and client preference to determine appropriate head-shaving, outlining, and detailing strategies.
2. Compare finishing tool mechanics, blade attachment elevations, and post-service skin conditioning formulations to establish customized grooming and finishing protocols.
3. Evaluate physical hair characteristics, density, elasticity, and growth patterns to select advanced clipper fading, tapering, and arch-detailing techniques.
4. Assess shear and straight-razor weight-reduction mechanics, elevation angles, and texturizing geometric principles for structural haircut design.
5. Evaluate facial bone structure, grain directions, skin conditions, and anatomical reference points to design customized straight-razor facial shaving services.
6. Formulate comprehensive facial hair design, mustache and beard sculpting, and skin barrier preparation protocols based on client facial topography and safety guidelines.

IV. **Methods of Presentation:**

Lecture and Discussion, Observation and Demonstration, Projects, Visiting Lecturers, Critique, Field Trips, Discussion, Group Work, Online instructor-provided resources, Other Methods: Lecture/Discussion, Video/DVD

V. **Course Content**

% of Course	Topic
35.000%	Cranial Analysis, Head-Shaving Mechanics, Outlining, & Finishing Protocols: • Cranial topography analysis, scalp elasticity/sensitivity assessment, and growth directional mapping for precision head-shaving. • Outlining and detailing mechanics: trimmer blade alignment, arch creation, hairline reconstruction, and perimeter definition. • Finishing tool mechanics, foil shaver attachment elevations, hot/cold towel thermal physics, and post-shave skin conditioning. • Client consultation protocols, skin barrier restoration chemistry, and infection control compliance in advanced finishing services.
35.000%	Advanced Clipper-Cutting Physics, Straight-Razor Mechanics, & Texturizing Design: • Advanced clipper fading and tapering physics: lever position mechanics, guard transition

	geometry, and skin-tone contrast blending. • Straight-razor and shear weight-reduction mechanics: stroke angle calculations, blade pressure control, and tension dynamics. • Structural texturizing principles: point cutting, slithering, notch cutting, and channel texturizing for varied hair densities. • Hair characteristics evaluation: porosity, elasticity, density distribution, and whorl/cowlick growth pattern compensations.
30.000%	Facial Topography Mapping, Straight-Razor Shaving, & Beard/Mustache Sculpting: • Facial bone structure mapping, muscle contour analysis, skin fold identification, and grain pattern evaluation for customized shaving. • Straight-razor facial shaving design: 14 shaving area stroke sequences, blade angle maintenance, and lather preparation chemistry. • Facial hair sculpting geometry: mustache and beard design proportions, cheek line framing, and neckline contouring. • Client safety, razor hygiene, blood exposure incident protocols, and skin barrier protection in advanced facial grooming.
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
20%	Class Participation: In-Class Participation: Evaluated through student engagement in structured small group activities, case study discussions and analytical problem-solving exercises.
20%	Class Work: Laboratory Practicals & Skills Evaluations: 3-4 laboratory hands-on procedure checks evaluated in small group activities and technical execution and safety protocols.
20%	Homework: Written Assignments: 3–4 written homework worksheets evaluating reading comprehension and 3-4 online group discussion forum threads analyzing core topic prompts and peer responses.
20%	Exams/Tests: Midterm Examination assessing midterm course objectives, core terminology, and theoretical principles.
20%	Final exam: Final Examination: Cumulative final written examination measuring student mastery of all stated course objectives.
100%	Total

VII. **Sample Assignments:**

Project: Present your completed haircut to the class using photographs or a video that demonstrates each step of the haircutting process. Provide a written explanation of the techniques used, the results achieved, and an evaluation of your overall performance.

Written Assignment : Write a paper describing the various haircutting techniques, hairstyles, and shaving methods covered in class.

VIII. **Student Learning Outcomes:**

1. Analyze haircutting, shaving, and grooming considerations to determine appropriate outlining, detailing, head-shaving, and finishing approaches.
2. Evaluate hair characteristics and haircut design to select appropriate advanced clipper-cutting, razor-cutting, and texturizing techniques.
3. Design advanced shaving and grooming approaches based on facial characteristics, hair-growth patterns, safety considerations, and desired outcomes.

