

Area: Fine & Applied Arts
 Dean: Angela Milano
 Phone: (916) 484-8433
 Counseling: (916) 484-8572

Degree: A.A. - Art New Media
 A.A. - Technical Communications
 Certificates: ARTNM: Character Design
 ARTNM: Commercial Illustration
 3D Animation
 3D Modeling and Texturing
 3D Rigging Technical Director
 3D Technical Director
 Graphic Design: Intern Artist
 Graphic Design: Junior Artist
 Graphic Design: Production Artist
 Illustration
 Web Design
 Technical Communications
 Department Certificate:
 Foundation

DEGREES AND CERTIFICATES

Art New Media Degree

Major Code: 011026A01

This degree emphasizes visual arts produced in a digital environment. Art New Media focuses on new technology and a strong foundation in the fundamentals of visual art. Coursework includes a wide spectrum of studies in traditional and new media fundamentals relevant to art and design.

Student Learning Outcomes

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

- analyze design principles relevant to new media technology
- combine various technical skills in the field of art new media
- create visual images utilizing traditional and/or digital media
- synthesize concepts of modern art history and apply them to illustration, animation, graphic design and web design
- conceive visual solutions for successful visual communication
- critique new media works

Career Opportunities

Career opportunities include Graphic Designer, Character Designer, 3D Animator, Web Designer, 3D Modeler and Texture Artist, 3D Artist, Commercial Illustrator, and Print Designer.

Requirements for Degree	33 Units
ART 300 Drawing and Composition I	3
ART 320 Design: Fundamentals	3
ART 323 Design: Color Theory	3
ARTH 310 Modern Art	3
ARTNM 305 History of Graphic Design	3
ARTNM 450 Portfolio for Art New Media	3
And a minimum of 15 units from the following:	15
ARTNM 302 Digital Basics for Art New Media (1.5)	
ARTNM 303 Graphic Design: Typography (3)	
ARTNM 320 Facial Expression and Anatomy (3)	
or ART 306 Facial Expression and Anatomy (3)	
ARTNM 322 Beginning Digital Art (3)	
ARTNM 324 Digital Design (3)	
ARTNM 325 Intermediate Digital Design (3)	

ARTNM 326	Digital Painting (3)
ARTNM 328	Beginning Digital Photo Imagery (3)
ARTNM 330	Intermediate Digital Photo Imagery (3)
ARTNM 331	Integrating Digital Media with Traditional Media I (3)
or ART 339	Integrating Digital Media with Traditional Media I (3)
ARTNM 332	Digital Video (3)
ARTNM 352	Design for Publication (3)
ARTNM 354	Digital Prepress (3)
ARTNM 356	Advanced Projects In Graphic Design (3)
ARTNM 358	College Magazine: Art Selection and Editing (1 - 2)
ARTNM 359	College Magazine: Design and Production (3)
ARTNM 370	Introduction to Illustration (3)
or ART 314	Introduction to Illustration (3)
ARTNM 372	Character Design (3)
or ART 317	Character Design (3)
ARTNM 373	Storyboarding (3)
ARTNM 401	Introduction to Web Design (3)
ARTNM 402	Intermediate Web Design (3)
ARTNM 404	Interactive Basics (3)
ARTNM 405	Digital 2D Animation (3)
ARTNM 406	Design for Tablets (3)
ARTNM 420	Introduction to 3D Modeling (3)
ARTNM 421	3D Character Modeling (3)
ARTNM 422	3D Animation (3)
ARTNM 423	3D Texturing (3)
ARTNM 429	3D Rigging and Rig Building (3)
ARTNM 431	3D Short Production (3)
CISW 300	Web Publishing (3)
WEXP 498	Work Experience in (Subject) (1 - 4)

Associate Degree Requirements: The Art New Media Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

ARTNM: Character Design Certificate

Major Code: 011396C01

This certificate focuses on the visual concept development of believable characters. Skills in traditional and digital illustration are applied to create characters for animation, games, comics, graphic novels, children's books, and illustrated novels.

Student Learning Outcomes

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

- create believable characters using traditional and digital media
- research the environment, social and cultural structure, anatomy, costume and motion as they relate to a particular narrative
- create characters with believable gesture and movement that are consistent with the character concept
- analyze and apply facial expressions for the character that effectively describe the character within a narrative
- utilize references from photographs, illustration, and animation to create characters that effectively interact within their environment
- compile a portfolio that presents the process of character creation from research through final presentation

Career Opportunities

Career opportunities include film, game, broadcast, and illustration industries.

Requirements for Certificate		18 Units
ART 300	Drawing and Composition I	3
ART 304	Figure Drawing I	3
ART 306	Facial Expression and Anatomy (3)	3
or ARTNM 320	Facial Expression and Anatomy (3)	3
ARTNM 326	Digital Painting	3
ARTNM 372	Character Design	3
A minimum of 3 units from the following:		3
ART 305	Figure Drawing II (3)	
ART 375	Figure Sculpture (3)	

ARTNM: Commercial Illustration Certificate

Major Code: 011397C01

This certificate focuses on traditional visual art principles to clearly communicate the needs of a client and their target audience. It includes skill sets from both the traditional arts and digital media. Illustration skills are applied in areas of editorial, advertising, technical and book illustration, as well as 3D modeling and texturing, animation, set design, and product design.

