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

Curriculum Committee Agenda

Wednesday, March 29, 2023, 3:00 p.m.

Zoom Meeting:

Join from PC, Mac, Linux, iOS or Android: https://cccconfer.zoom.us/j/96386192571

Or iPhone one-tap (US Toll): +16699006833,96386192571# or +16694449171,96386192571#

Or Telephone:
+1 669 900 6833 (US Toll)
+1 669 444 9171 (US Toll)
+1 346 248 7799 (US Toll)
+1 253 215 8782 (US Toll)
+1 564 217 2000 (US Toll)
+1 646 876 9923 (US Toll)
+1 646 931 3860 (US Toll)
+1 301 715 8592 (US Toll)
+1 312 626 6799 (US Toll)
+1 386 347 5053 (US Toll)
Meeting ID: 963 8619 2571
International numbers available: https://cccconfer.zoom.us/u/abqJVu9Gkv

Or Skype for Business (Lync): SIP:96386192571@lync.zoom.us

Members:

Sal Veas, *Chair*	Fariba Bolandhemat	Aileen Huang	Redelia Shaw
Patricia Ramos, *Vice Chair*	Susan Caggiano	Alex Ibaraki	Scott Silverman
Bren Antrim	Javier Cambron	Sharlene Joachim	Briana Simmons
Alyssa Arreola (A.S.)	Dione Carter	Jing Liu	Lydia Strong
Jason Beardsley	Rachel Demski	Jacqueline Monge	Audra Wells
Mary Bober	Christina Gabler	Matthew Musselman	Associated Students Rep
Walter Butler	Walker Griffy	Estela Narrie	

Interested Parties:

Joelle Adams	Department Chairs	Kamiko Greenwood (A.S.)	Stacy Neal
Stephanie Amerian	Nathaniel Donahue	Tracie Hunter	Tammara Whitaker
Maria Bonin	Kiersten Elliott	Maral Hyeler	

Ex-Officio Members:
Jamar London

(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 3
V. Chair's Report

VI. Information Items

1. New 8th Edition Program and Course Approval Handbook (PCAH)
2. New Chancellor's Office Curriculum Submissions Approval Technical Manual
3. Eligibility for English 1 Advisories
4. Guided Pathways Institute #4

VII. Action Items

(Consent Agenda: Program Maps)

a. Analog Photography Certificate of Achievement Program Map 6
b. Digital Technician Certificate of Achievement Program Map 7
c. Photographer's Assistant Certificate of Achievement Program Map 8
d. Photographic Retouching Certificate of Achievement Program Map 9
e. Video for Photographers Certificate of Achievement Program Map 10

(Courses: New)

f. ART 906 Print Shop Tools 11
g. ART 910 Introduction to Digital Fabric Tools 15
h. BIOL 30 Fundamentals of Biotechnology 1 19

(Courses: Distance Education)

i. ART 906 Print Shop Tools 12
j. ART 910 Introduction to Digital Fabric Tools 16
k. BIOL 30 Fundamentals of Biotechnology 1 (Hybrid Only) 23

(Programs: Revisions)

l. 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 Sal Veas, Patricia Ramos, and Rachel Demski by email if you are unable to attend this meeting.

The next Curriculum Committee meeting is April 19, 2023.

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

Curriculum Committee Minutes

Wednesday, March 15, 2023, 3:00 p.m.

Zoom Meeting

Members Present:

Sal Veas, *Chair*	Fariba Bolandhemat	Aileen Huang	Estela Narrie
Patricia Ramos, *Vice Chair*	Javier Cambron	Alex Ibaraki	Redelia Shaw
Alyssa Arreola (A.S.)	Rachel Demski	Sharlene Joachim	Scott Silverman
Jason Beardsley	Christina Gabler	Jing Liu	Briana Simmons
Mary Bober	Walker Griffy	Matthew Musselman	Audra Wells

Members Absent:

Bren Antrim	Susan Caggiano	Jacqueline Monge	Lydia Strong
Walter Butler	Dione Carter		

Others Present:

Chanté DeLoach	Vicky Seno	Howard Stahl	Odemaris Valdivia
Walter Meyer			

(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 3:03 pm. Motion to approve the agenda with no revisions.
Motion made by: Christina Gabler; **Seconded by:** Estela Narrie
The motion passed unanimously. *(Mary Bober not present for vote)*

II. Public Comments

None

III. Announcements

None

IV. Approval of Minutes

Motion to approve the minutes of March 1, 2023 with correction to add Alex Ibaraki to Members Present.
Motion made by: Fariba Bolandhemat; **Seconded by:** Scott Silverman
The motion passed unanimously. *(Mary Bober not present for vote)*

V. Chair's Report

Updates to the Curriculum Committee meeting schedule for Spring 2023:

- March 29 – scheduled
- April 5 – cancelled
- April 19
- May 3
- May 17
- May 31 – tentative

VI. Information Items

VII. Action Items

(Courses: New)

a. ART 902 3D Design Output
Motion to approve ART 902 with no revisions.
Motion made by: Audra Wells; **Seconded by:** Briana Simmons
The motion passed unanimously. *(Estela Narrie not present for vote)*

b. ART 904 Laser Cutting & Engraving
Motion to approve ART 904 with no revisions.
Motion made by: Audra Wells; **Seconded by:** Briana Simmons
The motion passed unanimously. *(Estela Narrie not present for vote)*

(Courses: Substantial Changes)

c. CS 82B Principles of Data Science (Addition: Advisory CS 87A)
Motion to approve addition of advisory CS 87A for CS 82B with no additional revisions.
Motion made by: Fariba Bolandhemat; **Seconded by:** Walker Griffy
The motion passed unanimously. *(Estela Narrie not present for vote)*

d. PSYCH 8 Community Psychology (Changed: description, SLOs, objectives, content, textbooks)
Motion to approve changes to PSYCH 8 with no additional revisions.
Motion made by: Sharlene Joachim; **Seconded by:** Alex Ibaraki
The motion passed unanimously. *(Estela Narrie not present for vote)*

