

COMPUTER ANIMATION AND GAME DEVELOPMENT

Computer Animation and Game Development Program (<http://www.csuchico.edu/cagd/>)

O'Connell Center 236

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Program Director: Clarke Steinback

Insight

Do you want to make video games or animations? Do you want to be a 3D animator, video game producer, 3D modeler, texturing specialist, VFX designer, game designer, game programmer, or motion capture expert? Do you want to make the most of your creativity? If so, Computer Animation and Game Development can help you develop in-demand skills for the video game and entertainment industries. Computer Animation and Game Development is the synergy of creativity and technology and affords you an opportunity to put your imagination to work in this realm of collaborative teams creating multimedia experiences.

Founded in 1999, the Computer Animation and Game Development (CAGD) program seeks to teach the skills required for an innovative industry. For more than 20 years, the program has continued to evolve and grow to meet the needs of students seeking a career in a rapidly expanding creative industry. The CAGD program was ranked one of the top 10 game design programs in the nation in 2022 by Gizmodo. The CAGD program is run by a student-focused team that works together to combine design and technology as a means of expressing creative minds. With a strong foundation in teaching and industry experience, faculty prepare students to design and implement rich multimedia experiences that communicate, inform, and entertain.

Experience

The CAGD program focuses on hands-on collaborative experiences in a diverse community of students. Courses are designed to provide instruction in industry-standard tools and techniques as well as formal processes and pipelines of 3D animation, computer-generated imagery, and game production. A culminating experience in production studio courses see students work in teams to generate animations, video games, and 3D experiences in a real-world studio environment.

The Computer Graphics Club (CGC) is a student-run club that provides a place for aspiring creators to meet fellow creatives, discuss industry trends and ideas, and network with each other and alumni. The club holds regular meetings and social activities as well as hosts special events.

Outlook

With virtually limitless career possibilities, the CAGD program is proud to provide its students with skills including animation production, CGI, agile development, game scripting, augmented/virtual reality, motion capture, lidar scanning, and photogrammetry. Our diverse student population enters careers in the lucrative fields of video games, film, television, and commercials, as well as scientific research and a host of other enterprises.

Our alumni currently work across a wide variety of industry companies including 2K Games, Epic Games, Weta Digital, Sony Imageworks, Ubisoft,

Pixar, Blizzard, and more as part of the rapidly growing \$2.2 trillion global game and entertainment industry.

Programs

Undergraduate

Bachelor's

- Computer Animation and Game Development BS (<https://catalog.csuchico.edu/colleges-departments/college-communication-education/computer-animation-game-development/computer-animation-game-development-bs/>)

Minors

- Applied Computer Graphics Minor (<https://catalog.csuchico.edu/colleges-departments/college-communication-education/computer-animation-game-development/applied-computer-graphics-minor/>)
- Video Game Design Minor (<https://catalog.csuchico.edu/colleges-departments/college-communication-education/computer-animation-game-development/video-game-design-minor/>)

See Course Description Symbols and Terms (<https://catalog.csuchico.edu/academic-standards-policies/course-description-symbols-terms/>) for an explanation of course description terminology and symbols, the course numbering system, and course credit units.

CAGD 110 Computer-Assisted Art I

3 Units GE

Typically Offered: Fall and spring

This course provides an introduction to computer graphics and art. Students use the computer as a tool for creating static and animated images. Basic instruction in design and color relationships is provided. The writing component may include research reports from current graphics publications and/or attendance and discussion of art exhibitions. 4 hours activity, 1 hour discussion. (002287)

General Education: Arts (C1)

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 3 units

Course Attributes: Lower Division

CAGD 112 Virtual and Physical Cameras Applications

3 Units

Typically Offered: Fall and spring

This course is designed as an introduction to multiple software packages and applicable techniques to develop skills to create 3D assets based on real world environments and objects. We explore the practical uses of physical and virtual cameras, material and 3D scanning for asset creation, scene composition and digital lighting. 2 hours activity, 2 hours lecture. (015869)

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 3 units

Course Attributes: Lower Division; