

# MULTIMEDIA ARTS Core

## Multimedia Arts Core

### Certificate of Achievement

The Multimedia Arts Core Certificate of Achievement offers a foundation of multimedia techniques and theory and prepares students for further coursework and specialization in the strand of their choice.

#### Career Opportunities

Entry level positions in video production, web design, digital imaging, animation and game design, corporate and independent media organization.

Required courses:	Units
MM/AN 40A Introduction to Game Design	3
MM/MW 1A+1LA Introduction to Web Design+ Lab3	
MM/VI 9A Video Production I: Introduction to Video	4
MMART 3 Introduction to Digital Art	3

Select 6–7 units from the following:

MM/DI 3+3L Contemporary Color+Lab	3
MM/DI 4+4 Introduction to Photoshop+Lab	3
MM/MW 2+2L Fundamentals of Graphic Visualization+Lab	3
MM/MW 4A+4LA Social Media Marketing and Data Analytics+Lab	3
MMART 1 Design Thinking	3
MMART 110 Scriptwriting and Storyboarding	3
MMART 197 Multimedia Career Preparation	3

MMART 468 Occupational Work Experience in Multimedia Arts 1–4  
Total Units: 19–20

### Recommended One-Year Course Sequence

Students can use the following pattern to complete a Certificate of Achievement in Multimedia Arts Core. This is only one possible pattern. If they wish to earn a certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a Counselor. This plan will map their sequence of courses to help them complete their degree regardless of the semester they begin classes.

Courses	Units
<b>1st Semester/Fall</b>	
MMART 3 Introduction to Digital Art	3
MM/VI 9A Video Production I: Introduction to Video	4
Elective	3
<b>Total</b>	<b>10</b>
<b>2nd Semester/Spring</b>	
MM/AN 40A Introduction to Game Design	3
MM/MW 1A+1LA Introduction to Web Design and Lab	3
Elective	3
<b>Total</b>	<b>9</b>

#### Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate entry level skills in multimedia arts through the completion of individual and team projects.
- Collaborate within a diverse team environment.

### MMART 1, Design Thinking

3 Units

2.5 hours lecture, 1.5 hours lab (GR or P/INP)

Acceptable for credit: CSU

Design thinking: Building a design research process; problem solving, building prototypes, and creating viable design solutions using ethnography, visualization, storytelling, and experimentation. Not open for credit to students who have completed MMART 199.

0614.00

### MMART 3, Introduction to Digital Art

3 Units

2.5 hours lecture, 1.5 hours lab (GR or P/INP)

Acceptable for credit: CSU

Introduction to Digital Art: Fundamental concepts, practices, and theories of digital art production, integration of traditional design, color, and compositional principles with contemporary digital tools such as scanned resources, vector drawing, bitmap painting, and rendering from 3D models. Not open for credit to students who have completed MMART 130.

0614.40

2017–19 Catalog #	Course name	Update/New	2019–20 Catalog#	Course Name
		new	MMART 1	Design Thinking
MMART 110	Scriptwriting and Storyboarding I	update	MMART 110	Scriptwriting & Storyboarding
MMART 130/130L	Introduction to Digital Art / Lab	update	MMART 3	Introduction to Digital Art
MMART 152A/152LA	Motion Graphics / After Effects I / Lab	update	MMART 5A	Introduction to Motion Graphics
MMART 152B/152LB	Motion Graphics / After Effects II / Lab	update	MMART 5B	Intermediate Motion Graphics
MMART 048UA-ZZ	Selected Topics in Multimedia Arts	update	MMART 48UA-ZZ	Selected Topics in Multimedia Arts
MMART 49	Independent Study in Multimedia Arts	update	MMART 49	Independent Study in Multimedia Arts
MMART 122B	From Movies to Multimedia	update	MMART 122B	From Movies to Multimedia
MMART 123	The Documentary Tradition	update	MMART 123	The Art of Documentary Film
MMART 197/197L	Multimedia Portfolio/Sample Reel Development / Lab	update	MMART 197	Multimedia Career Preparation
COPED 468B	Occupational Work Experience in Multimedia Arts	update	MMART 468	Occupational Work Experience in Multimedia Arts

### MMART 5A, Introduction to Motion Graphics

3 Units

2.5 hours lecture, 1.5 hours lab (GR or P/INP)

Recommended Preparation: MMART 110

Acceptable for credit: CSU

Introduction to motion graphics and 2D animation for the current industry standards: Importing source files including photographs, illustrations, video clips and 3D animation; compositing source imagery, keyframing, animating, and effects; compression and outputting for video and web; critical discussion and assessment of work on technical, aesthetic, conceptual, and philosophical level. Not open for credit to students who have completed MMART 152A. 0614.10

### MMART 005B, Intermediate Motion Graphics

3 Units

2.5 hours lecture, 1.5 hours lab (GR or P/INP)

Recommended Preparation: MMART 152A

Acceptable for credit: CSU

Intermediate motion graphics and 2D animation for the current industry standards: Compositing source imagery, keyframing, animating, and effects; compression and outputting for video and web; critical discussion and assessment of work on technical, aesthetic, conceptual, and philosophical levels. Not open for credit to students who have completed MMART 152B. 0614.10

### MMART 110, Scriptwriting and Storyboarding

3 Units

3 hours lecture (GR or P/INP)

Acceptable for credit: CSU

Introduction to storytelling as an art: Pre-production planning for linear and interactive multimedia; development of treatments, scripts and storyboards; organization of drama through effective pacing and design. 0614.00

### MMART 122B, From Movies to Multimedia

3 Units

3 hours lecture (GR or P/INP)

Acceptable for credit: UC/CSU

AA/AS area 3; CSU area C1; IGETC area 3A  
Analysis of film, animation, video, and other time-based multimedia art forms: Elements of linear and interactive structures; history, aesthetics, and cultural significance of the various forms; impact of digital technologies on production and reception of motion pictures; practices of analysis, interpretation, and criticism. 0612.20

### MMART 123, The Art of Documentary Film

3 Units

3 hours lecture (GR or P/INP)

Acceptable for credit: UC/CSU

AA/AS area 3; CSU area C1; IGETC area 3A

History and analysis of documentary film: Critical and historical approaches to non-fiction film form and content; objectivity and point of view; aesthetics and ethics and the evolving impacts of documentary films on American politics and new technology on the genre. 0612.20

### MMART 154, Video Production Fundamentals

1.5 Units

1.5 hours lecture (GR or P/INP)

Acceptable for credit: CSU

AA/AS area 4c

Introduction to project planning and video production basics: Pre-production, local resources, on-set etiquette, camera operation, lighting, sound recording, preparation for post-production. 0612.20

### MMART 197, Multimedia Career Preparation

3 Units

2.5 hrs lecture, 1.5 hrs lab (GR or P/INP).

Recommended Preparation: MMART 164

Acceptable for credit: CSU

AA/AS area 4c

Career preparation for advanced multimedia students: Resume, interview skills, job searches, networking techniques, professional websites and portfolios or reels. 0614.10

### MMART 198, Multimedia Project Management

3 Units

3 hours lecture (GR or P/INP)

Recommended preparation: ART 41, MMART 130/130L and 200

Acceptable for credit: CSU

AA/AS area 4c

Theory and practices for multimedia project management: Applying time management, creativity, problem-solving, and decision-making skills, both in individual and team-based interactions, to manage assets, plan schedules, control costs, ensure quality, deliver the media, and communicate with clients, using real-world templates, examples, case studies, and contracts. 0614.00

### MMART 468, Occupational Work Experience in Multimedia

1-4 Units

3.43-17.15 hours lab (GR or P/INP)

Supervised employment in Multimedia Arts or a related field: Extension of classroom learning to the job site. The employment must be related to the student's educational or occupational goals. Each 75 hours of paid work equals one unit, while each 60 hours of non-paid work equals one unit. Students can earn at most 16 units through general and occupational work experience courses combined, but may re-enroll in such courses any number of times until the maximum of 16 units is earned. 0614.10

### MMART 505A, Introduction to Motion Graphics

0 Units

2.5 hours lecture, 1.5 hours lab (P/INP or SP)

Introduction to motion graphics and 2D animation for the current industry standards: Importing source files including photographs, illustrations, video clips and 3D animation; compositing source imagery, keyframing, animating, and effects; compression and outputting for video and web; critical discussion and assessment of work on technical, aesthetic, conceptual, and philosophical level. 0614.60

# MULTIMEDIA ARTS

## Animation and Game Design

### Associate in Arts Degree

Berkeley City College's A.A. degree in Animation and Game Design prepares students for entry-level jobs in the game and animation fields and provides upgraded skills for those already employed in multimedia and game jobs. The program is interdisciplinary and focuses on developing artistic, animation, critical thinking and computer skills.

#### Career Opportunities

Medical visualization, game, pre-visualization, game level design, 3D modeling, technical direction, 2D animation, 3D animation, computer graphics special effects, layout design, look development, character/prop/background design, scene planning/compositing, production, environmental/set design, and visual simulation.

#### Required Core Courses for all Multimedia

A.A. degrees:	Units
MMART 3 Introduction to Digital Art	3
MM/AN 40A Introduction to Game Design	3
MMMMW 1A+1LA Introduction to Web Design + Lab	3
MM/VI 9A Video Production I: Introduction to Video	4

#### Core Electives. Select 6-7 units.

Course	Units
MMART 1 Design Thinking	3
MMART 110 Scriptwriting and Storyboarding	3
MMART 197 Multimedia Career Preparation	3
MMART 468 Occupational Work Experience in Multimedia Arts	1-4
MM/DI 3+3L Contemporary Color+Lab	3
MM/DI 4+4L Introduction to Photoshop+Lab	3
MM/MW 2+2L Fundamentals of Graphic Visualization+Lab	3
MMMMW 4A+4LA Social Media Marketing and Data Analytics+Lab	3

2017-19 Catalog #	Course Name	Update/New	2019-20 Catalog #	Course Name
MMART 178/178L	Drawing for Animation / Lab	update	MM/AN 1A	Drawing for Animation
MMART 116	Storytelling in Animation	update	MM/AN 1B	Storytelling in Animation
		new	MM/AN 2	History of Animation
MMART 177/177L	Introduction to Animation Principles / Lab	update	MM/AN 3A	Introduction to 2D Animation
MMART 187/187L	Animation Practices I / Lab	update	MM/AN 3B	Intermediate 2D Animation
MMART 186/186L	Introduction to 2D Digital Animation / Lab	update	MM/AN 4	2D Digital Animation
MMART 181/181L	Experimental Animation / Lab	update	MM/AN 10	Experimental Animation
		new	MM/AN 19	Character and creature design
MMART 188	Introduction to 3D Animation I	update	MM/AN 20A	Introduction to 3D Animation
MMART 189	Introduction to 3D Character Animation	update	MM/AN 20B	3D Character Animation
MMART 191	3D Modeling for Animation & Game Design	update	MM/AN 21A	Introduction to 3D Modeling
		new	MM/AN 21B	Intermediate 3D Modeling
MMART 179	Animation Layout and Visual Development	update	MM/AN 22A	3D Layout and Lighting
MMART 180/180L	Animation Special Effects / Lab	update	MM/AN 22B	Special Effects for Animation
MMART 192	3D Rigging for Animation and Game Design	update	MM/AN 23	3D Rigging
		new	MM/AN 24	Performance Animation
MMART 194	2D/3D Animation Production	update	MM/AN 25	Animation Production
MMART 175B	Game Design	update	MM/AN 40A	Introduction to Game Design
MMART 193	Game Design Level Development	update	MM/AN 40B	Game Level Design
MMART 182	Scripting and Programming for Computer Graphics	update	MM/AN 41A	Introduction to Game Scripting
MMART 152C/152LC	Motion Graphics / After Effects III / Lab replacement	replaced	MM/AN 41B	Video Game Development
		new	MM/AN 44	Applications of Virtual and Augmented Reality
		new	MM/AN 50	Career Preparation for Animation and Game Industries
		new	MM/AN 55A and 55B	Animation and Game Studio Practice

## Associate Degree & Certificate Programs/Course Announcements & Descriptions

**Required Courses for Animation+Game Design:**

Course	Units
MM/AN 1A Drawing for Animation	3
MM/AN 3A Introduction to 2D Animation	3
MM/AN 20A Introduction to 3D Animation	3
MM/AN 21A Introduction to 3D Modeling	3

**Animation Electives. Select 9 units from the following:**

Course	Units
ART 30 Beginning Figure Drawing: Anatomy	2
MMART 5A Introduction to Motion Graphics	3
MM/AN 2 History of Animation	3
MM/AN 3B Intermediate 2D Animation	3
MM/AN 4 2D Digital Animation	3
MM/AN 41A Introduction to Game Scripting	3
MM/AN 55A Animation and Game Studio Practice	1
MM/AN 55B Animation and Game Studio Practice	1
MM/DI 4+4L Introduction to Photoshop+ Lab	3
Major Requirements	40–41
General Education and Electives	19–20
Credit Hours: (0 Required)	
<b>Total:</b>	<b>60</b>

### Recommended Two-Year Course Sequence Beginning in Fall Semester

Students can use the following pattern to complete an Associate in Arts degree in Multimedia Arts—Animation and Game Design. This is only one possible pattern. If they wish to earn an associate degree, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a Counselor. This plan will map their sequence of courses to help them complete their degree regardless of the semester they begin classes.