(Courses: Distance Education)

e. ART 902 3D Design Output
Motion to approve distance education for ART 902 with no revisions.
Motion made by: Briana Simmons; **Seconded by:** Walker Griffy
The motion passed unanimously. *(Estela Narrie not present for vote)*

f. ART 904 Laser Cutting & Engraving
Motion to approve distance education for ART 904 with no revisions.
Motion made by: Jing Liu; **Seconded by:** Alex Ibaraki
The motion passed unanimously. *(Estela Narrie not present for vote)*

g. PSYCH 8 Community Psychology
Motion to approve distance education for PSYCH 8 with no revisions.
Motion made by: Sharlene Joachim; **Seconded by:** Audra Wells
The motion passed unanimously. *(Estela Narrie not present for vote)*

(Programs: New)

h. Enterprise Service Clerk Certificate of Achievement
Motion to approve Enterprise Service Clerk Certificate of Achievement with typo correction on the narrative for OFTECH 33 to 2 units.
Motion made by: Fariba Bolandhemat; **Seconded by:** Jason Beardsley
The motion passed unanimously. *(Estela Narrie not present for vote)*

i. ESL Department Certificate
Motion to approve ESL Department Certificate with no revisions.
Motion made by: Walker Griffy; **Seconded by:** Jason Beardsley
The motion passed unanimously. *(Estela Narrie not present for vote)*

(Programs: Revisions)

j. 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: Audra Wells; **Seconded by:** Fariba Bolandhemat
The motion passed unanimously. *(Estela Narrie not present for vote)*

VIII. New Business
None

IX. Old Business
None

X. Adjournment
Motion to adjourn the meeting at 4:05 pm.
Motion made by: Christina Gabler; **Seconded by:** Redelia Shaw
The motion passed unanimously. *(Estela Narrie not present for vote)*

	Analog Photography / CoA						N/A				
	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	**Satisfies GE Area and/or GC (specify area)**	**"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	PHOTO 1	1	ADVISORY		YES	3	9			YES	
	PHOTO 2	2	PR		YES	2	6	PHOTO 1			
	PHOTO 21	3	PR			3	9	PHOTO 2			Offered Fall term only
						8	**24**				
SEMESTER 2	PHOTO 50	1	PR			3	9	PHOTO 2			
	TOTAL Semester 2					**3**	**9**				
SEMESTER 3	PHOTO 37	1	PR			3	9	PHOTO 2			
	TOTAL Semester 3					**3**	**9**				
SEMESTER 4	PHOTO 64	1	PR			4	12	PHOTO 2			Offered Spring term only
	TOTAL Semester 4					**4**	**12**				

	Digital Technician / CoA						N/A				
	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	Satisfies GE Area and/or GC (specify area)	"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	PHOTO 1	1	ADVISORY		YES	3	9			YES	
	PHOTO 5	2	PR			3	9	PHOTO 1			
	PHOTO 30	3	PR			4	12		PHOTO 5 (P/C)		
						10	30				
SEMESTER 2	PHOTO 39	1	PR			3	9		PHOTO 5		
	TOTAL Semester 2					3	9				
SEMESTER 3	PHOTO 42	1	PR			3	9		PHOTO 39		
	TOTAL Semester 3					3	9				
SEMESTER 4	PHOTO 34	1	PR			4	12		PHOTO 30; 39		
	TOTAL Semester 4					4	12				

	Photographer's Assistant / CoA						N/A				
	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	Satisfies GE Area and/or GC (specify area)	"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	PHOTO 1	1	PR		YES	3	9			YES	
	PHOTO 5	2	PR			3	9	PHOTO 1			
						6	18				
SEMESTER 2	PHOTO 30	1	PR			4	12	PHOTO 1	PHOTO 5 (P / C)		
	PHOTO 39	2	PREREQ			3	9		PHOTO 5 (P)	YES	
	TOTAL Semester 2					7	21				
SEMESTER 3	PHOTO 32	1	PR			4	12		PHOTO 30, 39 (P)		
	TOTAL Semester 3					4	12				
SEMESTER 4	PHOTO 33	1	PR			4	12		PHOTO 30 (P); PHOTO 39 (P / C)		
	TOTAL Semester 4					4	12				

	Photographic Retouching / CoA						N/A				
	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	Satisfies GE Area and/or GC (specify area)	"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	PHOTO 1	1	ADVISORY		YES	3	9			YES	
	PHOTO 5	2	PR			3	9	PHOTO 1			
						6	18				
SEMESTER 2	PHOTO 39	1	PR			3	9		PHOTO 5 (P)		
	TOTAL Semester 2					3	9				
SEMESTER 3	PHOTO 42	1	PR			3	9		PHOTO 39 (P)		
	TOTAL Semester 3					3	9				

	Video for Photographers / CoA						N/A				
	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	Satisfies GE Area and/or GC (specify area)	"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	PHOTO 1	1	ADVISORY		YES	3	9			YES	
	PHOTO 5	2	ADVISORY			3	9	PHOTO 1			
						6	**18**				
SEMESTER 2	PHOTO 70	1	PR		YES	3	9	PHOTO 1; 5			
	TOTAL Semester 2					**3**	**9**				
SEMESTER 3	PHOTO 71	1	PR			3	9	PHOTO 1; 5			Offered Fall term only
	PHOTO 30	2	ADVISORY			4	12		PHOTO 5 (P/C)		
	TOTAL Semester 3					**7**	**21**				
SEMESTER 4	PHOTO 72	1	PR			3	9	PHOTO 30; 70			Offered Spring term only
	TOTAL Semester 4					**3**	**9**				

New Course: ART - NONCREDIT 906, Print Shop Tools

Units:	0.00
Total Instructional Hours (usually 18 per unit):	18.00
Hours per week (full semester equivalent) in Lecture:	1.00
In-Class Lab:	0.00
Arranged:	0.00
Outside-of-Class Hours:	36.00
Degree Applicability:	Noncredit
Proposed Start:	Spring 2023
TOP/SAM Code:	109900 - Other Fine and Applied Arts / C - Clearly Occupational
Grading:	Noncredit (Progress Indicators Used)
Repeatability:	Yes
Library:	Library has adequate materials to support course
Minimum Qualification:	Commercial Art
Program Impact:	None

Rationale
The art department has acquired a slew of digital fabrication tools that serve occupational goals while also enhancing their Fine Art degree.

I. **Catalog Description**
This course will be an introduction to the use of Digital Tools commonly found in a print shop that are used for art and industry including: Vinyl Printer, Large format printing and mounting, and heat transfer printing. Students will utilize existing files and format them to print on a variety of materials including vinyl, paper and fabric. This course is for those who have designs and ideas and want to learn how to use print shop tools to implement them and those who want to work in this growing area of custom consumer products.