Student Learning Outcomes

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

- create drawn and painted images using traditional and digital media
- research and develop visual content with an understanding of the client's target audience
- develop and produce visual solutions that meet the needs of a client within a deadline
- analyze and apply color schemes to communicate a message that meets the client's needs
- research modern art and illustration history, applying concepts to illustrations to effectively communicate visually within contemporary culture
- compile a portfolio that demonstrates skill with both traditional and digital media and client based concept development

Career Opportunities

Career opportunities include editorial, advertising, technical and book illustration, 3D modeling and texturing, animation, set design, and product design.

Requirements for Certificate		18 Units
ART 300	Drawing and Composition I	3
ART 304	Figure Drawing I	3
ARTNM 324	Digital Design	3
ARTNM 326	Digital Painting	3
ARTNM 328	Beginning Digital Photo Imagery	3
ARTNM 370	Introduction to Illustration (3)	3
or ART 314	Introduction to Illustration (3)	3

3D Animation Certificate

Major Code: 011484C01

This certificate focuses on traditional animation principles to create believable animations. Animations created range from flying logos for broadcast television, to animated product placement, to characters used for the telling of fantastic stories. It focuses on skill sets in both the traditional arts and digital environments.

Student Learning Outcomes

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

- research and demonstrate application of the principles of animation to tell a story with meaning through movement.
- create the motions, gestures, and expressions of three-dimensional computer graphics characters and objects.
- critique animation and regularly improve upon demonstration reels.
- create high quality 3D models from live or image reference, and animate the models for use in demonstration reels.
- create a portfolio quality 3D animation demonstration reel.
- create animation from live reference, video reference, and from hand drawn imagery.
- create animation in various 2D and 3D software programs and apply the principles regardless of the software differences.
- block in movements in rough animation and show for the approval in a weekly review.
- finish work for approval in a timely manner.

Career Opportunities

Students can apply their 3D animation skills in film, game, and broadcast, as well as local industries, such as medical, legal, engineering, Web, fine art, and entrepreneurial. Students can continue their studies in 3D animation at a four-year college or choose an entry level position in any of the 3D animation industries.

See losrios.edu/gainful-emp-info/gedt.php?major=011484C01 for Gainful Employment Disclosure.

Requirements for Certificate		18 Units
ART 300	Drawing and Composition I	3
ARTNM 373	Storyboarding	3
ARTNM 405	Digital 2D Animation	3
ARTNM 422	3D Animation	3
A minimum of 3 units from the following:		3
ART 306	Facial Expression and Anatomy (3)	
or ARTNM 320	Facial Expression and Anatomy (3)	
ART 317	Character Design (3)	
or ARTNM 372	Character Design (3)	
A minimum of 3 units from the following:		3
ARTNM 431	3D Short Production (3)	
WEXP 498	Work Experience in (Subject) (1 - 4)	

3D Modeling and Texturing Certificate

Major Code: 011483C01

This certificate combines a foundation of traditional sculpture and painting with computer generated three dimensional digital modeling and painting. High polygon modeling techniques are used to create assets for any industry in need of 3D modeling and texturing. Texturing will focus primarily on the use of manipulated and painted imagery to create complex surfaces.

Student Learning Outcomes

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

- create complex 3D environments, characters, and props to be used in the any production.
- create believable models of objects from life, photographs, or hand drawn reference.
- create accurate models of the human anatomy with a clear and clean polygon flow showing muscle, fat, skin, and bone topology.
- create believable textures from reference images.
- analyze and assess the needs of a project and determine the complexity of the models and textures to match the project.
- create clean, high polygon count, polygon meshes ready for production.
- create facial structures and shape targets preparing the character for facial animation.
- create a portfolio quality modeling and texturing demonstration reel.

Career Opportunities

Students can continue their studies in 3D modeling and texturing at a four year college or choose to apply their 3D modeling and texturing skills in the film, game, and broadcast industries, as well as other local industries, such as medical, legal, engineering, Web, and fine art.

Requirements for Certificate	18 Units
ART 375 Figure Sculpture.....	3
ARTNM 420 Introduction to 3D Modeling.....	3
ARTNM 421 3D Character Modeling.....	3
ARTNM 423 3D Texturing.....	3
A minimum of 3 units from the following:	3
ARTNM 320 Facial Expression and Anatomy (3)	
or ART 306 Facial Expression and Anatomy (3)	
ARTNM 372 Character Design (3)	
or ART 317 Character Design (3)	
A minimum of 3 units from the following:	3
ARTNM 431 3D Short Production (3)	
WEXP 498 Work Experience in (Subject) (1 - 4)	

3D Rigging Technical Director Certificate

Major Code: 011494C01

This certificate offers training on the articulation of movement for 3D objects, environments, and characters. Rigging is the process of giving a character controls for movement, therein "articulating" its range of motion, or bringing the character to life. Standard rigs for vehicles, bipedal, and quadrupedal characters are created, as well as rig variations, such as cartoon rigs to maximize flexibility. In addition, students are expected to increase efficiency of production by creating rig building tools. Also, interfacing tools are created to increase efficiency and usability of the rigs in production.

Student Learning Outcomes

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

- differentiate the types of deformers to achieve a specific deformation called for by animation.
- create a concise set of animation controls.
- analyze the animator's needs to provide and refine an articulation of the full range of expressions and body movement needed to support a character's acting range.
- create a portfolio quality demonstration reel of their rigs animated.
- proficiently use a programming language to solve rigging problems, create new tools, and create interfacing tools for the animator.
- proficiently use math to solve rigging problems.
- design and maintain master rigs that can be re-used as a basis for articulating similar characters, or applying existing rigs to newly created character sculpts.
- differentiate the deformation needs of realistic musculature and traditional cartoon movement.

Career Opportunities

Students can apply their 3D rigging skills in film, game, and broadcast, as well as local industries, such as medical, legal, engineering, Web, and fine art. Students can continue their studies in 3D rigging at a four-year college or choose an entry-level position in any of the 3D animation industries.

Requirements for Certificate	21 Units
ARTNM 420 Introduction to 3D Modeling.....	3
ARTNM 429 3D Rigging and Rig Building.....	3
CISC 323 Linux Operating System.....	1
CISP 300 Algorithm Design/Problem Solving.....	3
MATH 372 College Algebra for Calculus.....	4
MATH 373 Trigonometry for Calculus.....	4
A minimum of 3 units from the following:	3
ARTNM 431 3D Short Production (3)	
or WEXP 498 Work Experience in (Subject) (1 - 4)	

3D Technical Director Certificate

Major Code: 011496C01

This certificate offers a comprehensive understanding of the computer generated three-dimensional (CG 3D) production process. It is designed for self-learners, entrepreneurs, and developers of independent content or someone looking for a high level position in a 3D animation company. A broad range of topics are covered from traditional sculpting to digital rendering. In addition to technical direction, this certificate is ideal for any 3D Generalist position.

Student Learning Outcomes

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

- plan a production pipeline and solve 3D production issues with a holistic understanding of 3D.
- create portfolio quality demonstration reels with animation, modeling, texturing, and rigging.
- differentiate various 3D software strengths and weaknesses.
- apply for an entry-level 3D position calling for a 3D Technical Director or 3D Generalist.
- create digital textures and materials from observing and scanning real-world surfaces and materials.
- apply textures and materials to a computer-generated environment.

Career Opportunities

Students can apply 3D skills in film, game, and broadcast, as well as local industries, such as medical, legal, engineering, Web, and fine art. Students can continue their studies in 3D at a four-year college or choose an entry-level position in any of the 3D animation industries.

Requirements for Certificate		30 Units
ART 300	Drawing and Composition I	3
ARTNM 320	Facial Expression and Anatomy (3)	3
or ARTNM 372	Character Design (3)	
ARTNM 420	Introduction to 3D Modeling	3
CISP 300	Algorithm Design/Problem Solving	3
MATH 330	Trigonometry	3
A minimum of 6 units from the following:		6
ART 304	Figure Drawing I (3)	
ART 320	Design: Fundamentals (3)	
ART 370	Three Dimensional Design (3)	
ART 376	Functional Sculpture (3)	
ARTNM 373	Storyboarding (3)	
A minimum of 9 units from the following:		9
ARTNM 421	3D Character Modeling (3)	
ARTNM 422	3D Animation (3)	
ARTNM 423	3D Texturing (3)	
ARTNM 429	3D Rigging and Rig Building (3)	
ARTNM 431	3D Short Production (3)	
WEXP 498	Work Experience in (Subject) (1 - 4)	

Graphic Design: Intern Artist Certificate

Major Code: 011398C01

This certificate introduces the software and theory used by graphic designers in the design studio. It covers page layout, vector drawing, and photo manipulation basics. It also focuses on current industry trends in the digital marketplace.

Student Learning Outcomes

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

- assess typographic hierarchy as it relates to message development.
- build digital files to specs required by the current industry.
- integrate different software files into one digital file.
- resolve digital production issues as they relate to industry standards.
- correlate deadline issues as they relate to production schedules.

Career Opportunities

Students can apply their acquired skills for internship positions in graphic arts related jobs such as entry-level design positions, entry-level in-house design positions, and production artist positions. Or, with additional coursework, students can continue their studies at a qualified four-year college.

Requirements for Certificate		21 Units
ARTNM 303	Graphic Design: Typography	3
ARTNM 324	Digital Design	3
ARTNM 328	Beginning Digital Photo Imagery	3
ARTNM 352	Design for Publication	3
ARTNM 359	College Magazine: Design and Production	3
ARTNM 401	Introduction to Web Design	3
ARTNM 402	Intermediate Web Design	3

Graphic Design: Junior Artist Certificate

Major Code: 011392C02

This certificate introduces software applications, industry-standard hardware, and the typographic/fundamental and technical skills necessary for today's workplace. It focuses on visual communication through layout design, typography, and the dynamic relationship between image and type. It meets current marketplace demands by incorporating print/non-print media and the effect new technologies have on a changing communications field.

Student Learning Outcomes

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

- analyze and formulate visual communication concepts using graphic design principles and standards.
- evaluate the role of typography as a communication device and know how the graphic design field fits into today's multimedia environment.
- design and produce two-dimensional media projects taking into account client needs, composition, color, and hierarchy of information.
- construct camera-ready art with industry standard graphic design software.
- evaluate problems generated by clients and execute visual concepts through research, thumbnails, roughs, design development and presentation.
- prioritize design and production deadlines for a deadline oriented industry.

Career Opportunities

Students can apply their acquired skills in typography, software and concept development to apply for production artist or junior graphic designer positions.

See losrios.edu/gainful-emp-info/gedt.php?major=011392C02 for Gainful Employment Disclosure.

Requirements for Certificate		30 Units
ARTNM 303	Graphic Design: Typography	3
ARTNM 305	History of Graphic Design	3
ARTNM 324	Digital Design	3
ARTNM 325	Intermediate Digital Design	3
ARTNM 328	Beginning Digital Photo Imagery	3
ARTNM 330	Intermediate Digital Photo Imagery	3
ARTNM 352	Design for Publication	3
ARTNM 354	Digital Prepress	3
ARTNM 359	College Magazine: Design and Production	3
A minimum of 3 units from the following:		3
ARTNM 356	Advanced Projects In Graphic Design	3
WEXP 498	Work Experience in (Subject)	1 - 4

Graphic Design: Production Artist Certificate

Major Code: 011399C01

This certificate covers the process of digital production for printing and web. It focuses on the core software programs and current industry trends for digital media.

Student Learning Outcomes

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

- investigate the basics of digital software for vector- and pixel-based media
- analyze specific conditions which influence digital production decisions
- categorize raster-based images and vector-based art as they relate to print and web
- calculate resolution, color modes and file size as they relate to print and web production
- construct a series of projects which build knowledge of simple and complex production issues

Career Opportunities

This certificate prepares students for entry-level print or web production artist positions.

Requirements for Certificate		18 Units
ARTNM 324	Digital Design	3
ARTNM 328	Beginning Digital Photo Imagery	3
ARTNM 352	Design for Publication	3
ARTNM 354	Digital Prepress	3
ARTNM 359	College Magazine: Design and Production	3
ARTNM 401	Introduction to Web Design	3

Illustration Certificate

Major Code: 011393C01

This certificate focuses on using traditional visual art principles to clearly communicate the needs of a client and/or target a specific audience. It includes skill sets from both the traditional arts and digital media. Illustration skills are applied in animation, character design, 3D modeling and texturing, set design, product design, as well as areas of editorial, advertising, technical, and book illustration.

Student Learning Outcomes

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

- create drawn and painted objects and the human figure from direct observation
- research and develop visual content with an understanding of the target audience
- develop and produce visual solutions that meet the needs of a client within a deadline
- analyze and apply effective color schemes to enhance the viewer's emotional response to the content of an illustration
- research modern art and illustration history, applying concepts to illustrations to effectively communicate visually within contemporary culture
- create a portfolio that demonstrates skill with traditional and digital media and concept development

Career Opportunities

Career opportunities include animation, character design, 3D modeling and texturing, set design, product design, as well as areas of editorial, advertising, technical, and book illustration.

See losrios.edu/gainful-emp-info/gedt.php?major=011393C01 for Gainful Employment Disclosure.

Requirements for Certificate		30 Units
ART 300	Drawing and Composition I	3
ART 304	Figure Drawing I	3
ART 323	Design: Color Theory	3
ART 327	Painting I (3)	3
or ART 336	Watercolor Painting (3)	
ARTH 310	Modern Art	3
ART 320	Design: Fundamentals	3
ARTNM 320	Facial Expression and Anatomy (3)	3
or ART 306	Facial Expression and Anatomy (3)	
ARTNM 324	Digital Design	3
ARTNM 326	Digital Painting	3
ARTNM 370	Introduction to Illustration (3)	3
or ART 314	Introduction to Illustration (3)	

Web Design Certificate

Major Code: 011395C01

The Web Design certificate incorporates the fundamentals of visual communication with industry-standard work flow and tools to prepare creatives and talents for the web design industry. The certificate focuses on the visual language necessary for a web designer to produce compelling graphics in the web authoring environment. Students are encouraged to further their studies in interactive design by obtaining other Art New Media Certificates such as the Interactive Design Certificate, the Digital Imagery Certificate and the Video Certificate within the Art New Media department, or similar programs at a four-year college, or encouraged to choose an entry-level position in the web design industry.

Student Learning Outcomes

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

- produce compelling graphics incorporating industry-standard work flow and tools
- design visually successful web pages/web sites using visual design concepts
- evaluate content needs for target audience
- assess the most effective navigation flow
- conceive and deliver visual solutions for a client within a defined time frame

Career Opportunities

Web design skills are used in business, government, educational institutions, and the entertainment industry.

See losrios.edu/gainful-emp-info/gedt.php?major=011395C01 for Gainful Employment Disclosure.

Requirements for Certificate		27 Units
Semester 1:		
ARTNM 303	Graphic Design: Typography	3
ARTNM 324	Digital Design	3
ARTNM 328	Beginning Digital Photo Imagery	3
Semester 2:		
ARTNM 325	Intermediate Digital Design	3
ARTNM 330	Intermediate Digital Photo Imagery	3
ARTNM 401	Introduction to Web Design	3
Semester 3:		
ARTNM 331	Integrating Digital Media with Traditional Media I	3
ARTNM 332	Digital Video	3
ARTNM 402	Intermediate Web Design	3

Technical Communications Degree

Major Code: 011222A01

This is an interdisciplinary course of study designed to prepare students for employment as professional writers and communicators in a variety of media intended to instruct and inform audiences. The degree program includes substantial course work in writing, information design, editing, page design, online help development, web site creation, and the use of industry standard applications.

Student Learning Outcomes

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

- analyze audience information needs and propose solutions to aid the audience.
- design technical communication solutions for a variety of industry and government purposes.
- design and create web sites and help systems with effective visual design, navigation, and written content.
- design and publish printed pages with effective design, organization, content, and indexing.
- compose professional prose for a variety of audiences with a variety of purposes.
- compose and edit professional documents in grammatically correct, concise English.
- create and use style templates in a variety of industry standard software.

Career Opportunities

Technical communicators may be employed in a variety of occupations in government, scientific firms, nonprofits, natural resources, finance, education, and high tech.

Requirements for Degree	36.5 Units
BUS 100 English for the Professional	3
CISA 305 Beginning Word Processing	2
CISW 300 Web Publishing.....	3
JOUR 300 Newswriting and Reporting.....	3
TECCOM 300 Introduction to Technical/Professional Communication.....	3
TECCOM 310 Technical/Professional Communication: Writing Reports.....	3
TECCOM 320 Technical/Professional Communication: Proposal Writing	3
TECCOM 330 Technical/Professional Communication: Writing Technical Manuals.....	3
TECCOM 340 Technical/Professional Communication: Developing Help Systems	1.5
And a minimum of 12 units from the following:	12
ARTNM 328 Beginning Digital Photo Imagery (3)	
ARTNM 330 Intermediate Digital Photo Imagery (3)	
ARTNM 352 Design for Publication (3)	
CISA 331 Intermediate Desktop Publishing (2)	
CISW 310 Advanced Web Publishing (4)	
CISW 321 Web Site Development using Dreamweaver (3)	
CISW 400 Client-side Web Scripting (4)	
CISW 410 Middleware Web Scripting (4)	
ENGWR 301 College Composition and Literature (3)	

Associate Degree Requirements: The Technical Communications Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Technical Communications Certificate

Major Code: 011222C01

The Technical Communications certificate offers an interdisciplinary program of courses in writing, Art/New Media, and Computer Information Systems to prepare students for a variety of technical writing and professional communication careers. The certificate includes the theory, writing skills, design background, and computer applications knowledge needed for jobs in technical communication.

Student Learning Outcomes

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

- analyze audience information needs.
- compose concise, clearly written professional documents organized with the audiences' needs in mind.
- design printed pages and online screens that communicate organizations' values, enhance readability, and are easy to use.
- demonstrate basic skills in the use of key word processing, page design, help development, and web design applications.
- evaluate organizations' communication goals with technical writing ethics in mind.

Career Opportunities

Technical communicators find employment in medical, scientific, high tech, business, university, and government settings. They may write white papers, tutorials, reference and procedure manuals, help systems, user assistance video scripts, grants and proposals, and more.

See losrios.edu/gainful-emp-info/gedt.php?major=011222C01 for Gainful Employment Disclosure.

Requirements for Certificate	21.5-22.5 Units
ARTNM 352 Design for Publication (3).....	3- 4
or CISA 330 Desktop Publishing (2)	
and CISA 331 Intermediate Desktop Publishing (2)	
CISA 305 Beginning Word Processing	2
CISW 300 Web Publishing.....	3
TECCOM 300 Introduction to Technical/Professional Communication.....	3
TECCOM 330 Technical/Professional Communication: Writing Technical Manuals	3
TECCOM 340 Technical/Professional Communication: Developing Help Systems	1.5
And a minimum of 6 units from the following:	6
BUS 100 English for the Professional (3)	
CISW 321 Web Site Development using Dreamweaver (3)	
CISW 400 Client-side Web Scripting (4)	
CISW 410 Middleware Web Scripting (4)	
TECCOM 310 Technical/Professional Communication: Writing Reports (3)	
TECCOM 320 Technical/Professional Communication: Proposal Writing (3)	

DEPARTMENT CERTIFICATE

Foundation Certificate

This entry level certificate introduces the tools and context fundamental for the field of digital media.

Student Learning Outcomes

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

- construct visual composition using design fundamentals.
- construct visual composition using typography principles.
- integrate traditional media and digital media.
- construct composition based on the history of graphic design.
- create basic digital composition using industry-standard tools.

Career Opportunities

This program prepares students to apply their knowledge and experiences in many industries that require basic digital design skills. These positions include internship and entry-level visual communication opportunities within industries such as design, arts, entertainment, business, and education.

Requirements for Certificate	10.5 Units
ARTNM 302 Digital Basics for Art New Media.....	1.5
ARTNM 303 Graphic Design: Typography.....	3
ARTNM 305 History of Graphic Design.....	3
ARTNM 331 Media Studio I: Pigment-Based Media.....	3

Art New Media

ARTNM 302 Digital Basics for Art New Media 1.5 Units

Course Transferable to CSU

Hours: 18 hours LEC; 27 hours LAB

This course is an introduction to the digital environment for Art New Media. Topics include operating system(s), digital vocabulary, scanning, saving, and file formats. Distinctions between vector, bitmap, and page layout applications are made using Adobe Illustrator, Adobe Photoshop, and Adobe InDesign.

ARTNM 303 Graphic Design: Typography 3 Units

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course covers the art of visual communication and introduces the tools and concepts of visual thinking. It emphasizes the potential of typography as an effective communications tool. Additionally, it also covers historical overviews, portfolio development, and client presentations, paired with the terminology and visual language of design through the creation and evaluation of individual projects.

ARTNM 305 History of Graphic Design 3 Units

General Education: AA/AS Area I; CSU Area C1

Course Transferable to UC/CSU

Hours: 54 hours LEC

This course covers the history of visual communications as developed by ancient cultures through the present with an emphasis on commercial design, illustration, typographic development, and technological invention. It includes modern graphic design movements of the 20th century through the expansive media innovations of today. This course focuses primarily on analysis of design from a wide range of sources and cultures.

ARTNM 320 Facial Expression and Anatomy 3 Units

Same As: ART 306

Prerequisite: ART 300 with a grade of "C" or better

Advisory: ART 304

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course covers human facial expression and anatomy using live models, anatomical references, and imagination. Issues of expression as it relates to skeletal and muscular anatomy are addressed through a series of projects. This course is not open to students who have taken ART 306.

ARTNM 322 Beginning Digital Art 3 Units

General Education: AA/AS Area I

Course Transferable to UC/CSU

Hours: 36 hours LEC; 54 hours LAB

This introductory digital art course focuses on digital media processes, including software and hardware tools that facilitate creative visual and conceptual approaches to digital art making. A wide range of digital imaging techniques are explored, and time-based processes are introduced, leading to the creation of digital images, animations/videos, and mixed media objects. The course also explores artists' uses of new technologies in contemporary art-making practices. A vocabulary of new media terms and practices is developed through discussions and critiques. (C-ID ARTS 250)

ARTNM 324 Digital Design 3 Units

Advisory: ARTNM 303; Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340; AND ART 300 OR ART 320 and ARTNM 302

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course is an introduction to fundamental design principles using the basic tools of Adobe Illustrator. It applies design skills and the tools of the software application to produce individual portfolio-quality projects.

ARTNM 325 Intermediate Digital Design 3 Units

Prerequisite: ARTNM 324 with a grade of "C" or better

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course is a continuation of ARTNM 324. It defines advanced elements of graphic design, composition, and gestalt visual principles as they relate to dominance, hierarchy, balance, and color. These topics are combined and applied to the tools and advanced imaging capabilities of Adobe Illustrator.

ARTNM 326 Digital Painting 3 Units

Advisory: ART 300 and ARTNM 302

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course introduces the fundamental principles of color, drawing, and painting using the basic tools of Corel Painter. Visual communication skills of color, drawing, and painting are applied to produce individual portfolio-quality projects.

ARTNM 328 Beginning Digital Photo Imagery 3 Units

Advisory: ART 300 and ARTNM 302

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course is an introduction to computer-based photographic imaging with emphasis on utilizing cutting edge digital imaging tools to realize design objects. Basic operating principles of Adobe Photoshop are covered. Topics include scanning, basic photo correction, selections, layer basics, adjustment layers, basic masking and channels, typography, vector drawings, and compositing. Design fundamentals are discussed. Topics include positive and negative space relationship, unity, balance, and basic color theory. Concept development is also introduced.

ARTNM 330 Intermediate Digital Photo Imagery 3 Units

Prerequisite: ARTNM 328 with a grade of "C" or better

Course Transferable to UC/CSU

Hours: 36 hours LEC; 54 hours LAB

This course introduces the intermediate techniques of digital photo imagery in Adobe Photoshop. Topics include the terminology of digital photo imaging, intermediate masking, channel and curve techniques, photomontage history and techniques, intermediate black and white techniques, issues surrounding dynamic range, color correction, features of the Action and History palettes, exploration of Layer Blending Modes, printing and/or transferring images onto various different media, working with large format images, and commercial printers.

ARTNM 331 Integrating Digital Media with Traditional Media I 3 Units

Same As: ART 339

General Education: AA/AS Area I

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course combines the materials and techniques used in both new media technology and traditional art practices. It explores a wide variety of ideas, tools, and resources. Topics include history, theory, and practice surrounding digital and traditional image generation, image manipulation, image transfer, and material exploration. The course emphasizes developing unique forms of portfolio quality projects demonstrating new approaches and methods of integrating digital media with traditional media forms. This course is not available to students who have taken ART 339.

ARTNM 332 Digital Video 3 Units

Advisory: ARTNM 302

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course applies the principles of cinematography and editing to the production of digital video. Industry standard software is employed to capture/import, edit, and produce high-end visual productions. The course includes transitions, multiple layers, alpha channels, and composite green screen segments. Evaluation of multimedia projects containing video segments in terms of design aesthetics and technical competence is included. This course examines the genres of documentary, short narrative film, title sequencing, and experimental film.

ARTNM 352 Design for Publication 3 Units

Advisory: ART 320 or ARTNM 310 AND ARTNM 302.

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course introduces the basic operating principles of digital page layout software using Adobe InDesign. Principles of typography and the development of the printed page are applied to individual portfolio-quality projects. Areas of focus include book, magazine, and newspaper design, as well as publications such as newsletters, journals, and catalogs. An overview of promotionals, such as fliers, posters, and brochures is also included.

ARTNM 354 Digital Prepress 3 Units

Prerequisite: ARTNM 352 with a grade of "C" or better

Advisory: ARTNM 302 AND ENGWR 102 and ENGRD 116 OR ESLR 320 and ESLW 320

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course introduces digital prepress for graphic design using industry standard software, like Adobe InDesign. Areas of focus include desktop production for commercial offset printing, preparation of print-ready digital files, paper selection, and the language necessary to properly communicate with commercial printers. Field trips may be required.

ARTNM 356 Advanced Projects In Graphic Design 3 Units

Prerequisite: ARTNM 352 and 359 with grades of "C" or better

Advisory: ARTNM 324 and 328 with grades of "C" or better

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course covers the basic techniques and approaches used by graphic design studios as they relate to concept development, branding, and target audience assessment. Emphasis is placed on project analysis, research, and presentation. Projects are produced through the integration of industry standard graphics software used for print production, vector based graphics, and digital imaging. A portfolio of professional level projects is developed and presented. Field trips are required.

ARTNM 358 College Magazine: Art Selection and Editing 1-2 Units

Advisory: ARTH 300 and ARTNM 302

Course Transferable to CSU

Hours: 12-24 hours LEC; 18-36 hours LAB

This course provides instruction in the editing of ARC's college magazine, the American River Review, for national competitions sponsored by organizations such as the Columbia Scholastic Press Association and the Associated Collegiate Press. The course focuses on the implementation of a submission process for art work including art handling, tracking of submissions, photography for print and evaluation of submissions. It may be taken four times for credit. A portion of this course may be offered in a TBA component of 6-20 hours which may include photographing 2D and 3D artwork, scanning or photographing photographic artwork, downloading or scanning digital submissions, and production organization such as reformatting and naming files, organizing files into media groups for evaluation.

ARTNM 359 College Magazine: Design and Production 3 Units

Advisory: ARTNM 302, 324, 328, 352, or 354

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course provides instruction in the design and production of ARC's college magazine, the American River Review, for national competitions sponsored by organizations such as the Columbia Scholastic Press Association and the Associated Collegiate Press. The course focuses on the graphic design, digital production, and printing of a literary and fine art magazine as well as the publicity, marketing, fund-raising, and distribution of the magazine. It provides the design staff a collaborative experience with the editorial staff taught by the English Department. It may be taken four times for credit.

ARTNM 370 Introduction to Illustration**3 Units***Same As: ART 314**Prerequisite: ART 300 with a grade of "C" or better**Course Transferable to CSU**Hours: 36 hours LEC; 54 hours LAB*

This course is a survey of the history of illustration, defining areas of specialization and the illustrator's role in visual communication. The appropriate use of materials, tools and methods is evaluated. Illustration is analyzed as a method of visual problem solving through a series of projects with varied applications. This course is not open to students who have taken ART 314.

ARTNM 372 Character Design**3 Units***Course Family: Applied Drawing**(see page 38 - limitation on active participatory courses)**Same As: ART 317**Prerequisite: ART 302 with a grade of "C" or better**Advisory: ART 304 and ARTNM 302**Course Transferable to CSU**Hours: 36 hours LEC; 54 hours LAB*

This course introduces the visual development of characters based on archetypal patterns. Students will consider backstory, personality, and physical attributes. Fundamental drawing skills such as shape, form, anatomical structure, and motion will be included. Both digital and traditional media are applied. It also covers the graphical development of characters for animation, games, comics, graphic novels, children's books, and illustrated novels. It is not open to students who have completed ART 317.

ARTNM 373 Storyboarding**3 Units***Prerequisite: ART 300 with a grade of "C" or better**Advisory: ARTNM 372 with a grade of "C" or better**Course Transferable to CSU**Hours: 36 hours LEC; 54 hours LAB*

This course introduces the storyboarding process for a range of industries, from film and game entertainment to the industrial and medical industries. It includes creating artwork for the visual interpretation of scripts and provided concepts, as well as developing original ideas. In addition, conceptual exercises, drawing practice, and the use of cinematic rules used in the industry are covered. Topics also include scale and camera angle, camera movement, character staging, composition, basic editing processes, creating animatics, and story reels.

ARTNM 401 Introduction to Web Design**3 Units***Advisory: ARTNM 303, 324, and 328**Course Transferable to CSU**Hours: 36 hours LEC; 54 hours LAB*

This course introduces technical and conceptual aspects of creating interactive visual media for screen-based delivery. It concentrates on designing standards-based web sites and applying standardized best practices to web design. This course introduces the basics of layout for visual communication by tightly integrating the design concepts with technical execution in a web environment. It also applies industry-standard authoring tools, and closely examines the meaning and validity of interactivity. Meaning and validity of interactivity are closely examined.

ARTNM 402 Intermediate Web Design**3 Units***Prerequisite: ARTNM 401 with a grade of "C" or better, or placement through the assessment process.**Course Transferable to CSU**Hours: 36 hours LEC; 54 hours LAB*

This course covers production and intermediate design processes for the web with an emphasis on visual design. It employs various industry standard software applications to create original graphics, control layout and type, process images, and publish professional web pages and/or sites. Topics include an in-depth discussion on the processes and the strategies of combining text, images, animation, video, and audio elements to create compelling visual experiences for web users.

ARTNM 404 Interactive Basics**3 Units***Advisory: ARTNM 328, ARTNM 401, or CISW 300**Course Transferable to CSU**Hours: 36 hours LEC; 54 hours LAB*

This course introduces the design and delivery of rich interactive content suitable for graphical experiences across personal computers, mobile devices, and screens. Topics include generating interactivity between vector-based graphics, animation, integration of digital audio, raster graphics, and digital video. Industry standard workflow from image authoring to interactive authoring is discussed in detail. Visual design principles and interface design concepts are integrated into the making of portfolio-quality projects.

ARTNM 405 Digital 2D Animation**3 Units***Advisory: ART 300 and ARTNM 302**Course Transferable to CSU**Hours: 36 hours LEC; 54 hours LAB*

This course provides techniques for using the traditional principles of animation with industry-standard software. Topics include animating a bouncing ball, ball with a tail, ball with legs, full body bipedal, and a face synchronized to audio. Character animation topics involve locomotion, such as walking and jumping, using the traditional principles. Technical issues, such as frame-by-frame animation (cell animation), rotoscoping, interpolated or f-curve animation, are discussed and applied. Projects can be published on the Web, CD-Rom, DVD, and video.

ARTNM 406 Design for Tablets**3 Units***Advisory: ARTNM 330, 352, and 402**Course Transferable to CSU**Hours: 36 hours LEC; 54 hours LAB*

This course introduces production and design processes of tablet-based media. Various industry standard software applications are employed to create compatible websites, digital documents, PDF presentations, and ePub creations. Topics include the processes and the strategies of combining text, images, animation, video, and audio elements to create compelling visual experiences for tablet-oriented mobile media.

ARTNM 420 Introduction to 3D Modeling**3 Units***Advisory: ART 320, ART 370, ARTNM 302,**ARTNM 310, or ARTNM 370**Course Transferable to CSU**Hours: 36 hours LEC; 54 hours LAB*

This course introduces computer-generated three-dimensional, or CG 3D, modeling using industry standard software. The primary focus of this course is modeling using polygons, surfaces, and curves to produce quality demo reel renders of the models. Objects range from simplistic primitive shapes to sophisticated models of animals and plants. Software application tools, such as Autodesk Maya and Pixologic Zbrush, are applied to produce content for use in 3D printing, film, game, fine art, broadcast, medical and industrial animation, and more.

ARTNM 421 3D Character Modeling 3 Units

Prerequisite: ARTNM 420 with a grade of “C” or better

Advisory: ART 375

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course is a continuation of ARTNM 420. Industry techniques and issues related to humanoid character modeling are analyzed and applied. Industry issues, such as the topology flow of human anatomy, facial blend targets, and joint correction, are developed. Clothing, hair, and accessories are added to the characters, strictly following concept designs.

ARTNM 422 3D Animation 3 Units

Prerequisite: ARTNM 405 with a grade of “C” or better

Advisory: ART 375, DANCE 390, or TAP 300

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course provides 3D animation techniques using industry standard software. It covers the traditional principles from the golden years of Disney Studios as they are applied and translated to the computer-generated 3D (CG 3D) environment, and also to characters that walk, breathe, and act according to the twelve principles of animation. Topics also include weight, thought process, and the wave principle. Technical issues, such as walking along an uneven ground, importing and blending MoCap data, and locomotion around obstacles, are addressed.

ARTNM 423 3D Texturing 3 Units

Prerequisite: ARTNM 420 with a grade of “C” or better

Advisory: ARTNM 328, ARTPH 300, and ARTPH 305

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course provides texturing techniques, or image mapping, using industry standard software, such as Adobe Photoshop, Pixologic Zbrush, and Autodesk Maya. Topics include photo-manipulation, unwrapping and painting hard-surface and sub-division surface models and creating a texture library. Environment and character-texture maps are created using image-mapping techniques.

ARTNM 429 3D Rigging and Rig Building 3 Units

Prerequisite: ARTNM 420 with a grade of “C” or better

Advisory: ARTNM 421 and 422

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course provides skills for the articulation of computer-generated three-dimensional, or CG 3D, objects. Projects include the creation of rigs for inanimate objects with the intent to animate, and the creation of a full body rig for bipedal and quadrupedal characters. Scripting languages and rig building tools are utilized to expedite the rigging process. 3D production issues, such as interfaces for animators, are addressed.

ARTNM 431 3D Short Production 3 Units

Prerequisite: ARTNM 420 or 422 with a grade of “C” or better

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course surveys and practices the pipeline of computer generated three dimensional (CG 3D) imagery based on real world short production scenarios; productions that are three minutes or less. The essential skills needed to survive in the Sacramento Valley CG 3D markets are covered. Areas of focus include a variety of real world short production scenarios, such as court room scene reenactment, work-at-home online markets, small business CG 3D logo, as well as visualization projects in the medical, invention, architectural, and landscaping fields.

ARTNM 450 Portfolio for Art New Media 3 Units

Prerequisite: Completion of 9 units from one Art New Media Certificate with a grade of “C” or better

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

The course provides essential skills, strategies and processes involved in organizing, selecting, writing and marketing one’s creative work. Topics include file organization, file accessibility and backup, research techniques, target identification, resume building, letter of interest, portfolio construction, building resumes, interview techniques, interview body language, job research, and portfolio presentation. The portfolio can be tailored for application for jobs in the creative industry, transfer to 4-year art or graphics programs, graduate schools, gallery exhibitions, artist residencies, scholarships and artist grants.

ARTNM 495 Independent Studies in Art New Media 1-3 Units

Course Transferable to CSU

Hours: 54-162 hours LAB

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

ARTNM 498 Work Experience in Art New Media 1-4 Units

Advisory: Eligible for ENGRD 310 or ENGRD 312 A ND ENGLWR 300; OR ESLR 340 AND ESLW 340.

Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to art new media with a cooperating site supervisor. Students are advised to consult with the Art New Media Department faculty to review specific certificate and degree work experience requirements

General Education: AA/AS Area III(b)

Course Transferable to CSU

Hours: 60-300 hours LAB

This course provides students with opportunities to develop marketable skills in preparation for employment or advancement within the field of art new media. It is designed for students interested in work experience and/or internships in transfer-level degree occupational programs. Course content includes understanding the application of education to the workforce, completion of Title 5 required forms which document the student’s progress and hours spent at the work site, and developing workplace skills and competencies. During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class meeting, a mid-semester meeting, and a final meeting. Additionally, students who have not already successfully completed a Work Experience course will be required to attend weekly orientations while returning participants may meet individually with the instructor as needed. Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.