Course	Units
<b>1st semester/Fall</b>	
MMART 3 Introduction to Digital Art	3
MM/AN 1A Drawing for Animation	3
MM/VI 9A Video Production: Introduction to Video	4
Core Elective	3
General Education/Electives	3
<b>Total</b>	<b>16</b>
<b>2nd Semester/Spring</b>	
MM/AN 3A Introduction to 2D Animation	3
MM/AN 40A Introduction to Game Design	3
Core Elective	3
General Education/Elective	5
<b>Total</b>	<b>14</b>
<b>3rd Semester/Fall</b>	
MM/AN 20A Introduction to 3D Animation	3
Animation Elective	6
General Education/Elective	6
<b>Total</b>	<b>15</b>
<b>4th Semester/Spring</b>	
MM/AN 21A Introduction to 3D Modeling	3

Course	Units
MM/MW 1A+LA Introduction to Web Design	3
Animation Elective	3
General Education/Elective	6
<b>Total</b>	<b>15</b>

#### Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate entry-level skills in animation through completed portfolio level projects in both visual and written context related to Animation and Game Design.
- Describe, plan and evaluate design principles, aesthetic forms, historical context and social relevance of multimedia works.
- Collaborate effectively within a diverse team environment.

### Animation Level I Certificate of Achievement

The Multimedia Arts Certificates of Achievement in Animation are available at Level I and Level II. The Animation Certificates of Achievement are a comprehensive study of 2D and 3D animation techniques, allowing students to choose from a range of 2D and 3D courses in order to prepare for an entry level position in the industry.

#### Career Opportunities

Entry level positions in various fields of Animation, Game, Medical Visualization and Simulation as Animators, 3D modelers and pre-visualization artists and preparation for transfer to a 4 year institution.

**Required Courses**

Course	Units
MM/AN 3A Introduction to 2D Animation	3
MM/AN 20A Introduction to 3D Animation	3
MM/AN 50 Career Preparation for Animation and Game Industries	3

**Select 9–11 units from below:**

Course	Units
MMART 5A Introduction to Motion Graphics	3
MM/AN 1A Drawing for Animation	3
MM/AN 1B Storytelling in Animation	3
MM/AN 2 History of Animation	3
MM/AN 3B Intermediate 2D Animation	3
MM/AN 4 2D Digital Animation	3
MM/AN 10 Experimental Animation	3
MM/AN 21A Introduction to 3D Modeling	3
MM/AN 55A Animation and Game Studio Practice	1
MM/AN 55B Animation and Game Studio Practice	1
<b>Total:</b>	<b>18–20</b>

### Recommended One-Year Course Sequence Beginning in the Fall Semester

Students can use the following pattern to complete a Certificate of Achievement in

Multimedia Arts Core. This is only one possible pattern. If they wish to earn a certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a Counselor. This plan will map their sequence of courses to help them complete their degree regardless of the semester they begin classes.

**Course**

Course	Units
<b>1st Semester/Fall</b>	
MM/AN 3A Introduction to 2D Animation	3
MM/AN 20A Introduction to 3D Animation	3
Animation Elective	3
<b>Total</b>	<b>9</b>
<b>2nd Semester/Spring</b>	
MM/AN 50 Career Preparation for Animation and Game Industries	3
Animation Elective	6
<b>Total</b>	<b>9</b>

#### Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate entry level skills in Animation through the completion of individual and team projects.
- Describe, plan and evaluate design principles, aesthetic forms and historical context of Animated works.
- Create complete projects utilizing 2D/3D techniques.

### Animation Level II Certificate of Achievement

The Multimedia Arts Certificates of Achievement in Animation are available at Level I and Level II. The Animation Certificates of Achievement are a comprehensive study of 2D and 3D animation techniques, allowing students to choose from a range of 2D and 3D courses in order to prepare for an entry level position in the industry.

#### Career Opportunities

Entry level positions in various fields of animation, game, medical visualization and simulation such as animation, concept arts, production assistance, 3D modeling, pre-visualization arts, 3D rigging, and computer graphics, as well as preparation for transfer to a 4 year institution.

**Required Courses**

Course	Units
MM/AN 3B Intermediate 2D Animation	3
MM/AN 20B 3D Character Animation	3
MM/AN 25 Animation Production	3

**Select 9 units from below:**

Course	Units
MM/AN 1B Storytelling in Animation	3
MM/AN 4 2D Digital Animation	3
MM/AN 10 Experimental Animation	3
MM/AN 21B Intermediate 3D Modeling	3
MM/AN 22A 3D Layout and Lighting	3



## Associate Degree & Certificate Programs/Course Announcements & Descriptions

MM/AN 22B	Special Effects for Animation	3
MM/AN 23	3D Rigging	3
MM/AN 24	Performance Animation	3
<b>Total:</b>		<b>18</b>

### Recommended One-Year Course Sequence Beginning in the Fall Semester

Students can use the following pattern to complete a Certificate of Achievement in Multimedia Arts Core. This is only one possible pattern. If they wish to earn a certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a Counselor. This plan will map their sequence of courses to help them complete their degree regardless of the semester they begin classes.

Course	Units
<b>1st Semester/Fall</b>	
MM/AN 3B Intermediate 2D Animation	3
MM/AN 20B 3D Character Animation	3
Animation Elective	3
<b>Total</b>	<b>9</b>
<b>2nd Semester/Spring</b>	
MM/AN 25 Animation Production	3
Animation Elective	6
<b>Total</b>	<b>9</b>

#### Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate entry level skills in Animation through the completion of individual and team projects.
- Analyze, document, plan and evaluate a budget for a short production.
- Collaborate within a diverse team environment.

### Game Design Level I Certificate of Achievement

The Multimedia Arts Certificates of Achievement in Game Design are available at Level I and Level II. Students who have little background in game design are encouraged to complete Level I prior to Level II. The Game Design Level I Certificate of Achievement provides introductory technical training in game design and programming techniques, allowing students to prepare for positions in the industry such as pre-visualization and game testing.

#### Career Opportunities

Pre-visualization, game testing, technical artist.

Required Courses	Units
MM/AN 21A Introduction to 3D Modeling	3
MM/AN 40A Introduction to Game Design	3
MM/AN 50 Career Preparation for Animation and Game Industries	3

Select 11–13 units from below:		Units
CIS 6	Introduction to Computer Programming	5
MM/AN 22A	3D Layout and Lighting	3
MM/AN 41A	Introduction to Game Scripting	3
MM/AN 55A	Animation and Game Studio Practice	1
MM/AN 55B	Animation and Game Studio Practice	1
<b>Total:</b>		<b>20–22</b>

### Recommended One-Year Course Sequence Beginning in the Fall Semester

Students can use the following pattern to complete a Certificate of Achievement in Multimedia Arts Game Design Level 1. This is only one possible pattern. If they wish to earn a certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a Counselor. This plan will map their sequence of courses to help them complete their degree regardless of the semester they begin classes.

Course	Units
<b>1st Semester/Fall</b>	
MM/AN 21A Introduction to 3D Modeling	3
MM/AN 40A Introduction to Game Design	3
Game Design Electives	3–5
<b>Total</b>	<b>9–14</b>
<b>2nd Semester/Spring</b>	
MM/AN 50 Career Preparation for Animation and Game Industries	3
Game Design Electives	8
<b>Total</b>	<b>11</b>

#### Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate entry level skills in Level Design through the completion of individual and team projects.
- Apply programming elements as they relate to computer graphics.
- Create an interactive game in either a 2D or 3D environment.

### Game Design Level II Certificate of Achievement

The Multimedia Arts Certificates of Achievement in Game Design are available at Level I and Level II. Students who have little background in game design are encouraged to complete Level I prior to Level II. The Game Design Level II Certificate of Achievement provides comprehensive technical training in game design, prototyping, and programming techniques, allowing students to prepare for entry level positions in various fields of game, medical visualization and simulation industries

as level designers, technical artists, and production assistants.

#### Career Opportunities

Entry level positions in various fields of Game, Medical Visualization and Simulation industries as level designers, technical artists, and production assistants.

Required Courses	Units
CIS 23 C# Programming	4
MM/AN 40B Game Level Design	3
MM/AN 41B Video Game Development	3
MM/AN 044 Applications of Virtual and Augmented Reality	3

Select 6–8 units from below:		Units
MM/AN 23	3D Rigging	3
MM/AN 21B	Intermediate 3D Modeling	3
MM/AN 50	Career Preparation for Animation and Game Industries	3
MM/AN 55A	Animation and Game Studio Practice	1
MM/AN 55B	Animation and Game Studio Practice	1
<b>Total:</b>		<b>19–21</b>

### Recommended One-Year Course Sequence Beginning in the Fall Semester

Students can use the following pattern to complete a Certificate of Achievement in Multimedia Arts Game Design Level II. This is only one possible pattern. If they wish to earn a certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a Counselor. This plan will map their sequence of courses to help them complete their degree regardless of the semester they begin classes.

Course	Units
<b>1st Semester/Fall</b>	
CIS 23 C# Programming	4
MM/AN 40B Introduction to Game Design	3
Game Design Elective	3
<b>Total</b>	<b>10</b>
<b>2nd Semester/Spring</b>	
MM/AN 41B Video Game Development	3
MM/AN 44 Applications of Virtual and Augmented Reality	3
Game Design Elective	3
<b>Total</b>	<b>9</b>

#### Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate entry level skills in game design through the completion of individual and team projects.
- Apply basic programming elements as they relate to computer graphics.
- Synthesize information from traditional and electronic sources into a game document and business report.

# Character Design and 3D Modeling

## Certificate of Proficiency

The Multimedia Certificate of Proficiency in Character Design and 3D Modeling establishes the backbone of a career in 3D modeling and asset creation for animation, game, and simulation.

### Career Opportunities

Character development, character modeling, 3D modeler, character and prop design, asset creation for game and simulation.

Required courses	Units
MM/AN 1B Storytelling in Animation	3
MM/AN 19 Character Design and Model Construction	3
MM/AN 21A Introduction to 3D Modeling	3
MM/AN 21B Intermediate 3D Modeling	3
<b>Total:</b>	<b>12</b>

### Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Critically evaluate advanced 3D modeling techniques and their effective use in 3D animation, game, and simulation presentations.
- Design a character based on a written description.

# Introduction to Animation and Game Design

## Certificate of Completion

The Certificate of Completion in Animation and Game Design prepares students with animation, modeling, and level design skills necessary for employment within the field of game design.

### Career Opportunities

Animation production houses, game production houses, webisode production companies, commercial visualization companies (legal, medical, industry) and post-production companies. Jobs could include: Junior 3D Modeler, Animator, Junior Game Level Designer.

Required Courses	Units
MM/AN 510 Introduction to 3D Modeling	0
MM/AN 511 3D Character Animation	0
MM/AN 512 Game Level Design	0
MM/AN 550 Animation and Game Studio Practice	0

## MM/AN 1A, Drawing for Animation

3 Units  
2.5 hours lecture, 1.5 hours lab (GR or P/INP)  
Acceptable for credit: CSU  
AA/AS area 4c  
Freehand drawing techniques in traditional animation: Gesture drawing, designing key poses, drawing figures in motion, capturing motion in fast sketches, analysis and development of motion paths. Not open for credit to students who have completed MMART 178. 0614.40

## MM/AN 1B, Storytelling in Animation

3 Units  
2.5 hours lecture, 1.5 hours lab (GR or P/INP)  
Acceptable for credit: CSU  
AA/AS area 4c  
Animated project design using storytelling elements, improvisation and brainstorming: Developing effective characters, story arcs, primary and secondary action, pacing and layout. Not open for credit to students who have completed MMART 116. 0614.40

## MM/AN 2, History of Animation

3 Units  
3 hours lecture (GR or P/INP)  
Acceptable for credit: CSU  
AA/AS area 4c  
History of animation through its social context and impact since its inception: Roots of animation before film technology to modern commercial and artistic animated productions; aesthetics and visual styles in different genres of animation. 0614.40

## MM/AN 3A, Introduction to 2D Animation

3 Units  
2.5 hours lecture, 1.5 hours lab (GR or P/INP)  
Acceptable for credit: CSU  
AA/AS area 4c  
Introduction to the principles of 2D animation: Creating characters; drawing key poses and in-betweens; designing movement paths, pose manipulation and cycles; timing movement based on sound tracks; utilizing storyboards and dynamic composition to create animated scenes; testing motion studies and scene storytelling with software. Not open for credit to students who have completed MMART 177. 0614.40

## MM/AN 3B, Intermediate 2D Animation

3 Units  
2.5 hours lecture 1.5 hours lab (GR or P/INP)  
Prerequisite: MM/AN 3A  
Acceptable for credit: CSU  
AA/AS area 4c  
Project-based study of 2D animation: Developing movement based on the principles of animation; designing characters; timing based on lip-syncing; rotoscoping; coordinating sound to animated shorts and exploring the themes of American animation history. Not open for credit to students who have completed MMART 187. 0614.40