Santa Monica College
Program of Study
Biology 2.0 AS-T

The Associate Degree for Transfer (AD-T) in Biology provides students with the fundamentals of Biology, in both theory and practice. The program prepares individuals to integrate and apply the principles of the scientific process, cell and molecular biology, genetics, evolution, and ecology. Students will develop skills to design and implement scientific research, from developing a falsifiable hypothesis, designing and conducting experiments, to analyzing, interpreting and communicating the resulting quantitative data. Students will be prepared for further studies in field and laboratory Biology, as well as myriad entry level research technician positions in both academics and industry (environmental monitoring, naturalist, biotech, etc.). Careers include Microbiologist, Marine Biologist, Wildlife Biologist, Forensic Scientist, Restoration and Conservation Biologist, as well as careers along the healthcare pathway, such as Physician, Nurse, Phlebotomist, Geneticist, Physician's Assistant and many others.
The associate's degree track may be completed in two years and consists of a core of Biology Major, liberal arts, and additional math and science courses. The support courses in the curriculum pattern allow the student to explore special interests that are related to their personal/professional goals/interests.

Associate Degree for Transfer Requirements:

- Completion of 60 semester units or 90 quarter units of CSU transferable courses,
- Minimum overall grade point average of 2.0,
- Minimum grade of "C" (or "P") for each course in the major, and
- Completion of Cal-GETC

Program Learning Outcomes:
Demonstrate a comprehensive knowledge of core biological principles, including cellular structure, molecular biology, introductory genetics, evolution and ecology.

- BIOL 21: Apply the scientific method to investigate a question by formulating a hypothesis; researching the topic; performing tests; generating, analyzing, and presenting data; modifying and reframing the original hypothesis; and proposing new questions about the topic.
- BIOL 21: Correlate form to function for cellular structures involved with animal and plant metabolism, regulation of cell cycles, and signal transduction.
- BIOL 21: Demonstrate confidence in their understanding of biological concepts and the scientific method to evaluate and critique current media or a scientific report.
- BIOL 22: Apply the scientific method by proposing a hypothesis; researching the topic; determining appropriate tests; performing tests; collecting, analyzing, and presenting data; and finally proposing new questions about the topic.
- BIOL 22: Analyze polymorphisms found in genomes by Polymerase Chain Reaction.
- BIOL 22: Analyze and interpret the effect of genotype on phenotype.
- BIOL 22: Evaluate and critique the relationships between data from molecular biology methods and genetic patterns of inheritance.
- BIOL 22: Interpret the effects of DNA mutations on patterns of inheritance.
- BIOL 22: Demonstrate confidence in their understanding of biological concepts and the scientific method to evaluate and critique current media or a scientific report.
- BIOL 23: Students will be able to: a. Research a topic in current scientific literature. b. Formulate a hypothesis using the research topic. c. Design experiment(s) to test the hypothesis. d. Perform experiment(s). e. Analyze and present data. f. Develop and defend conclusions. g. Evaluate original hypothesis and methodology.
- BIOL 23: Students will be able to: a. Distinguish among plant phyla using morphological characteristics. b. Use phylogenetic trees to infer evolutionary relationships among plant phyla.
- BIOL 23: Students will be able to: a. Distinguish among animal phyla using morphological characteristics. b. Understand the form and function in relation to the habitat of these animals.
- BIOL 23: Demonstrate confidence in their understanding of biological concepts and the scientific method to evaluate and critique current media or a scientific report.
- CHEM 11: The student will demonstrate the ability to solve scientific problems by following logical procedures based on well-established scientific principles.
- CHEM 11: (a)The student will follow written procedures used in the general chemistry laboratory accurately and safely. (b)When completing a lab report, the student will correctly apply the scientific method by making reasonable estimates of experimental uncertainties and drawing appropriate conclusions based on the gathered data and scientific principles.
- CHEM 11: The student will be able to relate microscopic theories to macroscopic observations specifically using the chemical principles developed in Chemistry 11 to explain observable phenomena.