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. A guide to Graphic Print Production, 3, Peter Lundberg, Wiley © 2011, ISBN: 0470907924
2. Adobe Photoshop in a Book, 2, Conrad Chavez, Adobe Press © 2022, ISBN: 0137965893

III. **Course Objectives**
Upon completion of this course, the student will be able to:
1. Demonstrate the ability to use the various Print Shop Tools including a Large Format Printer
2. Distinguish the advantages and disadvantages of the various Print Shop output processes.
3. Examine the various roles that these machines play in art and industry
4. Troubleshoot and resolve common challenges
5. Develop a plan for how one might directly use these machines for a work or project for ones own practice or in industry

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

V. **Course Content**

% of Course	Topic
20.000%	Overview of Print Shop Digital machines and their different uses in art and industry
20.000%	Overview of Different Print Shop Tools and machines and strengths and weaknesses of each
20.000%	Safety Issues with digital print shop tools and machines
30.000%	Utilizing software with the Digita Print shop tools and machines
10.000%	Collaboration and team work on projects using digital print shop tools and machines
100.000%	Total

VI. **Methods of Evaluation**

% of Course	Topic
25%	Class Work
10%	Exams/Tests
20%	Final Project
15%	Group Projects
10%	Homework
20%	Projects
100%	Total

VII. **Sample Assignments:**
Vinyl Printing: Using an existing software file (Could be yours or someone else's) and move it from a raster or vector file to PDF. Format the file so that it is ready to be printed, adjusting for size and scale as necessary. Successfully, print the design on vinyl and prepare it for view (cutting to size, grommet-ting, etc.
Large Format Printing: Using an existing software file (Could be yours or someone else's) and move it to PDF. Format the file so that it is ready to be printed, adjusting for size and scale as necessary. Successfully, print the file and prepare it for view (cutting to size, mounting on foam core, etc.)

VIII. **Student Learning Outcomes:**
1. Describe key aspects of common Print Shop Tools and their uses
2. Choose among the various types of common Print Shop Tools for the right option for the outcome
3. Describe the techniques used to fix common challenges with Print Shop tools and demonstrate proficiency in trouble shooting to resolve the issues
4. Demonstrate a level of engagement in the subject matter that reveals an understanding of the value of the course content beyond the task itself, specifically as it relates to linking the relevance of course content to careers in Print Shops and their personal lives.

ART 906 Distance Education Application

☑ Fully Online

1a. Instructor - Student Interaction:
The instructor will be in regular contact with students. There will be a discussion for each individual topic as well as one for general questions concerning the course which the instructor will check daily and our goal is to respond to all questions within 24 hours. The instructor will send regular announcements to the class using the Announcement feature in the learning management system (LMS) in place at the beginning of every week, and during the week as needed, and will also send all announcements via email. The instructor will respond to students' comments and questions via discussion boards, email, and the mail option on the LMS. The instructor's contact information will be located both on the syllabus, as well as on the introduction discussion. The instructor will provide support as needed for course navigation - the instructor will send out a welcome letter before the class starts with information about course content, expectations, how to navigate online courses, and references for the students to review about online courses. During the class, the instructor will regularly communicate with students about assignments, quizzes, and exams. There will be clear and detailed instructions embedded in each module and activity, and the instructor will also contact students with important reminders and with key points. The instructor will provide feedback to students individually as well as to the entire class. For example, the instructor may post a general feedback message to the class about a topic. The instructor will also host weekly online office hours where students can talk one on one either with any questions or concerns they have. Instructors can also provide recorded info sessions for projects. Students receive feedback on individual and group assignments as well as through group critiques that happen asynchronously

1b. Student - Student Interaction:
Students will communicate regularly with each other via the LMS, currently Canvas. For each module, students will interact in a threaded discussion for each assignment. Students will respond to a discussion topic and will then respond to each other. Student-student interaction is designed to reinforce the course material and learning outcomes as well as to build a sense of community among learners. Students will be asked to collaborate and corroborate on assignments as well as participate in peer discussions and group critiques.

1c. Student - Content Interaction:
Students interact with course materials several times a week. Each module will have an overview, with all of the expectations, goals, and dates listed for that module. For each module, students will read any assigned material, watch the instructor's lecture and demonstration lecture notes, multimedia video lectures, Pages in LMS and web content. The instructor will provide a range of assignments and activities to address different learning styles. Other assignments may ask students to research a topic and report back to the class via discussion board or other method.

1d. Distance Ed Interactions:

Online class activities that promote class interaction and engagement	Brief Description	% of Online Course Hours
Discussion Boards	Students will post responses to topics and interact with peers and the faculty	20.00%
Project Presentation	Students will document their projects and post a written and audio/visual summary. This will be submitted as an assignment so students can garner instructor feedback before posting publicly on a discussion board.	35.00%
Exams	Quizzes will be administered to make sure basic concepts are understood .	10.00%
Online Lecture	Students will watch a video lecture on a pertinent course topic. They will be asked to take notes on the video in preparation for a discussion on this topic. Students are encouraged to post any questions they have about this topic on the "General Questions" discussion board so that the instructor can address them. Students can join in on the discussion.	35.00%

2. Organization of Content:
Content will be structured in a similar manner as ground delivery. Students will have access to lecture content and visual examples along with appropriate demonstrations of technique and assignment and projects. The course includes Information, Learning, and Communication/Collaboration features that coincide with student learning outcomes specified in the course outline. The course is divided into modules or units that coincide directly with those concepts and objectives described on the course outline. A typical instructional module includes (1) written assignment directions / multimedia references; (2) support materials; (3) instructional activities and practices; (4) discussion forum(s); (5) graded assignment(s); (6) other course-specific components as necessary. The material is presented through the available technologies. Assignment activities allow students to assess their performance and progress in each module at their own pace within the general deadlines provided. Class activities provide immediate feedback to ensure progressive involvement and successful completion of each module in the course. There will be opportunities for students to participate in synchronous office hours and live demos as well as recorded demonstrations. Canvas has robust tools including the creation of content pages where links to recorded zoom and YouTube videos can be placed along with text and images. Discussion boards will be utilized for students to show work in progress and give/get feedback from other students and instructors. The content is organized into modules. Modules are consistently structured and sequenced to allow students to better anticipate and manage their workload. A variety of modalities, such as text, audio, video, images and/or graphics, and 3D models are used to create student-centered learning. There will also be links provided on a regular basis that will bring to the attention of students current events that have relevance to the course.