## MM/AN 4, 2D Digital Animation

3 Units  
2.5 hours lecture 1.5 hours lab (GR or P/INP)  
Acceptable for credit: CSU  
AA/AS area 4c  
2D animation using a vector-based imaging and animation program: Survey of traditional animation techniques; importing graphics; creating and manipulating symbols; using keyframes; designing motion paths; using Motion Tweens and Shape Tweens to animate symbols; and publishing the animations to various formats. Not open for credit to students who have completed MMART 186. 0614.40

## MM/AN 10, 2D Experimental Animation

3 Units  
2.5 hours lecture 1.5 hours lab (GR or P/INP)  
Recommended Preparation: MM/AN 3A  
Acceptable for credit: CSU  
AA/AS area 4c  
Exploration of alternative forms of traditional animation: Analysis and application of the techniques of claymation; stop-motion, paper cut-outs, puppets, color sand, mixed media, and set construction and sculpture; digital video manipulation. Not open for credit to students who have completed MMART 181. 0614.40

## MM/AN 19, Character Design and Model Construction

3 Units  
2 hours lecture, 4 hours lab (GR or P/INP)  
Acceptable for credit: CSU  
AA/AS area 4c  
Character design and model construction: Creation of dynamic 3D character models from conceptual Sketches and model sheets to 3D forms using real-world materials as used in animation and gaming to pre-visualize 3D designs in a physical form. 0614.40

**MM/AN 20A, Introduction to 3D Animation**

3 Units  
 2.5 hours lecture 1.5 hours lab (GR or P/INP)  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Introduction to the theory, history and production techniques of 3D Animation: Pre-production through post-production and deliverables; considerations for game and other industries. Not open for credit to students who have completed MMART 188. 0614.40

**MM/AN 20B, 3D Character Animation**

3 Units  
 2.5 hours lecture 1.5 hours lab (GR or P/INP)  
 Recommended Preparation: MM/AN 020A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Study and practice of creating the illusion of life through techniques of 3D Animation: Application of theory to practical scene work with an emphasis on movement and acting in animated characters. Not open for credit to students who have completed MMART 189. 0614.40

**MM/AN 21A, Introduction to 3D Modeling**

3 Units  
 2.5 hours lecture 1.5 hours lab (GR or P/INP)  
 Recommended Preparation: MM/AN 020A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Introduction to 3D Modeling: Principles and techniques of digital modeling in polygons, NURBS, and subdivision surfaces; applications of textures, materials, and lighting to models; rendering with appropriate materials, lighting and cameras. Not open for credit to students who have completed MMART 191. 0614.40

**MM/AN 21B, Intermediate 3D Modeling**

3 Units  
 2.5 hours lecture 1.5 hours lab (GR or P/INP)  
 Prerequisite: MM/AN 021A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Design and construction of digital characters and environments: Creation of production-ready 3D models using organic and hard surface modeling techniques covering the principles of digital sculpting as well as methods for optimizing models for 3D game engines. Not open to students who are in or completed MMART 191. 0614.40

**MM/AN 22A, 3D Layout and Lighting**

3 Units  
 2.5 hours lecture 1.5 hours lab (GR or P/INP)  
 Prerequisite: MM/AN 020A  
 Recommended Preparation: MM/AN 021A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Dynamic composition and visual development for animation: Use of camera angles and perspective to stage effective layouts; application of storytelling elements, research, lighting, color theory and basic design principles. Not open for credit to students who have completed MMART 179. 0614.40

**MM/AN 22B, Special Effects for Animation**

3 Units  
 2.5 hours lecture 1.5 hours lab (GR or P/INP)  
 Prerequisite: MM/AN 020A  
 Recommended Preparation: MM/AN 021A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Production of 2D/3D visual effects animation: Live action and animation application, design and planning special effects based on natural phenomena; animation of 2D/3D objects and effects to be composited into animated scenes or video footage. Not open for credit to students who have completed MMART 180. 0614.40

**MM/AN 23, 3D Rigging**

3 Units  
 2.5 hours lecture 1.5 hours lab (GR or P/INP)  
 Prerequisite: MM/AN 020A  
 Recommended Preparation: MM/AN 021A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Technical development of effective animation controls for 3D models and characters: Use of set driven keys, deformers, constraints and kinematic controls, including the exporting of rigged characters and objects to a game/simulation platform. Not open for credit to students who have completed MMART 192. 0614.40

**MM/AN 24, Performance Animation**

3 Units  
 2.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Prerequisite: MM/AN 20A  
 Recommended Preparation: MM/AN 20B  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Performance animation: Acting techniques with applications to character animation, scene construction, and storytelling; exploration of motivation in creating movement and gesture and how this relates to believable characterization for animation. 0614.40

**MM/AN 25, Animation Production**

3 Units  
 2.5 hours lecture 1.5 hours lab (GR or P/INP)  
 Prerequisite: MM/AN 020A  
 Recommended Preparation: MM/AN 020B, 021A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Creating a short animated piece from design through production: Team dynamics, acting, visual storytelling, working with clients, and completing a short animated project in 2D/2.5D or 3D depending on story. Not open for credit to students who have completed MMART 194. 0614.40

**MM/AN 40A, Introduction to Game Design**

3 Units  
 2.5 hours lecture 1.5 hours lab (GR or P/INP)  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Introduction to game theory and interactive computer game design: Analysis and application of the concepts of pattern recognition, spatial reasoning, branching storytelling, interactive parameters, interface design through the uses of flowcharts, storyboards, story scripts and programming languages. Not open for credit to students who have completed MMART 175B. 0614.20

**MM/AN 40B, Game Level Design**

3 Units  
 2.5 hours lecture 1.5 hours lab (GR or P/INP)  
 Prerequisite: MM/AN 040A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Creation of levels for games and simulations: Level design, architecture theory, concepts of critical path and flow, balancing, play testing, and storytelling. Not open for credit to students who have completed MMART 193. 0614.20

**MM/AN 41A, Introduction to Game Scripting**

3 Units  
 2.5 hours lecture 1.5 hours lab (GR or P/INP)  
 Recommended Preparation: MM/AN 040A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Scripting and programming for visual artists: Fundamental scripting techniques for integrated graphical development environments, including computer modeling, animation, video game and other visual media. Not open for credit to students who have completed MMART 182. 0614.20

### **MM/AN 41B, Video Game Development**

3 Units

2.5 hours lecture 1.5 hours lab (GR or P/INP)

Recommended Preparation: MM/AN 041A

Acceptable for credit: CSU

AA/AS area 4c

Video game development utilizing tools to create interactive game components: Application of 2D and 3D physics engines, menu systems, and animations towards creating a video game. Not open for credit to students who have completed MMART 152C.  
0614.20

### **MM/AN 44, Applications of Virtual and Augmented Reality**

3 Units

2.5 hours lecture, 1.5 hours lab (GR or P/INP)

Prerequisite: MM/AN 40A

Recommended Preparation: MM/AN 41A

Acceptable for credit: CSU

AA/AS area 4c

Applications of virtual and augmented reality: Development and creation of virtual worlds and augmented reality applications and simulations utilizing game engines.  
0614.20

### **MM/AN 50, Career Preparation for Animation and Game Industries**

3 Units

2.5 hours lecture, 1.5 hours lab (GR or P/INP)

Prerequisite: MM/AN 3A

Recommended Preparation: MM/AN 20A and MM/AN 40A

Acceptable for credit: CSU

AA/AS area 4c

Preparation for animation and game industry job market and gig economy: Job search techniques, resume, and cover letter writing skills and a demo reel to result in a completed marketing package.  
0614.40

### **MM/AN 55A, Animation and Game Studio Practice**

1 Unit

4 hours lab (GR or P/INP)

Recommended Preparation: MM/AN 020A

Acceptable for credit: CSU

AA/AS area 4c

Animation and game studio practice: Individual instruction on development of projects within the field of animation and game design.  
0614.40

### **MM/AN 55B, Animation and Game Studio Practice**

1 Unit

4 hours lab (GR or P/INP)

Recommended Preparation: MM/AN 020A

Acceptable for credit: CSU

AA/AS area 4c

Animation and game studio practice: Individual instruction on the development of projects within the field of animation and game design.  
0614.40

### **MM/AN 510, Introduction to 3D Modeling**

0 units

2.5 hours lecture, 1.5 hours lab (P/INP or SP)

Introduction to 3D Modeling: Principles and techniques of digital modeling in polygons, NURBS, and subdivision surfaces; applications of textures, materials, and lighting to models; rendering with appropriate materials, lighting, and cameras.  
0614.40

### **MM/AN 511, 3D Character Animation**

0 Units

2.5 hours lecture, 1.5 hours lab. (P/INP or SP)

Study and practice of creating the illusion of life through techniques of 3D Animation: Application of theory to practical scene work with an emphasis on movement and acting in animated characters.  
0614.40

### **MM/AN 512, Game Level Design**

0 Units

2.5 hours lecture, 1.5 hours lab. (P/INP or SP)

Creation of levels for games and simulations: Level design, architecture theory, concepts of critical path and flow, balancing, play testing, and storytelling.  
0614.40

### **MM/AN 550, Animation and Game Studio Practice**

0 Units

4 hours lab. (P/INP or SP)

Animation and game studio practice: Individual instruction on the development of projects within the field of animation and game design.  
0614.40



# MULTIMEDIA ARTS

## Digital Imaging

### Digital Imaging

#### Associate in Arts Degree

Berkeley City College's A.A. degree in Digital Imaging prepares students for entry-level jobs

in the photography, graphic design, illustration, imaging, and data visualization fields and provides upgraded skills for those already employed in multimedia and data design fields. The program is interdisciplinary and focuses on developing analytical, artistic, critical thinking, and computer skills.

#### Career Opportunities

Photography, studio photography, pre-processing, digital imaging, digital design, advertising, pre-press and press production, and independent printmaking.

<i>Required Core:</i>		<i>Units</i>
MMART 3	Introduction to Digital Art	3
MM/AN 40A	Introduction to Game Design	3
MM/MW 1A+1LA	Introduction to Web Design+Lab	3
MM/VI 9A	Video Production I: Introduction to Video	4

<i>Core Electives Select 6–7 units:</i>		<i>Units</i>
MMART 1	Design Thinking	3
MMART 110	Scriptwriting and Storyboarding	3
MMART 197	Multimedia Career Preparation	3

2017–19 Catalog #	Course Name	Update/New	2019–20 Catalog#	Course Name
MMART 132A/132LA	Illustrator I+Lab	update	MM/DI 1A/LA	Introduction to Digital Illustration+Lab
MMART 132B/132LB	Painter I+Lab	update	MM/DI 1B	Intermediate Digital Illustration
MMART 132C/132LC	Painter II+Lab	update	MM/DI 1C	Advanced Digital Illustration
MMART 131B/131LB	Photoshop II+Lab	update	MM/DI 2	Sketching Fundamentals for Design
MMART 129/129L	Contemporary Color+Lab	update	MMART 3/L	Contemporary Color+Lab
MMART 131A/131LA	Photoshop I+Lab	update	MM/DI 4/4L	Introduction to Photoshop+Lab
MMART 117/117L	Introduction to Desktop Publishing+Lab	update	MM/DI 11	Publication and Page Design
MMART 185A/185LA	3-D Illustration / Cinema 4D I+Lab	update	MM/DI 15A	Introduction to 3D Motion Graphics
MMART 185B/185LB	3-D Illustration / Cinema 4D II+Lab	update	MM/DI 15B	Intermediate 3D Motion Graphics
MMART 133A/133LA	Digital Photography I+Lab	update	MM/DI 20A/LA	Introduction to Digital Photography+Lab
MMART 133B/133LB	Digital Photography II+Lab	update	MM/DI 20B/LB	Intermediate Digital Photography+Lab
MMART 133C/133LC	Digital Photography III+Lab	update	MM/DI 21/L	Digital Photography Studio+Lab
MMART 136/136L	Digital Printing for Photographers+Lab	update	MM/DI 23/L	Digital Printing for Photographers+Lab
MMART 155A/155LA	Special Projects in Digital Photography A+Lab	update	MM/DI 25A/LA	Special Projects in Digital Photography I+Lab
MMART 155B/155LB	Special Projects in Digital Photography B+Lab	update	MM/DI 25B/LB	Special Projects in Digital Photography II+Lab
MMART 134A/134LA	Digital Printmaking I+Lab	update	MM/DI 40A/LA	Introduction to Digital Printing+Lab
MMART 134B/134LB	Digital Printmaking II+Lab	update	MM/DI 40B/LB	Intermediate Digital Printing+Lab
MMART 135A/135LA	Advanced Practices for Digital Printmaking I+Lab	update	MM/DI 45A/LA	Digital Printing Studio Practice I+Lab
MMART 135B/135LB	Advanced Practices for Digital Printmaking II+Lab	update	MM/DI 45B/LB	Digital Printing Studio Practice II+Lab
MMART 137A/137LA	Applications of Large Scale Print I+Lab	update	MM/DI 46A/LA	Large Scale Print Studio Practice I+Lab
MMART 137B/137LB	Applications of Large Scale Print II+Lab	update	MM/DI 46B/LB	Large Scale Print Studio Practice II+Lab

## Associate Degree & Certificate Programs/Course Announcements & Descriptions

MMART 468	Occupational Work Experience in Multimedia Arts	1-4
MM/DI 3+3L	Contemporary Color+Lab	3
MM/DI 4+4L	Introduction to Photoshop+Lab	3
MM/MW 2+2L	Fundamentals of Graphic Visualization+Lab	3
MM/MW4A+4LA	Social Media Marketing and Data Analytics+Lab	3

List A—Select 6 units from the following  
Digital Illustration courses: Units

MMART 5A	Introduction to Motion Graphics	3
MM/DI 1A+1LA	Introduction to Digital Illustration+Lab	3
MM/DI 1B	Intermediate Digital Illustration	3
MM/DI 2	Sketching Fundamentals for Design	3
MM/DI 3+3L	Contemporary Color+Lab	3
MM/DI 15A	Introduction to 3D Motion Graphics	3

List B—Select 6 units from the following  
Digital Photography courses: Units

MM/DI 4+4L	Introduction to Photoshop+ Lab	3
MM/DI 20A+20LA	Introduction to Digital Photography+Lab	3
MM/DI 20B+ 20LB	Intermediate Digital Photography+Lab	3
MM/DI 40A+40LA	Introduction to Digital Printing + Lab	3

List C—Select 6 units from the following  
Digital Printing courses: Credit Hours:  
(0 Required)

MM/DI 1C	Advanced Digital Illustration	3
MM/DI 15B	Intermediate 3D Motion Graphics	3
MM/DI 45A+45LA	Digital Printing Studio Practice I+Lab	3
MM/DI 45B+45LB	Digital Printing Studio Practice II+Lab	3
MM/DI 46A+46LA	Large Scale Print Studio Practice I+ Lab	3
	Major Requirements	37-38
	General Education and Electives	22-23
<b>Total:</b>		<b>60</b>

### Recommended Two-Year Course Sequence Beginning in Fall Semester

Students can use the following pattern to complete an Associate in Arts degree in Multimedia Arts—Digital Imaging. This is only one possible pattern. If they wish to earn an associate degree, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a Counselor. This plan will map their sequence of courses to help them complete their degree regardless of the semester they begin classes.