- CHEM 12: The student will demonstrate the ability to solve scientific problems by following logical procedures based on well-established scientific principles.
- CHEM 12: (a) The student will follow written procedures used in the general chemistry laboratory accurately and safely. (b)When completing a lab report, the student will correctly apply the scientific method by making reasonable estimates of experimental uncertainties and drawing appropriate conclusions based on the gathered data and scientific principles.
- CHEM 12: The student will be able to relate microscopic theories to macroscopic observations specifically using the chemical principles developed in Chemistry 12 to explain observable phenomena.
- MATH 7: Given an algebraic or trigonometric function, evaluate and apply limits and prove basic limit statements.
- MATH 7: Given an algebraic or trigonometric function, differentiate the function and solve application problems involving differentiation.
- MATH 7: Given an algebraic or trigonometric function, integrate the function and solve application problems involving integration.

Demonstrate scientific methodology, using both laboratory and field research methods, to formulate falsifiable hypotheses and experimental designs, as well to conduct the research and critically analyze and interpret the data.

- BIOL 21: Apply the scientific method to investigate a question by formulating a hypothesis; researching the topic; performing tests; generating, analyzing, and presenting data; modifying and reframing the original hypothesis; and proposing new questions about the topic.
- BIOL 21: Correlate form to function for cellular structures involved with animal and plant metabolism, regulation of cell cycles, and signal transduction.
- BIOL 21: Demonstrate confidence in their understanding of biological concepts and the scientific method to evaluate and critique current media or a scientific report.
- BIOL 22: Apply the scientific method by proposing a hypothesis; researching the topic; determining appropriate tests; performing tests; collecting, analyzing, and presenting data; and finally proposing new questions about the topic.
- BIOL 22: Analyze polymorphisms found in genomes by Polymerase Chain Reaction.
- BIOL 22: Analyze and interpret the effect of genotype on phenotype.
- BIOL 22: Evaluate and critique the relationships between data from molecular biology methods and genetic patterns of inheritance.
- BIOL 22: Interpret the effects of DNA mutations on patterns of inheritance.
- BIOL 22: Demonstrate confidence in their understanding of biological concepts and the scientific method to evaluate and critique current media or a scientific report.
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- BIOL 23: Students will be able to: a. Distinguish among plant phyla using morphological characteristics. b. Use phylogenetic trees to infer evolutionary relationships among plant phyla.
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- MATH 7: Given an algebraic or trigonometric function, differentiate the function and solve application problems involving differentiation.
- MATH 7: Given an algebraic or trigonometric function, integrate the function and solve application problems involving integration.

Demonstrate problem-solving skills to address challenges in biological research by applying critical thinking and creative approaches.

- BIOL 21: Apply the scientific method to investigate a question by formulating a hypothesis; researching the topic; performing tests; generating, analyzing, and presenting data; modifying and reframing the original hypothesis; and proposing new questions about the topic.
- BIOL 21: Correlate form to function for cellular structures involved with animal and plant metabolism, regulation of cell cycles, and signal transduction.
- BIOL 21: Demonstrate confidence in their understanding of biological concepts and the scientific method to evaluate and critique current media or a scientific report.
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- BIOL 22: Evaluate and critique the relationships between data from molecular biology methods and genetic patterns of inheritance.
- BIOL 22: Interpret the effects of DNA mutations on patterns of inheritance.
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- MATH 7: Given an algebraic or trigonometric function, differentiate the function and solve application problems involving differentiation.
- MATH 7: Given an algebraic or trigonometric function, integrate the function and solve application problems involving integration.

Demonstrate professional work habits, technical competencies, awareness of biology's impact on society and the environment, and adherence to scientific protocols through hands-on experiences, while also demonstrating and practicing ethical conduct in scientific research.