3. Assessments:

% of grade	Activity	Assessment Method
40.00%	Using Equipment	Using an existing software file (could be yours or someone else's) and move it to PDF. Using the appropriate software, format it so that it is ready to be printed, adjusting for size and scale as necessary. Upload the new file. Successfully, print the work and prepare it for view, Document the stages of the project with edited video or stills and a written explanation.
30.00%	Final Project	Develop a project that uses Digital Print Shop Tools. Documentation submitted and posted in discussion boards.
20.00%	Quizzes	Module quizzes to ensure safety and proper tool use.
10.00%	Research	Discussion posts on assigned research topics

4. Instructor's Technical Qualifications:
Faculty will need to be experts on the maker equipment and comfortable demonstrating via live streaming technologies like zoom. They will know how to use the current LMS and should have received training for teaching online if they have not already demonstrated this proficiency. For example, an instructor could take the @One training courses, as well as attend workshops at SMC, consult with other faculty, and participate in distance education activities offered, such as the

peer review of course shells. The instructor should have a good working knowledge of the Canvas LMS, as well as proficiency in disseminating information digitally, such as lecture videos, Digital Presentations, audio files, etc.

5. Student Support Services:
Students will need to be able to come to SMC to use equipment or find other local sources for maker equipment. This is becoming more available as public institutions like libraries and community centers are increasingly having make equipment available tot he public. The other students support services are all set for online studio courses.

6. Accessibility Requirements:
All video content will be closed captioned and Canvas has many built in features like Alt text for images to ensure accessibility. Text documents will be uploaded as word docs and use style formatting that allows for clear interpretation by screen reading software. When courses are evaluated, we go through a rigorous accessibility compliance check with our department Accessibility representative Christopher Badger.

7. Representative Online Lesson or Activity:
CO- Distinguish the advantages and Disadvantages of the various digital Print Shop Tools output processes.
Assignment- Using an existing software file (Could be yous or someone else's) and move it to PDF. Using the new PDF, format it so that it is ready to be printed, adjusting for size and scale as necessary. Successfully, print the work and prepare it for view.
Step 1- Submit an image (Screenshot) of your original file in the discussion board to get feedback and evaluation and determine if it is a good fit for printing and which type of printer to use
Step 2- Translate the file to PDF and submit it to the assignment
Step 3- Format the file for use by a machine available at SMC
Step 4- document the process of printing, noting any challenges and submit a link to the video file or PDF.
Step 5- post your finished project in the threaded discussion to get feedback and insights from your peers. Make sure to reply to another's post on what you learned from their selected project.

New Course: ART - NONCREDIT 910, Introduction to Digital Fabric Tools

Units:	0.00
Total Instructional Hours (usually 18 per unit):	18.00
Hours per week (full semester equivalent) in Lecture:	1.00
In-Class Lab:	0.00
Arranged:	0.00
Outside-of-Class Hours:	36.00
Degree Applicability:	Noncredit
Proposed Start:	Spring 2023
TOP/SAM Code:	109900 - Other Fine and Applied Arts / C - Clearly Occupational
Grading:	Noncredit (Progress Indicators Used)
Repeatability:	Yes
Library:	Library has adequate materials to support course
Minimum Qualification:	Commercial Art
Program Impact:	None

Rationale
The art department has acquired a slew of digital fabrication tools that serve occupational goals while also enhancing their Fine Art degree.

I. **Catalog Description**
This course will be an introduction to the use of fabric printing and embroidery for art and industry. Students will utilize existing files and format them to print and/embroider on a variety of materials including fabric and canvas. This course is for those who have designs and ideas and want to learn how to use a fabric printer and embroidery machine to implement them and those who want to work in this growing area of custom consumer products.

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 Complete Pattern Directory: 1500 Designs from All Ages and Cultures, Elizabeth Wilhide, Black Dog © 2018, ISBN: 0316418234
2. Embroidery Machine Profits, Trevor Hunt, Independent © 2020, ISBN: 979-8673849309

III. **Course Objectives**
Upon completion of this course, the student will be able to:
1. Demonstrate the ability to use the various Digital Fabric Tools including: Fabric Printing, Heat Transfer, and Embroidery printing.
2. Distinguish the advantages and disadvantages of the various Digital Fabric Tool output processes.
3. Examine the various roles that these machines play in art and industry
4. Troubleshoot and resolve common challenges with Digital fabric Tools
5. Develop a plan for how one might directly use these machines for a work or project for ones own practice or in industry

IV. **Methods of Presentation:**
Distance Education, Lecture and Discussion, Observation and Demonstration, Discussion, Critique, Projects

V. **Course Content**

% of Course	Topic
10.000%	Collaboration and team work on projects using fabric printers and embroidery machines
20.000%	Overview of fabric printer and embroidery machines and their different uses in art and industry
30.000%	Utilizing software with the fabric printers and embroidery machines for printing and stitching
20.000%	Overview of Different fabric printers and embroidery machines and strengths and weaknesses of each
20.000%	Safety Issues with fabric printers and embroidery machines

100.000%	Total

VI. **Methods of Evaluation**

% of Course	Topic
25%	Class Work
10%	Exams/Tests
20%	Final Project
15%	Group Projects
10%	Homework
20%	Projects
100%	Total

VII. **Sample Assignments:**

Fabric Printing: Using an existing software file (Could be yours or someone else's) and move it from a raster to a vector file. For instance if you created your file in Photoshop, move it to Illustrator. Format the file so that it is ready to be printed, adjusting for size and scale as necessary. Successfully, print the design on fabric and prepare it for view.

Embroidery Machine: Using an existing software file (Could be yours or someone else's) and move it from a vector to a PES file. For instance if you created your file in Illustrator run through Illustrator embroidery plug in . Format the file so that it is ready to be printed, adjusting for size and scale as necessary. Successfully embroider the design and prepare it for view.

VIII. **Student Learning Outcomes:**

1. Describe key aspects of Digital Fabric Technologies and their uses in Art and Industry
2. Choose among the various types of Digital Fabric Technologies and for the right option for the outcome.
3. Describe the techniques used to fix common challenges with Digital Fabric Tools and demonstrate proficiency in trouble shooting to resolve the issues.
4. Demonstrate a level of engagement in the subject matter that reveals an understanding of the value of the course content beyond the task itself, specifically as it relates to linking the relevance of course content to careers in utilizing Digital fabric Tools and their personal lives.