Course	Units	
<b>1st Semester/Fall</b>		
MMART 3	Introduction to Digital Art	3
MM/AN 40A	Game Design	3
MM/VI 9A	Video Production	4
	Core Elective	1-3
	General Education/Electives	3
<b>Total</b>		<b>14-15</b>

<b>2nd Semester/Spring</b>		
MM/MW1A+1LA	Introduction to Web Design+Lab	3
	Core Elective	3
	One course from Area 1: Digital Illustration	3
	General Education/Elective	6
<b>Total</b>		<b>15</b>

<b>3rd Semester/Fall</b>		
	One course from Area 1: Digital Illustration	3
	One course from Area 2: Digital Photography	3
	One course from Area 3: Digital Printing	3
	General Education/Elective	6
<b>Total</b>		<b>15</b>

<b>4th Semester/Spring</b>		
	One course from Area 2: Digital Photography	3
	One course from Area 3: Digital Printing	3
	General Education/Elective	9
<b>Total</b>		<b>15</b>

#### Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate entry-level skills in digital imagery and design through completed portfolio level projects in both visual and written context.
- Describe, plan and evaluate design principles, aesthetic forms, historical context and social relevance of multimedia works.
- Collaborate effectively within a diverse team environment.

## Digital Imaging: Illustration

### Certificate of Achievement

The Multimedia Certificate of Achievement in Digital Imaging: Illustration prepares students with skills in image creation and visual storytelling as necessary for employment and enrichment.

#### Career Opportunities

Advertising, trade-show exhibitions, marketing image production & display houses.

Required Courses	Units	
MM/DI 1A+1LA	Introduction to Digital Illustration+Lab	3
MM/DI 2	Sketching Fundamentals for Design	3

MM/DI 3+3L	Contemporary Color+ Lab	3
MM/DI 4+4L	Introduction to Photoshop+ Lab	3

Illustration Electives Select 8-9 units from below:

	Units	
ART 30	Beginning Figure Drawing: Anatomy	2
ART 46	2-D Visual Design	3
MM/DI 1B	Intermediate Digital Illustration	3
MM/DI 1C	Advanced Digital Illustration	3
MM/DI 20A+20LA	Introduction to Digital Photography+Lab	3
MM/DI 23+23L	Digital Printing for Photographers+Lab	3
<b>Total:</b>		<b>20-21</b>

Students can use the following pattern to complete a Certificate of Achievement in Multimedia Arts Digital Imaging: Digital Illustration. This is only one possible pattern. If they wish to earn a certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a Counselor. This plan will map their sequence of courses to help them complete their degree regardless of the semester they begin classes.

Course Units

<b>1st Semester/Fall</b>		
MM/DI 1A+1LA	Introduction to Digital Illustration + Lab	3
MM/DI 3+3L	Contemporary Color+ Lab	3
MM/DI 4+4L	Introduction to Photoshop+ Lab	3
	Elective	3
<b>2nd Semester/Spring</b>		
MM/DI 2	Sketching Fundamental for Design	3
	Digital Imaging Elective	6

#### Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate knowledge of the use of digital multimedia equipment and/or software programs for creating and editing multimedia works in digital imaging.
- Use both traditional and digital art techniques to generate creative solutions to problems and expand and transform imagery and ideas into meaningful multimedia works.
- Evaluate artwork with discernment, appropriate terminology, and aesthetic awareness.

## Digital Printmaking

### Certificate of Achievement

The Multimedia Certificate of Achievement in Digital Imaging: Digital Printmaking prepares students with skills in image creation and

manipulation as necessary for employment and enrichment.

**Career Opportunities**

Publishing, printing, advertising, commercial exhibition services, image presentation companies, digital imaging and design.

<i>Required Courses</i>	<i>Units</i>
MM/DI 1A+1LA Introduction to Digital Illustration	
+ Lab	3
MM/DI 4+4L Introduction to Photoshop	
+ Lab	3
MM/DI 40A+40LA Introduction to Digital Printing	
+ Lab	3

*Digital Printmaking Electives—Select 9 units from the following:*

<i>Digital Printmaking Electives—Select 9 units from the following:</i>	<i>Units</i>
MM/DI 20A+20LA Introduction to Digital Photography+Lab	3
MM/DI 40B+040LB Intermediate Digital Printing	
+ Lab	3
MM/DI 45A+045LA Digital Printing Studio Practice I	
+ Lab	3
MM/DI 46A+046LA Large Scale Print Studio Practice I	
+ Lab	3
MM/DI 46B+046LB Large Scale Print Studio Practice II	
+ Lab	3
<b>Total:</b>	<b>18</b>

## Recommended One-Year Course Sequence Beginning in the Fall Semester

Students can use the following pattern to complete a Certificate of Achievement in Multimedia Arts Digital Imaging: Digital Printmaking. This is only one possible pattern. If they wish to earn a certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a Counselor. This plan will map their sequence of courses to help them complete their degree regardless of the semester they begin classes.

<i>Course</i>	<i>Units</i>
<b>1st Semester/Fall</b>	
MM/DI 1A+1LA Introduction to Digital Illustration	
+ Lab	3
MM/DI 4+4L Introduction to Photoshop+Lab	
3	
Elective	3
<b>2nd Semester/Spring</b>	
MM/DI 40A+40LA Introduction to Digital Printing+Lab	
Electives	6

**Program Learning Outcomes**

Upon successful completion of this program, students will be able to:

- Demonstrate knowledge of the use of digital multimedia equipment and/or software programs for creating and editing multimedia works in digital printmaking.
- Use both traditional and digital art techniques to generate creative solutions to problems and expand and transform imagery and ideas into meaningful multimedia works.
- Evaluate artwork with discernment, appropriate terminology, and aesthetic awareness.

## Digital Imaging Certificate of Completion

The Certificate of Completion in Digital Imaging will provide students with multimedia skills necessary for employment in digital imaging.

**Career Opportunities**

Photography, graphic design, advertising, trade-show exhibitions, marketing image production and display houses.

<i>Required courses</i>	<i>Units</i>
MM/DI 510 Photoshop	0
MM/DI 511 Photography	0
MM/DI 512 Digital Printing	0
MM/DI 550 Design Studio Practice	0

**Program Learning Outcomes**

Upon successful completion of this program, students will be able to:

- Use digital multimedia equipment and/or software programs to create and edit multimedia works in digital imaging.
- Use both traditional and digital art techniques to generate creative solutions to problems and expand and transform imagery and ideas into meaningful multimedia works.
- Evaluate artwork with discernment, appropriate terminology, and aesthetic awareness.

## Introduction to Motion Graphics

### Certificate of Completion

This certificate builds skills in motion graphics utilizing both 2D and 3D skills.

**Career Opportunities**

Production artist, motion graphic designer, graphic designer, presentation specialist

<i>Courses</i>	<i>Units</i>
MM/DI 504A Introduction to Digital Illustration	0
MMART 505A Introduction to Motion Graphics	0

MM/DI 515A Introduction to 3D Motion Graphics	0
MM/DI 550 Design Studio Practice	0

**Program Learning Outcomes**

Upon successful completion of this program, students will be able to:

- Demonstrate knowledge of the use of digital multimedia equipment and/or software programs for creating and editing multimedia works in basic motion graphics.
- Demonstrate the use of digital art techniques to generate creative solutions to problems and expand and transform imagery and ideas into meaningful multimedia works, as appropriate to the certificate.

### MM/DI 1A, Introduction to Digital Illustration

*2 Units*  
*1.5 hours lecture, 1.5 hours lab (GR or P/NP)*  
*Co-requisite: MM/DI 1LA*  
*Acceptable for credit: CSU*  
*AA/AS area 4c*  
 Introduction to principles of digital illustration: Composition skills; illustration storytelling; digital illustration in the media and society. Not open for credit to students who have completed MMART 132A. 0614.60

### MM/DI 1LA, Introduction to Digital Illustration Lab

*1 Unit*  
*4 hours lab (GR or P/NP)*  
*Co-requisite: MM/DI 1A*  
*Acceptable for credit: CSU*  
*AA/AS area 4c*  
 Practical training for development of multimedia skills presented in MM/DI 1A. Not open for credit to students who have completed MMART 132LA. 0614.60

### MM/DI 1B, Intermediate Digital Illustration

*3 Units*  
*2.5 hours lecture, 1.5 hours lab (GR or P/NP)*  
*Recommended Preparation: MM/DI 1A*  
*Acceptable for credit: CSU*  
*AA/AS area 4c*  
 Intermediate digital illustration: Visualization of storytelling methods and genres in digital arts expression. Not open for credit to students who have completed MMART 132B. 0614.60

### MM/DI 1C, Advanced Digital Illustration

*3 Units*  
*2.5 hours lecture, 1.5 hours lab (GR or P/NP)*  
*Recommended Preparation: MM/DI 1A*  
*Acceptable for credit: CSU*  
*AA/AS area 4c*  
 Advanced digital illustration: Exploration of the uses of signs and symbols to convert concepts into images using various illustration and typography techniques. Not open for credit to students who have completed MMART 132C. 0614.60

**MM/DI 2, Sketching Fundamentals for Design**

3 Units  
 2.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Sketching and drawing principles and techniques: Observation, attention to format and proportion, perspective and composition, and digital image editing. Not open for credit to students who have completed MMART 131B.  
 0614.60

**MM/DI 3, Contemporary Color**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 3L  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Theory and application of color: Application of subtractive and additive color principles with digital mediums utilizing computer imaging software and interacting with digital color assets. Not open for credit to students who have completed MMART 129.  
 0614.00

**MM/DI 3L, Contemporary Color Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 3  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Individualized instruction on the development of projects on the theory and application of color. Not open for credit to students who have completed MMART 129L.  
 0614.00

**MM/DI 4, Introduction to Photoshop**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 4L  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Introduction to basic image editing and digital illustration using Photoshop: Survey of elementary design principles used to create effective visual communication with emphasis on practical computer based compositions. Not open for credit to students who have completed MMART 131A  
 0614.60

**MM/DI 4L, Introduction to Photoshop Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 4  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for the development of multimedia skills presented in MM/DI 4. Not open for credit to students who have completed MMART 131LA.  
 0614.60

**MM/DI 11, Publication and Page Design**

3 Units  
 2.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Publication and page design: Design layouts for publication utilizing industry standard software, page layout, font selection, formatting, setting defaults, text and graphics placement, graphic scanning, and output. Not open to students who have completed MMART 117.  
 0614.50

**MM/DI 15A, Introduction to 3D Motion Graphics**

3 Units  
 2.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Recommended Preparation: MMART 3  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Introduction to theory and design of 3D motion graphics: Design and production of visual communication solutions utilizing 3D modeling, texturing, lighting, and animation. Not open for credit to students who have completed MMART 185A.  
 0614.60

**MM/DI 15B, Intermediate 3D Motion Graphics**

3 Units  
 2.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Prerequisite: MM/DI 15A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Intermediate 3D motion graphics: Utilizing Cinema 4D and motion graphics-based software, such as After Effects, to create projects with advanced techniques in animation and visual effects, such as broadcast design and film titles. Not open for credit to students who have completed MMART 185B.  
 0614.60

**MM/DI 20A, Introduction to Digital Photography**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 20LA  
 Recommended Preparation: MM/DI 4  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Introduction to composition and image editing in digital photography: Digital camera operation, composition, media considerations, image editing, proofing, and final print. Not open for credit to students who have completed MMART 133A.  
 0614.60

**MM/DI 20LA, Introduction to Digital Photography Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 20A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for development of multimedia skills presented in MM/DI 20A. Not open for credit to students who have completed MMART 133LA.  
 0614.60

**MM/DI 20B, Intermediate Digital Photography**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Prerequisite: MM/DI 20A  
 Co-requisite: MM/DI 20LB  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Intermediate theory and practice of digital photography: Advanced composition, black and white conversions, channels, scanning, blending, stitching, macro-photography, digital printing, and framing. Not open for credit to students who have completed MMART 133B.  
 0614.60

**MM/DI 20LB, Intermediate Digital Photography Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 20B  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for development of multimedia skills presented in MM/DI 20B. Not open for credit to students who have completed MMART 133LB.  
 0614.60

**MM/DI 21, Digital Photography Studio**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Prerequisite: MM/DI 20A  
 Co-requisite: MM/DI 21L  
 Recommended Preparation: MM/DI 20B  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Studio photography: Studio lighting and setup; archival quality prints and online galleries; professional level portfolio development. Not open for credit to students who have completed MMART 133C.  
 0614.50



**MM/DI 21L, Digital Photography Studio Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 21  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for development of multimedia skills presented in MM/DI 21  
 Not open for credit to students who have completed MMART 133LC. 0614.50

**MM/DI 23, Digital Printing for Photographers**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 23L  
 Recommended Preparation: MM/DI 4, 20A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Introduction to digital printing for photographers: Prepress considerations and techniques, operation and care of digital print technologies, history of printmaking, client management, hands-on projects. Not open for credit to students who have completed MMART 136. 0614.60

**MM/DI 23L, Digital Printing for Photographers Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 23  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for development of multimedia skills presented in MM/DI 23.  
 Not open for credit to students who have completed MMART 136L. 0614.60

**MM/DI 25A, Special Projects in Digital Photography I**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Prerequisite: MM/DI 20A  
 Co-requisite: MM/DI 25LA  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Project-based study of digital photography: Low light and night photography; portraiture; use of flash on camera reflectors; natural light; development of photographs in Adobe Lightroom; history of photography; critiques. Not open for credit to students who have completed MMART 155A. 0614.60

**MM/DI 25LA, Special Projects in Digital Photography I Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 25A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for development of multimedia skills presented in MM/DI 25A.  
 Not open for credit to students who have completed MMART 155LA. 0614.60

**MM/DI 25B, Special Projects in Digital Photography II**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Prerequisite: MM/DI 25A  
 Co-requisite: MM/DI 25LB  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Project-based study of digital photography: Use of off-camera flash; advanced use of Adobe Lightroom; printing; landscape/cityscape; documentary photography; history and theory of photography; critiques. Not open for credit to students who have completed 155B. 0614.60

**MM/DI 25LB, Special Projects in Digital Photography II Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 25B  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for development of multimedia skills presented in MM/DI 25B.  
 Not open for credit to students who have completed MMART 155LB. 0614.60

**MM/DI 40A, Introduction to Digital Printmaking**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 40LA  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Introduction to digital printmaking: Conceptual visualization for image making, the creation of digital composites from editing to print, marketing techniques, output issues, and exploration of the creative digital process. Not open for credit to students who have completed MMART 134A. 0614.60

**MM/DI 40LA, Introduction to Digital Printing Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 40A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for development of multimedia skills presented in MM/DI 40A.  
 Not open for credit to students who have completed MMART 134LA. 0614.60

**MM/DI 40B, Intermediate Digital Printing**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 40LB  
 Recommended Preparation: MM/DI 40A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Intermediate digital printmaking: Major projects such as bookmaking and printing on canvas; advanced presentation, marketing and promotional techniques; aesthetic development. Not open for credit to students who have completed MMART 134B. 0614.60

**MM/DI 40LB, Intermediate Digital Printing Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 40B  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for development of multimedia skills presented in MM/DI 40B  
 Not open for credit to students who have completed MMART 134LB. 0614.60

**MM/DI 45A, Digital Printing Studio Practice I**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 45LA  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Project-based study of digital printmaking: Enhancing basic technological and visual skills; history and theory of printmaking; hands-on projects using advanced digital technologies; class critiques of projects; operation of digital printing technologies. Not open for credit to students who have completed MMART 135A. 0614.60

**MM/DI 45LA, Digital Printing Studio Practice I Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 45A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for development of multimedia skills presented in MM/DI 45A. Not open for credit to students who have completed MMART 135LA. 0614.60

**MM/DI 45B, Digital Printing Studio Practice II**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 45LB  
 Recommended Preparation: MM/DI 045A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Project-based study of digital printmaking: Advancing input and acquisition skills to realize artistic vision; history and theory of printmaking; hands-on projects using advanced digital technologies; class critiques of projects; portfolio development; operation of digital printing technologies. Not open for credit to students who have completed MMART 135B. 0614.60

**MM/DI 45LB, Digital Printing Studio Practice II Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 45B  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for development of multimedia skills presented in MM/DI 45B. Not open for credit to students who have completed MMART 135LB. 0614.60

**MM/DI 46A, Large Scale Print Studio Practice I**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 46LA  
 Recommended Preparation: MM/DI 40A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Project-based study of large scale digital printmaking / projection files: Enhancing basic technological and visual skills; history and theory of printmaking; hands-on projects using advanced digital technologies; class critiques of projects; portfolio / files, development; operation of digital printing and projection technologies. Not open for credit to students who have completed MMART 137. 0614.60

**MM/DI 46LA, Large Scale Print Studio Practice I Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 46A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for development of multimedia skills presented in MM/DI 46A. Not open for credit to students who have completed MMART 137LA. 0614.60

**MM/DI 46B, Large Scale Print Studio Practice II**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 46LB  
 Recommended Preparation: MM/DI 46A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Project-based study of advanced practices for large scale print, projection, and installation: Enhancing basic technological and visual skills; advancing input and acquisition skills to realize an artistic vision. Not open for credit to students who have completed MMART 137B. 0614.60

**MM/DI 46LB, Large Scale Print Studio Practice II Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/DI 46B  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for development of multimedia skills presented in MM/DI 46B. Not open for credit to students who have completed MMART 137LB. 0614.60

**MM/DI 504A, Introduction to Digital Illustration**

0 Units  
 1.5 hours lecture, 1.5 hours lab (P/INP or SP)  
 Introduction to principles of digital illustration: Composition skills; illustration storytelling; digital illustration in the media and society. 0614.60

**MM/DI 510, Photoshop**

0 Units  
 1.5 hours lecture, 1.5 hours lab (P/INP or SP)  
 Introduction to basic image editing and digital illustration using Photoshop: Survey of elementary design principles used to create effective visual communication with emphasis on practical computer based compositions. 0614.50

**MM/DI 511, Photography**

0 Units  
 1.5 hours lecture, 1.5 hours lab (P/INP or SP)  
 Theory and practice of digital photography: Advanced composition, black and white conversions, channels, scanning, blending, stitching, macro-photography, digital printing, and framing. 0614.50

**MM/DI 512, Digital Printing**

0 Units  
 1.5 hours lecture, 1.5 hours lab (P/INP or SP)  
 Digital printmaking: Creation of digital composites from editing to completing a print; marketing techniques, output issues, and exploration of the creative digital process. Materials fee required. 0614.10

**MM/DI 515A, Introduction to 3D Motion Graphics**

0 Units  
 2.5 hours lecture, 1.5 hours lab (P/INP or SP)  
 Introduction to theory and design of 3D motion graphics: Design and production of visual communication solutions utilizing 3D modeling, texturing, lighting, and animation. 0614.60

**MM/DI 550, Design Studio Practice**

0 Units  
 4 hours lab (P/INP or SP)  
 Design Studio Practice: Development of projects within design with an emphasis on unifying concepts; creation of comprehensive projects that may include advertising, media, and photographs. 0614.00

# MULTIMEDIA ARTS Mobile and Web

## Mobile and Web Design

### Associate in Arts Degree

Berkeley City College's Multimedia Arts Program in Mobile and Web Design A.A. Degree prepares people for entry-level jobs in the mobile and web design fields and provides upgraded skills for those already employed in multimedia, mobile and web related careers. The program is interdisciplinary and focuses on developing critical thinking, artistic and technical skills.

#### Career Opportunities

Mobile design, Responsive Web Design, Interactive Design, Front End Web Design, Game Design, Digital Marketing, Software Engineering, Creative Technology, Virtual Reality Design, and Social Media Strategy.

Required Courses	Units
MMART 3 Introduction to Digital Art	3
MM/AN 40A Introduction to Game Design	3
MM/MW 1A+1LA Introduction to Web Design+Lab	3
MM/VI 9A Video Production I: Introduction to Video	4

Core electives choose 6–7 units from the following:

MMART 1 Design Thinking	3
MMART 110 Scriptwriting and Storyboarding	3
MMART 197 Multimedia Career Preparation	3

MMART 468 Occupational Work Experience in Multimedia Arts	1–4
MM/DI 3+3L Contemporary Color+Lab	3
MM/DI 4+4L Introduction to Photoshop+Lab	3
MM/MW 2+2L Fundamentals of Graphic Visualization+Lab	3
MM/MW 4A+4LA Social Media Marketing and Data Analytics+Lab	3

Required Major Courses:

MMART 166+166L User Experience and Interface Design+Lab	3
MMART 168+168L Online Games & Interactivity+Lab	3
MM/MW 2+2L Fundamentals of Graphic Visualization+Lab	3
MM/MW 4A+4LA Social Media Marketing and Data Analytics+Lab	3

List A—Select 3 units from the following:

MMART 114+114L Data Design for Digital Media+Lab	3
MMART 167+167L Mobile and Cross-Platform Web Design+Lab	3

List B—Select 6 units from the following:

MMART 162+162L Contemporary Scripting for Games, Mobile and Web+Lab	3
MMART 170+170L Virtual Reality and Digital Spaces+Lab	3
MMART 171+171L Web Commerce & Internet Start Up+Lab	3

**Major Requirements 40–41**

**General Education and Electives 19–20**

**Total Units 60**

## Associate in Arts Degree Recommended Two-Year Course Sequence Beginning in Fall Semester

Students can use the following pattern to complete an Associate in Arts degree in Multimedia Arts—Animation and Game Design. This is only one possible pattern. If they wish to earn an associate degree, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a Counselor. This plan will map their sequence of courses to help them complete their degree regardless of the semester they begin classes.

Courses	Units
<b>1st semester/Fall</b>	
MM/MW 1A+LA Introduction to Web Design+Lab	3
MM/MW 2+2L Fundamentals of Graphic Visualization+Lab	3
MM/VI 9A Video Production: Introduction to Video	4
Core Elective	3
General Education/Electives	3
<b>Total</b>	<b>16</b>
<b>2nd Semester/Spring</b>	
MMART166+166L User Experience and Interface Design+Lab	3
List A Elective	3
Core Elective	3
General Education/Elective	5
<b>Total</b>	<b>14</b>

2017–19 Catalog #	Course Name	Update/New	2019–20 Catalog #	Course Name
MMART 164/164L	Introduction to Web Design+Lab	update	MM/MW 1A/1LA	Introduction to Web Design
MMART 167/167L	Mobile and Cross-Platform Web Design+Lab	no change		
MMART 165/165L	Fundamentals of Graphic Visualization+Lab	update	MM/MW 2/2L	Fundamentals of Graphic Visualization
MMART 169/169L	Social & Emergent Media+Lab	update	MM/MW 4A/4LA	Social Media Marketing and Data Analytics
MMART 114/114L	Data Design for Digital Media+Lab	no change		
MMART 166/166L	User Experience and Interface Design+Lab	no change		
MMART 168/168L	Online Games & Interactivity+Lab	no change		
MMART 162/162L	Contemporary Scripting for Games, Mobile and Web+Lab	no change		
MMART 171/171L	Web Commerce & Internet Start Up+Lab	no change		
MMART 170/170L	Virtual Reality and Digital Spaces+Lab	no change		

## Associate Degree & Certificate Programs/Course Announcements & Descriptions

### 3rd Semester/Fall

MMART 3	Introduction to Digital Art	3
MMART168+168L	Online Games and Interactivity+Lab 3	
MM/MW 4A+4LA	Social Media Marketing and Data Analytics+Lab	3
	General Education/Elective	6
	<b>Total</b>	<b>15</b>

### 4th Semester/Spring

MM/AN 40A	Introduction to Game Design	3
	List B Electives	6
	General Education/Elective	6
	<b>Total</b>	<b>15</b>

#### Program Learning Outcomes

Students who complete the program will be able to:

- Construct web design projects, demonstrating proof of concept.
- Work alone or in a team to create, develop and present storyboards, written proposals and sophisticated websites for client/organization.
- Analyze contemporary avenues for social media discourse and presentation.
- Appraise peer work in relation to the project goals.

## Mobile and Web Design Level I

### Certificate of Achievement

The Multimedia Arts Certificates of Achievement in Mobile and Web are available at Level I and Level II. The Level I Certificate of Achievement in Mobile and Web provides foundational skills in mobile design, web design, UI/UX design, interactive design, aesthetic visualization, project collaboration, and server-side web management. It emphasizes team-building skills, integration with software platforms, interactive applications, modular design, mobile and web frameworks. If you wish to earn a certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a counselor. This plan will map your sequence of courses to help you complete your certificate regardless of the semester you begin classes.

#### Career Opportunities

Front end web design, UI/UX design, social media strategy, content strategist, digital designer, engagement coordinator, graphic designer, digital marketing, interactive design, and responsive designer.

Required Courses	Units	
MMART 166+166L	User Experience and Interface Design+Lab	3
MMART 167+167L	Mobile and Cross-Platform Web Design+Lab	3

MMART 168+168L	Online Games & Interactivity+Lab	3
MM/MW 1A+ 1LA	Introduction to Web Design+Lab	3
MM/MW 2+2L	Fundamentals of Graphic Visualization+Lab	3
MM/VI 9A	Video Production I: Introduction to Video	4
	<b>Total Units</b>	<b>19</b>

## Recommended One-Year Course Sequence Beginning in Fall Semester

If you wish to earn a certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a counselor. This plan will map your sequence of courses to help you complete your certificate regardless of the semester you begin classes.

Courses	Units	
<b>1st Semester/Fall</b>		
MM/MW 1A+1LA	Introduction to Web Design+Lab	3
MM/MW 2+2L	Fundamentals of Graphic Visualization+Lab	3
MM/VI 9A	Video Production I: Introduction to Video	4
	<b>Total</b>	<b>10</b>
<b>2nd Semester/Spring</b>		
MMART 166+166L	User Experience and Interface Design+Lab	3
MMART 167+167L	Mobile and Cross-Platform Web Design+Lab	3
MMART 168+168L	Online Games & Interactivity+Lab	3
	<b>Total</b>	<b>9</b>

#### Program Learning Outcomes

Students who complete the program will be able to:

- Assess current trends in mobile and web design, and formulate an online presence
- Produce original graphic designs employing both traditional-manual skills and computer skills.
- Express identity with project visualizations

## Mobile and Web Design Level II

### Certificate of Achievement

The Multimedia Arts Certificates of Achievement in Mobile and Web are available at Level I and Level II. The Level II Certificate of Achievement in Mobile and Web provide information and practice with advanced techniques in mobile, interactive, and web design. Advanced skills attributed to a front-end web and mobile developer, client-side management, and professional work environments. If you wish to earn a certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a

counselor. This plan will map your sequence of courses to help you complete your certificate regardless of the semester you begin classes.

If you wish to earn a certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a counselor. This plan will map your sequence of courses to help you complete your certificate regardless of the semester you begin classes.

#### Career Opportunities

Mobile design, responsive web design, interactive design, front end web design, game design, digital marketing, software engineering, creative technology, virtual reality design, and social media strategy.

Required Courses	Units	
MMART 114+114L	Data Design for Digital Media+Lab 3	
MMART 162+162L	Contemporary Scripting for Games, Mobile and Web+Lab	3
MMART 170+170L	Virtual Reality and Digital Spaces+Lab	3
MMART 171+171L	Web Commerce & Internet Start Up+Lab	3
MM/MW 4A+4LA	Social Media Marketing and Data Analytics+Lab	3
<b>Choose 3–5 units from the following:</b>		
ART 46	2-D Visual Design	3
CIS 6	Introduction to Computer Programming	5
MM/AN 40A	Introduction to Game Design	3
	<b>Total Units</b>	<b>18–20</b>

## Certificate of Achievement

### Recommended One-Year Course Sequence Beginning in Fall Semester

Students can use the following pattern to complete Certificate of Achievement in Mobile and Web Design Level II. This is only one possible pattern. If they wish to earn a certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a Counselor. This plan will map their sequence of courses to help them complete their degree regardless of the semester they begin classes.

Courses	Units	
<b>1st Semester/Fall</b>		
MMART 162+162L	Contemporary Scripting for Games, Mobile and Web+Lab	3
MM/MW 4A+4LA	Social Media Marketing and Data Analytics+Lab	3
	Mobile and Web Design Elective3–5	
	<b>Total</b>	<b>9–11</b>
<b>2nd Semester/Spring</b>		
MMART 114+114L	Data Design for Digital Media+Lab 3	
MMART 170+170L	Virtual Reality and Digital Spaces+Lab	3



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## Associate Degree & Certificate Programs/Course Announcements & Descriptions

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MMART 171+171L	Web Commerce and Internet Start Up+Lab	3
	<b>Total</b>	<b>9</b>

### Program Learning Outcomes

Students who complete the program will be able to:

- Construct web design projects, demonstrating proof of concept.
- Work alone or in a team to create, develop and present storyboards, written proposals and sophisticated websites for client/ organization.
- Analyze contemporary avenues for social media discourse and presentation.
- Appraise peer work in relation to the project goals.

### MM/MW 1A, Introduction to Web Design

2 Units

1.5 hours lecture, 1.5 hours lab (GR or P/INP)

Co-requisite: MM/MW 1LA

Acceptable for credit: CSU

AA/AS area 4c

Introduction to web design: HTML5, CSS3, CSS Grid Architectures, and Responsive Design for designing a portfolio and expressing an online voice. Not open for credit to students who have completed MMART 164. 0614.30

### MM/MW 1LA, Introduction to Web Design Lab

1 Unit

4 hours lab (GR or P/INP)

Co-requisite: MM/MW 1A

Acceptable for credit: CSU

AA/AS area 4c

Practical training for development of multimedia skills presented in MM/MW 1A. Not open for credit to students who have completed MMART 164LA. 0614.30

### MM/MW 2, Fundamentals of Graphic Visualization

2 Units

1.5 hours lecture, 1.5 hours lab (GR or P/INP)

Co-requisite: MM/MW 2L

Acceptable for credit: CSU

AA/AS area 4c

Graphic visualization: Professional design theory; tools and techniques to design compelling visual content, make decisions with data, apply industry tools, and articulate meaning with design. Not open for credit to students who have completed MMART 165. 0614.30

### MM/MW 2L, Fundamentals of Graphic Visualization Lab

1 Unit

4 hours lab (GR or P/INP)

Co-requisite: MM/MW 2

Acceptable for credit: CSU

AA/AS area 4c

Practical training for development of multimedia skills presented in MM/MW 2. Not open for credit to students who have completed MMART 165L. 0614.30

### MM/MW 4A, Social Media Marketing and Data Analytics Lab

2 Units

1.5 hours lecture, 1.5 hours lab (GR or P/INP)

Co-requisite: MM/MW 4LA

Acceptable for credit: CSU

AA/AS area 4c

Social media marketing: Apply dynamics of online content delivery to motivate and analyze consumer interest, develop a digital marketing ecosystem and integrate content creation tools, brand strategies, consumer interactions, and media analytics. Not open for credit to students who have completed MMART 169. 0614.30

### MM/MW 4LA, Social Media Marketing and Data Analytics Lab

1 Unit

4 hours lab (GR or P/INP)

Co-requisite: MM/MW 4A

Acceptable for credit: CSU

AA/AS area 4c

Practical training for development of multimedia skills presented in MM/MW 4A. Not open for credit to students who have completed MMART 169L. 0614.30

### MMART 114, Data Design for Digital Media

2 Units

1.5 hours lecture, 1.5 hours (GR)

Co-requisite: MMART 114L

Acceptable for credit: CSU

AA/AS area 4c

Data graphics basics: Overview of statistics, choices for charting data, digital input techniques and display methods for illustrating complex information; survey design, user experience, and the use of color, typography and narrative in creating compelling data visualizations. 0614.00

### MMART 114L, Data Design for Digital Media Lab

1 Unit

4 hours lab (GR).

Co-requisite: MMART 114

Acceptable for credit: CSU

AA/AS area 4c

Practical training for development of multimedia skills presented in MMART 114. 0614.00

### MMART 162, Contemporary Scripting for Games, Mobile and Web

2 Units

1.5 hours lecture, 1.5 hours lab (GR or P/INP)

Co-requisite: MMART 162L

Recommended Preparation: MMART 168

Acceptable for credit: CSU

AA/AS area 4c

Introduction to scripting and programming for visual artists: Fundamental scripting techniques for web, mobile, video games, virtual reality, and other visual media; designing, implementing, and testing foundational application programs. 0614.30

### MMART 162L, Contemporary Scripting for Games, Mobile and Web Lab

1 Unit

4 hours lab (GR or P/INP)

Co-requisite: MMART 162

Acceptable for credit: CSU

AA/AS area 4c

Practical training for development of multimedia skills presented in MMART 162. 0614.30

### MMART 166, User Experience and Interface Design

2 Units

1.5 hours lecture, 1.5 hours lab (GR or P/INP)

Co-requisite: MMART 166L

Recommended Preparation: MMART 164

Acceptable for credit: CSU

AA/AS area 4c

Introduction to information architecture and interface design: Graphic and information design principles used to organize, navigate, and develop successful interfaces for new media projects. Not open for credit to students who have completed or are currently enrolled in ART 162 and/or MMART 162. 0614.30

### MMART 166L, User Experience and Interface Design Lab

1 Unit

4 hours lab (GR or P/INP)

Co-requisite: MMART 166

Acceptable for credit: CSU

AA/AS area 4c

Practical training for development of multimedia skills presented in MMART 166. Not open for credit to students who have completed or are currently enrolled in MMART 161A. 0614.30

### MMART 167, Mobile and Cross-Platform Web Design

2 Units

1.5 hours lecture, 1.5 hours lab (GR or P/INP)

Co-requisite: MMART 167L

Recommended Preparation: MMART 164

Acceptable for credit: CSU

AA/AS area 4c

Cross-Platform design techniques for Mobile and Web Design: Mobile development, tablet development, web development, responsive design, and dynamic graphical elements.

0614.30

### MMART 167L, Mobile and Cross-Platform Web Design Lab

1 Unit

4 hours lab (GR or P/INP)

Co-requisite: MMART 167

Acceptable for credit: CSU

AA/AS area 4c

Practical training for development of multimedia skills presented in MMART 167.

0614.30

### MMART 168, Online Games & Interactivity

2 Units

1.5 hours lecture, 1.5 hours lab (GR or P/INP)

Co-requisite: MMART 168L

Recommended Preparation: MMART 164

Acceptable for credit: CSU

AA/AS area 4c

Principles of interactive design and virtual environments: User experience, game design, dynamic graphics, and integration of interactive content for online environments.

0614.30

### MMART 168L, Online Games & Interactivity Lab

1 Unit

4 hours lab (GR or P/INP)

Co-requisite: MMART 168

Recommended Preparation: MMART 164

Acceptable for credit: CSU

AA/AS area 4c

Practical training for development of multimedia skills presented in MMART 168.

0614.30

### MMART 170, Virtual Reality and Digital Spaces

2 Units

1.5 hours lecture, 1.5 hours lab (GR or P/INP)

Co-requisite: MMART 170L

Recommended Preparation: MMART 164 or 165

Acceptable for credit: CSU

AA/AS area 4c

Interactive and game based architectures: virtual reality environments, visible and invisible data, interactive design environments, and visual mapping.

0614.30

### MMART 170L, Virtual Reality and Digital Spaces Lab

1 Unit

4 hours lab (GR or P/INP)

Co-requisite: MMART 170

Acceptable for credit: CSU

AA/AS area 4c

Practical training for development of multimedia skills presented in MMART 170.

0614.30

### MMART 171, Web Commerce and Internet Start Up

2 Units

1.5 hours lecture, 1.5 hours lab (GR or P/INP)

Co-requisite: MMART 171L; Not open for credit to students who have completed are currently enrolled in MMART 160C.

Recommended Preparation: MMART 164

Acceptable for credit: CSU

AA/AS area 4c

Introduction to the principles of E-commerce:

Building an online business, analysis and application of media content, operating shopping carts, and execution of online strategy.

0614.30

### MMART 171L, Web Commerce and Internet Start Up Lab

1 Unit

4 hours lab (GR or P/INP)

Co-requisite: MMART 171; Not open for credit to students who have completed are currently enrolled in MMART 160LC.

Recommended Preparation: MMART 164

Acceptable for credit: CSU

AA/AS area 4c

Practical training for development of multimedia skills presented in MMART 171.

0614.30

# MULTIMEDIA ARTS Film, Television, And Electronic Media

## Associate in Science Degree for Transfer

The Multimedia Arts AS-T Degree in Film, Television, and Electronic Media offers a foundation in film theory, sound, and production. The program is interdisciplinary and focuses on developing critical thinking, artistic and technical skills for careers in film and media industries. Students who successfully complete the AS-T in Film, Television, and Electronic Media earn specific guarantees for transfer to the CSU system: admission to a CSU with junior status, and priority admission to their local CSU campus and to a program or major in multimedia art or a similar major. Students transferring to a CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree. Students are required to complete 60 semester units that are eligible for transfer to a California State University, including both of the following: (1) The Inter-segmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth Requirements and (2) 18 semester units with a grade of C or better in the major and an overall minimum grade point average (GPA) of at least 2.0 in all CSU transferable coursework. Students are advised to consult with a Berkeley City College counselor for additional information and to verify transfer requirements.

### Career Opportunities

Completion of this certificate will provide students with the coursework they need to work in video production, editing, motion graphics, audio recording and sound design, cinematography, documentary production, narrative filmmaking and film criticism.

### Required Courses

MMART 110	Scriptwriting and Storyboarding	3
MMART 122B	From Movies to Multimedia	3
MM/VI 9A	Video Production I: Introduction to Video	4
MM/VI 9C	Video Production III: Directing and Producing	3
MM/VI 24A+24LA	Sound Design I+Lab	3

Video Arts Electives. Choose 3 units from the following:

HUMAN 21	Film: Art and Communication	3
MMART 5A	Introduction to Motion Graphics	3
MMART 468	Occupational Work Experience in Multimedia Arts	3
MM/VI 20A and	Editing I: Introduction to Video Editing	2
MM/VI 20LA	Editing I: Introduction to Video Editing Lab	1
MM/VI 20B and	Editing II: Technical Skills	2

MM/VI 20LB	Editing II: Technical Skills Lab	1
MM/VI 20C and	Editing III: Crafting a Story	2
MM/VI 020LC	Editing III: Crafting a Story Lab	1
	<b>Major Requirements</b>	<b>19</b>
	<b>General Education (IGETC or CSU GE) and Electives</b>	<b>41</b>
	<b>Total Units:</b>	<b>60</b>

## Recommended Two-Year Course Sequence Beginning in Fall Semester

Students can use the following pattern to complete an Associate in Science in Film, Television, and Electronic Media Degree for Transfer. This is only one possible pattern. If they wish to earn an associate degree, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a Counselor. This plan will map their sequence of courses to help them complete their degree regardless of the semester they begin classes.

<i>Course</i>	<i>Units</i>
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### 1st Semester/Fall

MMART 110	Scriptwriting and Storyboarding	3
	Video Arts Elective	6
	General Education/Elective	6

### 2nd Semester/Spring

MM/ART 122B	From Movies to Multimedia	3
MM/VI9A	Video Production I: Introduction to Video	4
MM/VI 24 A+24 LA	Sound Design I and Lab	3
	General Education/Elective	6

### 3rd Semester/Spring

MM/VI 9C	Video Production III: Directing and Producing	3
	Video Arts Elective	6
	General Education/Elective	6

### 4th Semester/Spring

	Video Arts Electives	3
	General Education/Elective	6

### Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate entry-level skills in film, television, and electronic media via completed projects.
- Evaluate design principles, aesthetic forms, historical context and social relevance of multimedia works.
- Delegate responsibilities according to various crew roles and applying collaborative communication skills in a professional setting.

# MULTIMEDIA ARTS

## Video Arts

### Associate in Arts Degree

Berkeley City College's A.A. Degree in Multimedia Arts—Video Arts prepares students for entry-level jobs in video production and editing fields, and provides upgraded skills for those already employed in multimedia or film related jobs. The program focuses on developing artistic, critical thinking, equipment and computer skills.

#### Career Opportunities

The A.A. in Video Arts is designed to prepare students to transfer to education programs at four-year institutions. Additionally, completion of this A.A. will provide students with the coursework they need to work as video producers, video editors, motion graphics designers, on-location or studio recordists,

sound designers for radio and motion picture, cinematographers, camera operators, gaffers, grips, documentaries and nonfiction producers, video directors, social media content producers, social media producers or project managers.

#### Required Core Courses :

Course	Description	Units
MMART 3	Introduction to Digital Art	3
MM/AN 40A	Introduction to Game Design	3
MM/MW 1A+1LA	Introduction to Web Design+Lab	3
MM/VI 9A	Video Production I: Introduction to Video	4

#### Core Electives. Choose 6 units from the following:

MMART 1	Design Thinking	3
MMART 110	Scriptwriting and Storyboarding	3
or		
MM/VI 1A	Introduction to Narrative Scriptwriting	3

MMART 197	Multimedia Career Preparation	3
MMART 468	Occupational Work Experience in Multimedia Arts	1
MM/DI 3+3L	Contemporary Color+Lab	3
MM/DI 4+4L	Introduction to Photoshop+Lab	3
MM/MW 2+2L	Fundamentals of Graphic Visualization+Lab	3
MM/MW 4A+4LA	Social Media Marketing and Data Analytics+Lab	3
MM/VI 5	The Art of Producing	3

#### Required Video Courses:

Course	Description	Units
MMART 110	Scriptwriting and Storyboarding	3
MMART 197	Multimedia Career Preparation	3
MMART 468	Occupational Work Experience in Multimedia Arts	1
MM/VI 20A+20LA	Editing I: Introduction to Video Editing+Lab	3
MM/VI 24A+24LA	Sound Design I+Lab	3

2017–19 Catalog #	Course Name	Update/New	2019–20 Catalog#	Course Name
MMART 111A	Narrative Scriptwriting I	update	MM/VI 1A	Introduction to Narrative Scriptwriting
MMART 111B	Narrative Scriptwriting II	update	MM/VI 1B	Intermediate Narrative Scriptwriting
MMART 109	Writing for the Business of Multimedia	update	MM/VI 5	The Art of Producing
MMART 141A	Video Production I	update	MM/VI 09A	Video Production I: Introduction to Video
MMART 141B	Video Production II: Directing & Producing	update	MM/VI 9B	Video Production II: Cinematography and Visual Storytelling
MMART 141C	Video Production III	update	MM/VI 9C	Video Production III: Directing and Producing
MMART 142	Visual Storytelling & Cinematography	update	MM/VI 9D	Video Production IV: Advanced Team Projects
MMART 156	Documentary Production Intensive	update	MM/VI 15	Documentary Production and Editing
MMART 113	Social Media Reporting	update	MM/VI 16	Social Media Storytelling
MMART 112	Writing for News and Documentary	update	MM/VI 17	Social Media Production
MMART 150A/150LA	Video Editing I+Lab	update	MM/VI 20A/LA	Editing I: Introduction to Video Editing
MMART 150B/150LB	Video Editing II+Lab	update	MM/VI 20B/LB	Editing II: Technical Skills
MMART 150C/150LC	Video Editing III+Lab	update	MM/VI 20C/LC	Editing III: Crafting a Story
MMART 150D/150LD	Video Editing IV+Lab	update	MM/VI 20D/LD	Editing IV: Editing for Distribution
MMART 148A/148LA	Sound Recording and Editing+Lab	update	MM/VI 24A/LA	Sound Design I
MMART 148B/148LB	Sound for Film & Animation+Lab	update	MM/VI 24B/LB	Sound Design II
MMART 138	Location Sound Recording	update	MM/VI 25/025L	Sound Recording and Audio Production
MMART 153	Digital Cinematography Basics	update	MM/VI 41	Cinematography Fundamentals
MMART 157	Beginning Motion Picture Lighting	update	MM/VI 42	Introduction to Motion Picture Lighting



## Associate Degree & Certificate Programs/Course Announcements & Descriptions

Video Electives. Choose 9 units from below:

		<i>Units</i>
MMART 122B	From Movies to Multimedia	3
MM/VI 9B	Video Production II: Cinematography and Visual Storytelling	3
MM/VI 9C	Video Production III: Directing and Producing	3
MM/VI 15	Documentary Production and Editing	3
MM/VI 20B+20LB	Editing II: Technical Skills+Lab	3
MM/VI 20C+20LC	Editing III: Crafting a Story+Lab	3
MM/VI 24B+24LB	Sound Design II+Lab	3
	Major Requirements	41
	General Education and Electives	19
	<b>Total:</b>	<b>60</b>

### Recommended Two-Year Course Sequence Beginning in Fall Semester

Students can use the following pattern to complete an Associate in Arts degree in Multimedia Arts—Video Arts. This only one possible pattern. If you wish to earn an associate degree or certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a Counselor. This plan will map your sequence of courses to help you complete your degree regardless of the semester you begin classes.

		<i>Units</i>
<b>1st semester/Fall</b>		
MMART 3	Introduction to Digital Art	3
MMART 110	Scriptwriting and Storyboarding	3
MM/VI 9A	Video Production I: Introduction to Video	4
	General Education/Elective	6
<b>2nd Semester/Spring</b>		
MM/AN 40A	Introduction to Game Design	3
MM/VI 20A+LA	Editing I: Introduction to Video Editing	3
MM/VI	024A and 024LA Sound Design I+Lab	3
	Core Elective	3
	General Education/Elective	3
<b>3rd Semester/Spring</b>		
MM/MW 1A+1LA	Introduction to Web Design+Lab	3
	Video Elective	6
	Core Elective	3
	General Education/Elective	3
<b>4th Semester/Spring</b>		
MMART 197	Multimedia Career Preparation	3
MMART 468	Occupational Work Experience in Multimedia	1
	Video Elective	3
	General Education/ Elective	7

#### Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate entry-level skills in video arts via completed portfolio projects.

- Describe, plan and evaluate design principles, aesthetic forms, historical context and social relevance of multimedia works.
- Collaborate effectively within a diverse team environment

## Video Arts Level I

### Certificate of Achievement

The Multimedia Arts Certificate of Achievement in Video Arts at Level I provides technical training in professional video production and use of equipment, as well as post-production practices and software, with an emphasis on establishing effective communication skills in a highly collaborative industry.

#### Career Opportunities

Completion of this certificate will provide students with the coursework they need to work as assistant editors or editors, sound designers, screenwriters, story boarders, film festival assistants, on-location sound recordists, and camera team positions such as 1st or 2nd assistant camera.

		<i>Units</i>
<i>Required Courses:</i>		
MMART 110	Scriptwriting and Storyboarding	3
MMART 197	Multimedia Career Preparation	3
MM/VI 5	The Art of Producing	3
MM/VI 9A	Video Production I: Introduction to Video	4
MM/VI 20A+20LA	Editing I: Introduction to Video Editing+Lab	3
MM/VI 24A+24LA	Sound Design I+Lab	3

		<i>Units</i>
<i>Choose 3 units the following:</i>		
MMART 122B	From Movies to Multimedia	3
MMART 468	Occupational Work Experience in Multimedia Arts	3
MM/VI 25	Sound Recording and Audio Production	1.5
MM/VI 41	Introduction to Cinematography	1.5
MM/VI 42	Introduction to Motion Picture Lighting	1.5
	<b>Total:</b>	<b>22</b>

### Recommended one-year Course Sequence Beginning in Fall semester

If you wish to earn a certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a counselor. This plan will map your sequence of courses to help you complete your certificate regardless of the semester you begin classes.

		<i>Units</i>
<b>1st Semester/Fall</b>		
MMART 110	Scriptwriting & Storyboarding	3
MM/VI 9A	Video Production I: Introduction to Video	4
MM/VI 20A+20LA	Editing I: Introduction to Video Editing+Lab	3

#### 2nd Semester/Spring

MM/ART 197	Multimedia Career Preparation	3
MM/VI 20A+20LA	Editing I: Introduction to Video Editing+Lab	3
MM/VI 24A/LA	Sound Design I & Lab	3
	Elective	3

#### Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate technical knowledge by completing video and audio content assignments.
- Analyze the various components of video and audio to better understand its psychological and emotional impact.
- Display appropriate professional and collegiate behavior within a team.

## Video Arts Level II: Directing & Producing

### Certificate of Achievement

The Multimedia Arts Certificate of Achievement in Video Arts Level II: Directing and Producing provides a foundation of analytical and professional techniques for fundraising and project proposals, communication with collaborators, as well as project coordinating, scheduling and budgeting towards assistant directing and producing duties.

#### Career Opportunities

Completion of this certificate will provide students with the coursework they need to work assistant directors, production coordinators, unit production managers, line producers, directors and video producers.

		<i>Units</i>
<i>Choose 9–10 units from below:</i>		
MMART 197	Multimedia Career Preparation	3
or		
MMART 468	Occupational Work Experience in Multimedia Arts	3–4
MM/VI 5	The Art of Producing	3
MM/VI 9C	Video Production III: Directing and Producing	3

Choose 9 units from one of the emphases below:

#### Directing Emphasis

MMART	122B From Movies to Multimedia	3
MMART 123	The Art of Documentary Film	3
MM/VI 1A	Introduction to Narrative Scriptwriting	3
MM/VI 1B	Intermediate Narrative Scriptwriting	3
MM/VI 9B	Video Production II: Cinematography and Visual Storytelling	3

#### Producing Emphasis

		<i>Units</i>
MM/VI 9B	Video Production II: Cinematography and Visual Storytelling	3
MM/VI 9D	Video Production IV: Advanced Team Projects	3

**Associate Degree & Certificate Programs/Course Announcements & Descriptions**

MM/VI 15	Documentary Production and Editing	3
MM/VI 17	Social Media Production	3
<b>Total:</b>		<b>18–19</b>

If you wish to earn a certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a counselor. This plan will map your sequence of courses to help you complete your certificate regardless of the semester you begin classes.

## Recommended One-Year Course Sequence Beginning in Fall Semester

Course	Units
<b>1st Semester/Fall</b>	
MM/VI 9C	Video Production III: Directing & Producing 3
MM/VI 5	The Art of Producing 3
	Writing or Producing Elective 3
<b>2nd Semester/Spring</b>	
MMART 197	Multimedia Career Preparation 3
or	
MMART 468	Occupational Work Experience in Multimedia 3–4
and	
Directing Emphasis Electives	6
or	
Producing Emphasis Electives	6

### Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate entry level skills in directing and producing in motion picture and/or related media projects.
- Apply collaborative communication skills in a professional manner, in a leadership or supportive role as applicable.