- BIOL 21: Apply the scientific method to investigate a question by formulating a hypothesis; researching the topic; performing tests; generating, analyzing, and presenting data; modifying and reframing the original hypothesis; and proposing new questions about the topic.
- BIOL 21: Correlate form to function for cellular structures involved with animal and plant metabolism, regulation of cell cycles, and signal transduction.
- BIOL 21: Demonstrate confidence in their understanding of biological concepts and the scientific method to evaluate and critique current media or a scientific report.
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- BIOL 22: Analyze and interpret the effect of genotype on phenotype.
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- CHEM 11: (a)The student will follow written procedures used in the general chemistry laboratory accurately and safely. (b)When completing a lab report, the student will correctly apply the scientific method by making reasonable estimates of experimental uncertainties and drawing appropriate conclusions based on the gathered data and scientific principles.
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- MATH 7: Given an algebraic or trigonometric function, integrate the function and solve application problems involving integration.

Biology Majors Series	**Units: 13.0**
BIOL 21[DE] Cell Biology and Evolution	4.0
BIOL 22 Genetics and Molecular Biology	4.0
BIOL 23 Organismal and Environmental Biology	5.0

Math	**Units: 5.0**
MATH 7[DE] Calculus 1	5.0

Physical Sciences	**Units: 10.0**
CHEM 11[DE] General Chemistry I	5.0
CHEM 12[DE] General Chemistry II	5.0

Total: 28.0

Release Date: 02/01/2026
ADT Submission Form #: 2014
ADT Submission Form for Biology 2.0

TOP Code: 0401.00
CIP Code: 26.0101
CCC Major or Area of Emphasis: Biology
CSU Majors deemed similar: Biology
Degree Type: AS-T
Total Minimum Semester Units for Major or Area of Emphasis: 21-30
Permissible maximum units for the major may vary depending on the units necessary for completion of the general education requirement and the extent of double-counting permitted.

In the four columns to the right under the **College Program Requirements**, enter the college's course identifier, title and the number of units comparable to the course indicated for the form. If the course may be double-counted with Cal-GETC, enter the GE Area to which the course is articulated. To review the GE Areas and associated unit requirements, please go to **Chancellor's Office Academic Affairs** page or the **ASSIST** website

The units indicated in the template are the **minimum** semester units required for the prescribed course or list.

- All courses must be CSU transferable.
- All courses with an identified **C-ID** Descriptor must be submitted to C-ID **prior** to submission of the Associate Degree for Transfer (ADT) proposal to the Chancellor's Office.
- Where no C-ID Descriptor is indicated, discipline faculty should compare their existing course to the example course(s) provided in the form at the **C-ID** website

Attach the appropriate **ASSIST** documentation as follows:

- Articulation Agreement by Major (AAM) demonstrating lower division preparation in the major at a CSU;
- CSU Baccalaureate Level Course List by Department (BCT) for the transfer courses; and/or,
- Cal-GETC Certification Course List by Area (GECC).
- The acronyms **AAM, BCT,** and **GECC** will appear in C-ID Descriptor column directly next to the course to indicate which report will need to be attached to the proposal to support the course's inclusion in the transfer degree.

Associate in Science in Biology 2.0 for Transfer Degree	**College Name:** SANTA MONICA COLLEGE

TRANSFER MODEL CURRICULUM (TMC)		**COLLEGE PROGRAM REQUIREMENTS**			
Course Title (units)	**C-ID Descriptor**	**Course ID**	**Course Title**	**Units**	**Cal-GETC**
REQUIRED CORE: (21-26 units)					
Biology Sequence for Majors (8)	BIOL 135S	BIOL 21	Cell Biology and Evolution	4	5B/5C
OR		AND			
Cell and Molecular Biology (4) **and**	BIOL 190	BIOL 22	Genetics and Molecular	4	5B/5C
Organismal Biology (4)	BIOL 140	AND	Biology		
OR					
Cell and Molecular Biology (4) **and**	BIOL 190	BIOL 23	Organismal and	5	5B/5C
Organismal Biology, Ecology and Evolution (8)	BIOL 130S		Environmental Biology		
OR					