ART 910 Distance Education Application

☑ Fully Online

1a. Instructor - Student Interaction:

The instructor will be in regular contact with students. There will be a discussion for each individual topic as well as one for general questions concerning the course which the instructor will check daily and our goal is to respond to all questions within 24 hours. The instructor will send regular announcements to the class using the Announcement feature in the learning management system (LMS) in place at the beginning of every week, and during the week as needed, and will also send all announcements via email. The instructor will respond to students' comments and questions via discussion boards, email, and the mail option on the LMS. The instructor's contact information will be located both on the syllabus, as well as on the introduction discussion. The instructor will provide support as needed for course navigation - the instructor will send out a welcome letter before the class starts with information about course content, expectations, how to navigate online courses, and references for the students to review about online courses. During the class, the instructor will regularly communicate with students about assignments, quizzes, and exams. There will be clear and detailed instructions embedded in each module and activity, and the instructor will also contact students with important reminders and with key points. The instructor will provide feedback to students individually as well as to the entire class. For example, the instructor may post a general feedback message to the class about a topic. The instructor will also host weekly online office hours where students can talk one on one either with any questions or concerns they have. Instructors can also provide recorded info sessions for projects. Students receive feedback on individual and group assignments as well as through group critiques that happen asynchronously

1b. Student - Student Interaction: Describe the nature and expected frequency of student-student interactions:

Students will communicate regularly with each other via the LMS, currently Canvas. For each module, students will interact in a threaded discussion for each assignment. Students will respond to a discussion topic and will then respond to each

other. Student-student interaction is designed to reinforce the course material and learning outcomes as well as to build a sense of community among learners. Students will be asked to collaborate and corroborate on assignments as well as participate in peer discussions and group critiques.

1c. Student - Content Interaction:
Students interact with course materials several times a week. Each module will have an overview, with all of the expectations, goals, and dates listed for that module. For each module, students will read any assigned material, watch the instructor's lecture and demonstration lecture notes, multimedia video lectures, Pages in LMS and web content. The instructor will provide a range of assignments and activities to address different learning styles. Other assignments may ask students to research a topic and report back to the class via discussion board or other method.

1d. Distance Ed Interactions:

Online class activities that promote class interaction and engagement	Brief Description	% of Online Course Hours
Discussion Boards	Students will post responses to topics and interact with peers and the faculty	20.00%
Project Presentation	Students will document their projects and post a written and audio/visual summary. This will be submitted as an assignment so students can garner instructor feedback before posting publicly on a discussion board.	35.00%
Exams	Quizzes will be administered to make sure basic concepts are understood.	10.00%
Online Lecture	Students will watch a video lecture on a pertinent course topic. They will be asked to take notes on the video in preparation for a discussion on this topic. Students are encouraged to post any questions they have about this topic on the "General Questions" discussion board so that the instructor can address them. Students can join in on the discussion.	35.00%

2. Organization of Content:
Content will be structured in a similar manner as ground delivery. Students will have access to lecture content and visual examples along with appropriate demonstrations of technique and assignment and projects. The course includes Information, Learning, and Communication/Collaboration features that coincide with student learning outcomes specified in the course outline. The course is divided into modules or units that coincide directly with those concepts and objectives described on the course outline. A typical instructional module includes (1) written assignment directions / multimedia references; (2) support materials; (3) instructional activities and practices; (4) discussion forum(s); (5) graded assignment(s); (6) other course-specific components as necessary. The material is presented through the available technologies. Assignment activities allow students to assess their performance and progress in each module at their own pace within the general deadlines provided. Class activities provide immediate feedback to ensure progressive involvement and successful completion of each module in the course. There will be opportunities for students to participate in synchronous office hours and live demos as well as recorded demonstrations. Canvas has robust tools including the creation of content pages where links to recorded zoom and YouTube videos can be placed along with text and images. Discussion boards will be utilized for students to show work in progress and give/get feedback from other students and instructors. The content is organized into modules. Modules are consistently structured and sequenced to allow students to better anticipate and manage their workload. A variety of modalities, such as text, audio, video, images and/or graphics, and 3D models are used to create student-centered learning. There will also be links provided on a regular basis that will bring to the attention of students current events that have relevance to the course.

3. Assessments:

% of grade	Activity	Assessment Method
40.00%	Using Equipment	Using an existing software file (Could be yous or someone else's) and move it from raster to vector and vice versa. For instance if your file is in Photoshop, move it to Illustrator or vice versa. You will first upload the original file and then upload the translation. Using the appropriate software, format it so that it is ready to be printed on fabric for the project, adjusting for size and scale as necessary. Upload the new file. Successfully, print the work on fabric and prepare it for view, Document the stages of the project with edited video or stills and a written explanation.
30.00%	Final Project	Develop a project that uses both fabric Printing and Embroidery printing. Documentation submitted and posted in discussion boards.
20.00%	Quizzes	Module Quizzes to ensure safety and proper tool use.
10.00%	Research	Discussion posts on assigned research topics.

4. Instructor's Technical Qualifications:
Faculty will need to be experts on the maker equipment and comfortable demonstrating via live streaming technologies like zoom. They will know how to use the current LMS and should have received training for teaching online if they have not already demonstrated this proficiency. For example, an instructor could take the @One training courses, as well as attend workshops at SMC, consult with other faculty, and participate in distance education activities offered, such as the peer review of course shells. The instructor should have a good working knowledge of the Canvas LMS, as well as proficiency in disseminating information digitally, such as lecture videos, Digital Presentations, audio files, etc.

5. Student Support Services:
Students will need to be able to come to SMC to use equipment or find other local sources for maker equipment. This is becoming more available as public institutions like libraries and community centers are increasingly having make equipment available tot he public. The other students support services are all set for online studio courses.

6. Accessibility Requirements:
All video content will be closed captioned and Canvas has many built in features like Alt text for images to ensure accessibility. Text documents will be uploaded as word docs and use style formatting that allows for clear interpretation by screen reading software. When courses are evaluated, we go through a rigorous accessibility compliance check with our department Accessibility representative Christopher Badger.