## Video Arts Level II: Editing & Post Production

### Certificate of Achievement

The Video Arts Level II: Editing and Post Production Certificate of Achievement provides theory and practice of industry standards for film aesthetics and time-based media design; video and audio acquisition, effects, deliverables output, and project and media management.

### Career Opportunities

Completion of this certificate will provide students with the coursework they need to work as sound designers and video editors, color graders, assistant editors, and motion graphic artists for a variety of client types.

Select 6–7 units from the following: Units

MMART 197	Multimedia Career Preparation	3
or		
MMART 468	Occupational Work Experience in Multimedia Arts	3–4
MM/VI 20B+20LB	Editing II: Technical Skills+Lab	3

Select 12 units from the following: Units

MMART 5A	Introduction to Motion Graphics	3
MMART 122B	From Movies to Multimedia	3
MM/DI 15A	Introduction to 3D Motion Graphics	3
MM/VI 15	Documentary Production and Editing	3
MM/VI 20C+20LC	Editing III: Crafting a Story+Lab	3
MM/VI 20D+20LD	Editing IV: Editing for Distribution+Lab	3
MM/VI 24B+24LB	Sound Design II+Lab	3
<b>Total:</b>		<b>18–19</b>

## Recommended One-Year Course Sequence Beginning in Fall Semester

If you wish to earn a certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a counselor. This plan will map your sequence of courses to help you complete your certificate regardless of the semester you begin classes.

Course	Units	
<b>1st Semester/Fall</b>		
MM/VI 20B+20LB	Editing II: Technical Skills+Lab 3	
	Electives 6	
<b>Total</b>		<b>9</b>
<b>2nd Semester/Spring</b>		
MMART 197	Multimedia Career Preparation 3	
or		
MMART 468	Occupational Work Experience in Multimedia Arts 1–4	
	Electives 6	
<b>Total</b>		<b>10–13</b>

### Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate command of major video post production programs and related equipment at an intermediate to advanced skill level.
- Create student projects and evaluate with discernment, appropriate terminology, and aesthetic awareness resulting in professional level projects.
- Applying collaborative communication skills in a professional manner, under the lead of a director or producer if applicable.

## MM/VI 1A, Introduction to Narrative Scriptwriting

3 Units  
3 hours lecture (GR or P/INP)  
Recommended Preparation: MMART 110  
Acceptable for credit: CSU  
AA/AS area 4c

Theory and practice of narrative scriptwriting with a dual focus on film and episodic scripts: Narrative structures in film and television; industry-accepted formatting; story development; cinematic language. Not open for credit to students who have completed MMART 111A. 0612.20

## MM/VI 1B, Intermediate Narrative Scriptwriting

3 Units  
3 hours lecture (GR or P/INP)  
Prerequisite: MMART 110 or MM/VI 1A  
Acceptable for credit: CSU  
AA/AS area 4c

Advanced workshop in revising and completing a professional-level narrative script: Critique and revisions of student scripts, professional screenplay and film analysis, pitch and strategy sessions; dissection of complex narrative elements, such as voice, character, and pacing. Not open for credit to students who have completed MMART 111B. 0612.20

## MM/VI 5, The Art of Producing

3 Units  
3 hours lecture (GR or P/INP)  
Acceptable for credit: CSU  
AA/AS area 4c and 4d  
Development of materials to pitch a multimedia project: Effective writing structure and style; portfolios, prospectus packets, grant writing, pitches, treatments, budgets, and development of industry contacts. Not open for credit to students who have completed MMART 109. 0612.20

## MM/VI 9A, Video Production I: Introduction to Video

4 Units  
3 hours lecture, 4 hours lab (GR or P/INP)  
Recommended Preparation: MMART 110  
Acceptable for credit: CSU  
AA/AS area 4c

Theory and practice of shooting video in studio and field environments: Terminology, set-etiquette, composition and editing techniques, camera operation, portable lighting, and audio recording; aesthetics and fundamentals of producing a video project from a script, post-production specifications, and exhibition/distribution. Not open for credit to students who have completed MMART 141A. 0612.20

**MM/VI 9B, Video Production II: Cinematography and Visual Storytelling**

3 Units  
 2 hours lecture, 3 hours lab (GR or P/INP)  
 Prerequisite: MMART 141A or MM/VI 9A  
 Recommended Preparation: MMART 110  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Directing and producing a video project from script to screen: Script analysis from pragmatic to aesthetic perspectives, cinematography, lighting and art direction techniques. Not open for credit to students who have completed MMART 141B or 151B. 0612.20

**MM/VI 9C, Video Production III: Directing and Producing**

3 Units  
 2 hours lecture, 3 hours lab (GR or P/INP)  
 Prerequisite: MMART 141A or MM/VI 9A  
 Recommended Preparation: MMART 110  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Video production: Development of advanced skills in producing, coordinating and directing. Not open for credit to students who have completed MMART 141C. 0612.20

**MM/VI 9D, Video Production IV: Advanced Team Projects**

3 Units  
 2 hours lecture, 4 hours lab (GR or P/INP)  
 Prerequisite:  
 MMART 141A or MM/VI 9A  
 MMART 150A or MM/VI 20A  
 MMART 141B or MM/VI 9B  
 Prerequisite or Co-requisite:  
 MM/VI 9B  
 Recommended Preparation:  
 MMART 109 or MM/VI 5  
 MMART 141C or MM/VI 9C  
 MMART 110  
 MMART 138 or MM/VI 25  
 MMART 148A or MM/VI 24A  
 MMART 157 or MM/VI 42  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Creation of completed film: Motion picture projects from pitch to exhibition through collaborative teamwork. Not open for credit to students who have completed MMART 142. 0612.20

**MM/VI 15, Documentary Production and Editing**

3 Units  
 2.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Prerequisite: MMART 141A or MM/VI 9A  
 Prerequisite: MMART 150A or MM/VI 20A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Theory and practice of documentary video production: Creating a non-fiction treatment and script, filming interviews and b-roll, editing a short non-fiction video program. Not open for credit to students who have completed MMART 156. 0612.20

**MM/VI 16, Social Media Storytelling**

3 Units  
 2.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Prerequisite:  
 MM/VI 9A or MMART 141A  
 MM/VI 20A or MMART 150A  
 Recommended Preparation:  
 ENGL 14  
 MMART 5A or MMART 152A  
 MMART 110  
 MM/DI 4 or MMART 131A  
 MM/VI 25 or MMART 138  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Social media with emphasis on storytelling: Creation of pod casts, written copy, short videos, and photos appropriate for different social media platforms and campaign types; editing media and publishing online. 0612.20

**MM/VI 17, Social Media Production**

3 Units  
 2.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Prerequisite:  
 MM/VI 9A or MMART 141A  
 MM/VI 20A or MMART 150A  
 MM/VI 9C or MMART 141C  
 Recommended Preparation:  
 MM/DI 4 or MMART 131A  
 MM/MW 4A or MMART 169  
 MM/VI 15 or MMART 156  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Team and project management applied toward marketing a cause or client: Creating social media publicity content and distribution plan. 0612.20

**MM/VI 20A, Editing I: Introduction to Video Editing**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Co-requisite: MM/VI 20LA  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Theory and practice of digital video editing: Film aesthetics and editing techniques using a major software program, acquisition of footage, skilled use effects and sound to support storytelling, media management and exporting. Not open for credit to students who have completed MMART 150A. 0612.20

**MM/VI 20LA, Editing I: Introduction to Video Editing Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/VI 20A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Editing I: Introduction to Video Editing Lab. Not open for credit to students who have completed MMART 150LA. 0612.20

**MM/VI 20B, Editing II: Technical Skills**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Co-requisite: MM/VI 20LB  
 Recommended Preparation: MM/VI 20A.  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Continuing development of technical video editing skills: Work-flow analysis, roles and responsibilities; intermediate film aesthetics; color correction; title generation; sound normalization and sweetening; organization and preparation of files for finishing, industry copyright standards. Not open for credit to students who have completed MMART 150B. 0612.20

**MM/VI 20LB, Editing II: Technical Skills Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/VI 20B  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for development of multimedia skills presented in MM/VI 20B. Not open for credit to students who have completed MMART 150LB. 0612.20

**MM/VI 20C, Editing III: Crafting a Story**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Prerequisite: MM/VI 20B or MMART 150B  
 Co-requisite: MM/VI 20LC  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Theory and practice of storytelling in a video edit: Development of story arcs, smooth and polished transitions, pacing, sound sweetening, problem solving technical and narrative challenges, practice cutting material to fit a variety of film genres and organization of materials to support editorial goals. Not open for credit to students who have completed MMART 150C. 0612.20

**MM/VI 20LC, Editing III: Crafting a Story Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/VI 20C  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for development of multimedia skills presented in MM/VI 20C. Not open for credit to students who have completed MMART 150LC. 0612.20

**MM/VI 20D, Editing IV: Editing for Distribution**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Prerequisite: MMART 150C or MM/VI 20C  
 Co-requisite: MM/VI 20LD  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Finishing techniques and distribution planning for a broadcast-ready video: Refinement of editorial structure, pacing, visual style, sound design; advanced finishing techniques; developing a distribution plan; broadcast and related output considerations; legal and permissions issues and ethics; emerging technologies including new distribution methods and virtual reality projects. Not open for credit to students who have completed MMART 150D. 0612.20

**MM/VI 20LD, Editing IV: Editing for Distribution Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/VI 20D  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for development of multimedia skills presented MM/VI 20D. Not open for credit to students who have completed MMART 150LD. 0612.20

**MM/VI 24A, Sound Design I**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Co-requisite: MM/VI 24LA  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Introduction to the theory and practice of recording and editing audio: Fundamentals of sound design and aesthetics, microphone use, and digital recording equipment; hands on experience recording, editing, mixing and mastering audio. Not open for credit to students who have completed MMART 148A. 0612.20

**MM/VI 024LA, Sound Design I Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/VI 24A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for development of multimedia skills presented in MM/VI 24A. Not open to students who have previously completed MMART 148LA. Not open for credit for students who have completed 150LA. 0612.20

**MM/VI 24B, Sound Design II**

2 Units  
 1.5 hours lecture, 1.5 hours lab (GR or P/INP)  
 Prerequisite: MMART 148A or MM/VI 24A  
 Co-requisite: MM/VI 24LB  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Advanced practice and theory of sound design: Advanced sound editing techniques using industry-standard tools to enhance story and film visuals; research/screenings of influential sound artists; emerging sound technologies. Not open for credit to students who have completed MMART 148B. 0612.20

**MM/VI 024LB, Sound Design II Lab**

1 Unit  
 4 hours lab (GR or P/INP)  
 Co-requisite: MM/VI 24B  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Practical training for development of multimedia skills presented in MM/VI 24B. Not open to students who have previously completed MMART 148LB. 0612.20

**MM/VI 25, Sound Recording and Audio Production**

1.5 Units  
 1.5 hours lecture (GR or P/INP)  
 Recommended Preparation: MM/VI 9A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Location sound recording for multimedia arts: Audio theory and principles; critical listening; analysis of studio and location audio environments; microphone types, selection, placement and use; use of audio mixers and digital recorders; crew organization, function and responsibilities. Not open for credit to students who have completed MMART 138. 0612.20

**MM/VI 41, Introduction to Cinematography**

1.5 Units  
 1.5 hours lecture (GR or P/INP)  
 Recommended Preparation: MM/VI 9A or MMART 141A  
 MM/VI 20A or MMART 150A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Storytelling through cinematography: Pre-production preparation, on-set protocol, motion picture aesthetics, industry and on-set terminology; shot development, camera movement, lens selection and blocking of subjects; duties and responsibilities of the camera team. Not open for credit to students who have completed MMART 153. 0612.20

**MM/VI 42, Introduction to Motion Picture Lighting**

1.5 Units  
 1.5 hours lecture (GR or P/INP)  
 Prerequisite: MMART 141A or MM/VI 9A or  
 Co-requisite: MM/VI 9A  
 Acceptable for credit: CSU  
 AA/AS area 4c  
 Lighting basics for motion picture: Lighting theory, electricity and safety, use of lighting equipment, accessories and tools, on-set protocol, motion picture aesthetics, industry and on-set terminology, duties and responsibilities of the lighting team. Not open for credit to students who have completed MMART 157. 0612.20



# MMART: Non-credit Classes

## Non-credit for Animation and Game

2019–20 Catalog#	Course Name
MM/AN 510	3D Modeling
MM/AN 511	Character Animation
MM/AN 512	Game Level Design
MM/AN 550	Animation and Game Studio Practice

## Non-credit for Digital Imaging

2019–20Catalog#	Course Name
MM/DI 510	Photoshop
MM/DI 511	Photography
MM/DI 512	Digital Printing
MM/DI 550	Design Studio Practice

## Non-credit for Motion Graphics

2019–20 Catalog#	Course Name
MM/DI 504A	Introduction to Illustration
MMART 505A	Introduction to Motion Graphics
MM/DI 515A	Introduction to 3D Motion Graphics
MM/DI 550	Design Studio Practice