TRANSFER MODEL CURRICULUM (TMC)		COLLEGE PROGRAM REQUIREMENTS			
Course Title (units)	**C-ID Descriptor**	**Course ID**	**Course Title**	**Units**	**Cal-GETC**
Cell and Molecular Biology (4) **and** Zoology/Animal Diversity and Evolution (4) **and** Botany/Plant Diversity and Ecology (4)	BIOL 190 BIOL 150 BIOL 155				
General Chemistry for Science Majors Sequence A (10)	CHEM 120S	CHEM 11 AND CHEM 12	General Chemistry I General Chemistry II	5 5	5A/5C 5A/5C
Single Variable Calculus I – Early Transcendentals (4) **OR** Single Variable Calculus I – Late Transcendentals (4) **OR** Calculus for Life and Social Sciences (3)	MATH 210 MATH 211 AAM	MATH 7	Calculus 1	5	2
List A – Select additional major preparation (if possible based on unit limitation and if required articulation exists, zero to one course (0-4 units minimum):					
Select one (1) additional course that is articulated as major preparation at a CSU campus (0-4)	AAM				

Total Units for the Major:	**21-30**	**Total Units for the Major:**	27-28
		Total Units that may be double-counted (***The transfer GE Area limits must not be exceeded)***	10
		General Education (Cal-GETC) Units	**34**
		Elective (CSU Transferable) Units	8-9
		Total Degree Units (maximum)	**60**

Notes and History

Prior TMC included:
Use of a transferable general education pattern designed for STEM (i.e., IGETC or CSU GE Breadth for STEM) is presumed.

	Biology 2.0 / AST						Cal-GETC				
	Official Course Prefix and # (if RE: identify only the "category"; If GE, or EL: indicate as such)	Priority order of PR or RE course(s) within each semester (used to develop a part-time student ed plan)	Type of course PR: Program Requirement RE: Restricted Elective of Program GE: General Education EL: Elective (not in program) PREREQ ADVISORY	Cal-GETC	"Gateway" course? (based on definition)	# of Units	TOTAL weekly hours (full semester)	Course Advisory (must be in map prior); do NOT include "eligibility for English 1"	Course Prerequisites (P), Corequisite (C) (must be included in proper sequence)	Intersession Option? - YES -- (MAX of 8 units)	REVIEWER COMMENTS/NOTES: Also include HERE any recommendations made by mapping team for RE, GE, or EL identified in the original map OVERALL COMMENTS CAN BE MADE IN TEXT BOX AT BOTTOM OF SPREADSHEET
SEMESTER 1	ENGL C1000		GE	1A		3	9			YES	
	CHEM 10	1	GE / PREREQ	5A / 5C	YES	5	15				
	MATH 2	2	GE / PREREQ	2		5	15				
	COUNS 20		EL			3	9			YES	or COUNS 12 (1)
	TOTAL Semester 1					**16**	**48**				
	ENGL C1001		GE	1B		3	9		ENGL C1000 (P)	YES	
	CHEM 11	1	PR			5	15		CHEM 10 (P)		
	MATH 7	2	PR			5	15		MATH 2 (P)		
	TOTAL Semester 2					**13**	**39**				
SEMESTER 3	CHEM 12	2	PR			5	15		CHEM 11 / MATH 2 (P)		
	GE		GE	1C		3	9			YES	
	GE		GE	4		3	9			YES	
	BIOL 21	1	PR / GE	5B	YES	4	12		CHEM 11 (P)		
	TOTAL Semester 3					**15**	**45**				
SEMESTER 4	GE		GE	6		3	9				
	BIOL 22	1	PR			4	12	CHEM 21	BIOL 21 / CHEM 11 (P)		
	GE		GE	4		3	9			YES	
	GE		GE	3B		3	9			YES	
	TOTAL Semester 4					**13**	**39**				
SEMESTER 5	GE		GE	3A		3	9			YES	
	BIOL 23	1	PR			5	15		BIOL 22 (P)		
	TOTAL Semester 5					**8**	**24**				

NOTE: Program Map will be 2 years (4 semesters) after approval of new BIOL sequence (BIOL 1A/1B/1L) which will allow for completion of General Biology in one year. This map can also be adjusted depending on students' placement level in CHEM and MATH.