7. Representative Online Lesson or Activity:
CO- Distinguish the advantages and Disadvantages of the various Digital Fabric Tools output processes.
Assignment- Using an existing software file (Could be yous or someone else's) and move it from raster to vector or vice versa. For instance if your file is in Photoshop, move it to Illustrator or vice versa. Using the new software, format it so that it is ready to be Fabric printed, adjusting for size and scale as necessary. Successfully, fabric print the work and prepare it for view.
Step 1- Submit an image (Screenshot) of your original file in the discussion board to get feedback and evaluation and determine if it is a good fit for Fabric Printing
Step 2- Translate the file from photoshop to PES or vector file and submit it to the assignment
Step 3- Format the file for use by a machine available at SMC
Step 4- document the process of printing or embroidering, noting any challenges and submit a link to the video file or PDF.
Step 5- post your finished project in the threaded discussion to get feedback and insights from your peers. Make sure to reply to another's post on what you learned from their selected project

New Course: BIOLOGY 30, Fundamentals of Biotechnology 1

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
Degree Applicability:	Credit – Degree Applicable
Proposed Start:	Fall 2023
TOP/SAM Code:	043000 - Biotechnology and Biomedical Technology / C - Clearly Occupational
Grading:	Letter Grade or P/NP
Repeatability:	No
Library:	
Minimum Qualification:	Biological Sciences, Biotechnology
Program Impact:	Proposed for inclusion in a forthcoming degree or certificate • Biotechnology

Rationale
This course is one of four core courses in the new proposed Biotechnology Program leading to stacked certificates and Associate degree. The program will train students to work as technicians in higher wage jobs in the rapidly growing biotechnology industry around Santa Monica and the greater Los Angeles area. The program is currently funded by the Los Angeles Regional Strong Workforce Program and will be supported by other sources.

I. **Catalog Description**
This course will introduce students to the broad spectrum of the biotechnology field and workforce, with content that will be accessible and appropriate to students and professionals from diverse disciplines. This course is designed to prepare students to enter the growing biotechnology workforce or to transfer. Students that complete this course will be eligible to take the Los Angeles Regional Bioscience/Biotechnology Industry-Valued Credential. Topics explored in this course include basic molecular and cellular biology, introductory genetics, biomanufacturing, microbiology, agriculture & bioremediation, chemistry, environmental health & safety, quality assurance & regulation, business, ethics, and biotechnology company structure. These concepts are explored by means of class discussions and projects, reading assignments, and lab activities. The course is intended as preparation for the intermediate and advanced biotechnology skills and methods courses as well as internships. By the end of the course, students should be able to describe the general structure and operating practices for a biotechnology company, demonstrate knowledge of fundamental biotechnology concepts in a molecular biology context, and express understanding of biotechnology applications and ethical practices.

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 Biotechnology, 4th, Thieman, William J, Pearson © 2019
2. Biotechnology Foundations, 2nd, O'Grady, J., OpenStax © 2020

III. **Course Objectives**
Upon completion of this course, the student will be able to:
1. Describe the scientific method; biological organization & introductory chemistry; foundational concepts in cellular and molecular biology; biotechnology industry structure, applications, & relevant methods; and biotechnology legal and ethical practices
2. Perform state-of-the-art biotechnology techniques, properly use advanced instrumentation, and be prepared to communicate with industry professionals who are experts in their fields.
3. Write a standard operating procedure; keep an industry standard notebook; and explain and demonstrate the procedures and application of the scientific method to design a small-scale experiment.
4. Think critically about scientific data and ethical practices in biotechnology as well as utilize metacognitive processes and executive function strategies to improve the retention of foundational concepts and transferable skills used in the workplace.

IV. **Methods of Presentation:**
Lecture and Discussion, Lab, Observation and Demonstration, Discussion, Projects, Experiments, Field Trips, Visiting Lecturers, Group Work, Other Methods: The primary means of instruction are lecture presentation and laboratory experience. Digital media are used in moderation to present materials, which may be more adequately treated by these methods. Slides, computer presentations, and other web-based instructional technologies may be used to illustrate the lectures and to clarify laboratory exercises. Demonstrations, models, and microorganisms are used when available and appropriate. Students are provided with a variety of extracurricular activities, which may be assigned, optional, or extra credit. These include industry tours, web/internet searches, and exercises in quality control and regulation. Hands-on activities are stressed in the laboratories. Many exercises are designed to provide experience with scientific methodology and soft-skills development, in addition to teaching the biotechnology concepts involved. Discussions and a cooperative learning environment are required in the laboratory.

V. **Course Content**

% of Course	Topic
2.500%	Overview and History of Biotechnology & the Modern-Day Workforce • Project Management & Workflow
4.500%	Biological hierarchy & the Process of Science • Characterization of life • Introduction to the scientific method & ethical conduct
4.500%	Introduction to Inorganic and Organic Chemistry • Atomic structure • Chemical bonding • Acid-base chemistry • Biomolecules & their properties
7.000%	Structure & Function of Cells • Prokaryotic & eukaryotic cellular structures • Membrane function o Cellular trafficking o Osmosis & diffusion • Cell signaling & communication
4.500%	Energy Processing • Introduction to metabolism • Cellular respiration • Fermentation • Photosynthesis
7.000%	Cellular Reproduction • Mitosis & asexual reproduction • Cell cycle control & cancer • Meiosis and sexual reproduction
7.000%	Introduction to DNA Structure & Function • DNA replication, mutation, & repair • Gene expression o Transcription o Translation • Epigenetics
2.500%	Mendelian Genetics • Autosomal genes • X-linked genes • Polygenic inheritance
2.500%	Evolution • Introduction to natural selection & population genetics • Microevolution at the population level o Organismal o Cellular (e.g., context of cancer) o Viral

11.000%	Biotechnology Tools for Molecular & Cell Biology • Introduction to recombinant DNA Technology • Introduction to Protein production & purification • DNA sequencing • Stem Cells
18.500%	Biotechnology Applications • Pharmaceutical • Agricultural • Microbial • Animal • Medical • Aquatic • Forensics • Bioremediation
24.000%	Executive Function and its Importance for the Workforce • Organization & time management • Goal setting & prioritizing tasks • Workflow management tools Metacognitive Strategies & Applications for Knowledge and Skill Acquisition in the Workplace • Metacognitive cycle • Notetaking strategies • Metacognitive approaches for micro-credential and certification assessments • Problem-solving and troubleshooting Soft Skill Acquisition and Transferable Skills Development • Database usage and literature research • Office suite strategies • Teamwork & leadership skills • Verbal & written communication skills
4.500%	Biotechnology Regulations • Legal • Ethical concerns • Regulations & introduction to quality control
100.000%	Total

VI. **Methods of Evaluation**

% of Course	**Topic**
3%	Class Participation
36%	Exams/Tests: Midterm exams (4 total)
10%	Quizzes: Lab Quizzes (weekly)
7%	Written assignments: one assignment
5%	Other: Lab notebook evaluation
9%	Homework
13%	Lab Reports: These are lab summary assignments and not a formal lab report reflecting a published manuscript
5%	Oral Presentation
12%	Final exam
100%	Total

VII. **Sample Assignments:**
Writing Assignment: Biotechnology in the News - 30 points Instructions: Look for an article in a newspaper, a magazine, or online (Popular science, Scientific American, Los Angeles Times, etc.) that discusses the application of a biotechnology tool that solves a problem that relates to one of the 8 biotechnology applications discussed this

semester. Find a second article that provides a summary about the general use or mechanism action of the biotechnology tool described in the news article. Complete the following cover sheet and TYPE a 2.5 — 3-page report about the biotechnology tool and the article. When writing about the tool, include information on how it was discovered, its general mechanism of action, and the current application to solve the type of problem discussed in the article. When summarizing and critiquing the article, please include the following information: • Provide the title of the work being reviewed, the date it was created, and the name of the author/creator. • Identify the purpose of the article and summarize the main points of the article. • Evaluate how effective the journalist was at conveying the main points and how well they informed the reader of the biotechnology tool. Discuss the journalist's organization of writing, audience appropriateness, and the major strengths and weaknesses of the article. Provide examples from the article to support your claims. • Based on the authors credentials, decide if he/she is qualified to write on the subject. If the author is biased and/or there is a conflict of interest, discuss this. The document should be double-spaced, 12-point Times Roman font, and 1-inch margins. Include a works cited section using APA format. Attach the news article with your write-up.

Pipetting Exercise: Pipetting Techniques Lab Proficiencies in measuring extremely small quantities (microliters, µl) of chemical reagents with high accuracy and precision is a fundamental and an essential skill in many biotechnology labs. This lab exercise introduces the technique of micropipetting. Part I You will be given four different pipets – P-10, P-20, P-200, P-1000 that are designed to transfer defined volumes of solutions. Based on the volumes asked to pipette, you will need to choose the right pipet to transfer a desired volume of solution. Before beginning, review the Do's and Don'ts for using a micropipette DO… 1. double check the volume setting 2. always attach a clean disposable tip 3. always change a new tip after dispensing 4. push down or release the plunger slowly 5. ask how to use if unsure! DON'T… 1. adjust the volume beyond the minimum or maximum volume 2. use it without a tip 3. hold it sideways or upside down when there is liquid in the tip 4. let go of the plunger quickly 5. push the plunger beyond the first stop Procedure 1. Copy the table below and calculate the expected total volumes for tubes #1 through #3 and write the values in the table. 2. Obtain four microcentrifuge tubes and label them as tubes #1 through #4 3. For tube #1, set the volume for the largest volume on your micropipette and attach a clean tip onto it 4. Slowly push the plunger down to the 1st stop, lower the tip into the test tube containing solution A at a slight angle, and slowly release the plunger to draw up the liquid (If you see bubbles in the tips, this means you went too fast!) 5. Lower the micropipette's tip so it touches the inner wall of tube #1 and slowly push down on the plunger to dispense the liquid (DO NOT release the plunger yet) 6. Push the plunger to its 2nd stop to expel any remaining liquid in the tip (Eject the tip) 7. Repeat the above steps for the remaining solutions based on the volumes (largest to smallest) indicated in the table. 8. Do the same for tubes #2 through #4 according to the table Part II In this exercise you will continue to develop your pipetting accuracy by creating a colorful design using colored water and a 96-well plate. You will determine the weight of your 96-well plate before adding the colored water and calculate the estimated weight based on the number of wells that will be filled with the colored water. Once you have completed your design, you will weigh your 96-well plate to determine how accurate your pipetting skills are. Procedure: 1. Obtain a 96-well microplate, a design card, and tubes of colored water. 2. Write the Microplate Art Design number in your lab notebook. 3. Using the gram balance, obtain the weight of your 96 well microplate and record in your notebook. 4. Using the p200 micropipette with tip, dispense 50 µl of dye into the wells written on the design card. 5. Once you have finished pipetting, weigh your completed microplate, and record in your lab notebook. Be sure to record your weight in grams of your microplate pre/post pipetting in your lab notebook. 6. Using these values, calculate your percent error of the microplate you just created. Include the calculation in your lab notebook. 7. Take a picture of your microplate design and include this in your lab notebook. CONCLUSION 1. Was your percent error below +/- 5%? If your percent error was above this range, elaborate on the potential causes. 2. Did your pattern look correct? How could you avoid errors in the future? Ref: Sourced from ASCCC Open Educational Resources Initiative and the Santa Ana College BIO 211 Lab Manual

VIII. **Student Learning Outcomes:**

1. Recall and define vocabulary words used to explain foundational biological processes and the scientific method.
2. Describe key differences between inorganic and organic biological molecules; explain the major differences amongst prokaryotic and eukaryotic cells; discuss principles of metabolic events; describe the connection between molecular biology and hereditary events to the broader principles of evolution.
3. Demonstrate knowledge of a variety of biotechnology applications, industries, and the organization of a biotechnology company; distinguish between ethical and non-ethical practices; and execute laboratory protocols and safety instructions.
4. Organize scientific data into industry standard documents and laboratory notebooks; select, create, and interpret the appropriate data tables and figure to represent scientific data; communicate and critique scientific information; interpret and follow a standard operating procedure; and apply metacognitive and executive function strategies to acquire new knowledge and troubleshoot workflow and data collection issues.

BIOL 30 Distance Education Application

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

1a. Instructor - Student Interaction:

The instructor will send out a welcome letter two weeks and two days before beginning of the semester with a detailed syllabus attached. During the first week, an orientation will be scheduled during the first few days of week 1 and the video session will be recorded and posted on the course LMS such as Canvas the same day. At least one announcement will be posted each week listing all upcoming assignments and other important events for the following week. Announcements will also be posted when biotech-related opportunities are available that may be of interest to students. Discussion Board: the discussion board is divided into several subheadings: general course-related questions and comments, lecture questions/comments, lab questions/comments, term paper questions, and others. Discussions for lectures are required and graded with detailed rubrics (~10% of final grade). Students are required to post discussion threads on both course content and interaction with other students. Students are encouraged to post all general questions on Discussion Board. Virtual Office hour via LMS such as SMC Zoom: Weekly office hours will be scheduled for drop-in Q/As. Email via LMS such as Canvas Inbox for personal issues. Chat room/breakout room/Pronto: for group discussion/study group or quick messages. Calendar and To-Do List as additional reminder of upcoming assignments. Speedgrader. Real-time feedback for online submissions of various assignments. Students are also allowed to respond to instructor's comments.

1b. Student - Student Interaction:

Communication among students will be highly encouraged to communicate with their peers online via the LMS (e.g., Canvas Discussion Board, Chatroom, SMC Zoom, Inbox, Pronto), and other public messenger platforms. My Story Page: students will start the semester by submitting a short ice-breaker bio about their career aspirations, hobbies, cultural background etc. Publication of the bio is voluntary. Students are required to participate in the asynchronous Discussion Board by posting and responding to at least one opinion-based, focused discussion thread each week on the learning module of the week. Additional general student discussion boards encourage students to interact with one another outside the framework of the course material. In the student discussion area, participants can share course material, create study groups, help each other, and exchange contact information.

1c. Student - Content Interaction:

Textbooks: Textbooks/reading assignments will be made available on the course LMS whenever possible. Students will read assigned chapters related to each learning module (at least two chapters per week). Labs: The Bio 30 lab manual will be made available via the college's LMS. The manual will include general concepts/background, online lab experiments, worksheets, and lab-related questions. The lab manual will also include information and questions relating to industry requirements if applicable for their preparation to take certification assessments. All material and assignments, close-captioned recorded lectures, including lecture slides, articles, videos, lab assignments will be available to students via the college's LMS such as Canvas.

1d. Distance Ed Interactions:

Online class activities that promote class interaction and engagement	Brief Description	% of Online Course Hours
Online Lecture	Close-captioned recording PowerPoint lectures with audio and transcripts. Alternative versions of the material will be provided e.g., slides with Notespage.	57.00%
Other (describe)	Supplemental Online Labs: Industry approved and curated online labs modules and activities used for digital badge micro-credential training will be used.	11.00%
Videos	Links to a variety of videos/animations will be embedded within the audio-narrated PowerPoint lectures or posted separately in 3M Media or Studio. A video will be provided in the introductory module to welcome the students to the class. All videos will be closed-captioned.	3.00%
Discussion Boards	Two discussions boards will be assigned to each module. One will pose a general question relating to biotechnology and the other will be specific to the material contained in the module. The discussions boards will provide ample opportunity for student-student and student-instructor interaction.	10.00%
Exams	There will be four mid-term exams, one final exam, and weekly lab quizzes.	7.00%
Written assignments	Term paper and lab notebook evaluation	10.00%
Project Presentation	Oral presentation	2.00%

2. Organization of Content:

Organization of content does not deviate from the on-ground version of this course. Delivery of content will be using online platforms (e.g. Learning Management System - Canvas) and resources.

3. Assessments:

% of grade	Activity	Assessment Method
3.00%	Participation	Engagement in class discussions by answering responses through online surveys or digital discussion platforms
36.00%	Exams/Tests - Midterm exams	Written and multiple choice exams will be given that cover foundational biology and biotechnology concepts
10.00%	Lab quizzes	Quizzes that cover a smaller percent of the material but used to review concepts will be given.
7.00%	Writing Assignment	Writing assignments will ask students to show how different scientific concepts and themes interconnect.
5.00%	Lab Notebook Evaluation	Lab notebook evaluation will be based on industry compliance standards covered in the course.
9.00%	Homework	Assignments will cover key concepts presented in weekly lectures and assess understanding, application, and synthesis of the material
13.00%	Lab Summary Assignments	Lab summary assignments will provide opportunities for reflection on concepts and hands-on activities covered during the laboratory period.
5.00%	Data Oral Presentation	The data oral presentation assignment will assess knowledge of interpreting scientific data and communicating the information in an oral modality
12.00%	Final Exam	The final exam will cover topics presented throughout the semester related to technical and soft skill acquisition.

4. Instructor's Technical Qualifications:

Instructor’s qualifications: Certificate in Online Course Design recommended; ability to use college-provided LMS and video conferencing software (ex: Zoom; Canvas); 3CMedia; ability to produce, upload, and caption videos; ability to utilize college and industry-provided virtual labs. Instructors are knowledgeable and competent in principles and best practices in DEIA curriculum recommendations.

5. Student Support Services:

For optimal learning, students should be able to access: Center for Wellness and Well-being Counselors Financial Aid Bookstore Library Santa Monica College Student Support and Online Services: https://www.smc.edu/student-support/ssc/index.php Instructor will provide additional specific links/contact information based on individual student needs. In the Orientation Module: The orientation module will have a separate page devoted to tutoring including how to access the tutoring services, how to set up an account, and how to make appointments. On other pages there will be directions and links to the Student Services Center. Links to special programs including Black Collegians Program, Center for Students with Disabilities, EOPS (Extended Opportunity Programs and Services), ESL, Center for Wellness and Wellbeing Psychological Services, Suicide Prevention and Postvention and Learning Disabilities Program. Links to LMS (ex: Canvas) help resources, counseling, financial aid, and bookstore.

6. Accessibility Requirements:

Online lectures, labs, and assignments will be in compliance with Section 508 of the Rehabilitation act and Universal Design Learning of CAST in consultation with district online course design experts. These include but are not limited to features such as closed-captioning, audio and accurate transcriptions, alternative text, appropriate formatting/color contrast, headings for data tables, skip navigation. Whenever possible, links to additional materials that are likewise accessible will be chosen; when that is not possible, appropriate alternative accommodations will be made by the instructor.

7. Representative Online Lesson or Activity:

A variety of self-paced industry-standard online lab exercises are available free of charge through the Bioscience Core Skill Institute that can be used to enhance the knowledge and skills acquisition of the BIOL 30 lab content. Two self-paced module examples are:

SAFETY: HAZARD ASSESSMENT: Utilize information on an MSDS sheet. List safety steps needed to work in a particular lab environment. Lab exercise: Describe safety hazards when viewing a lab bench.

NUMERACY: Estimation of volumes and sizes, and unit conversions. Recognize reasonableness of numbers in laboratory calculation results. Convert units within the metric system. Order numbers based on size. Write and record numbers accurately.p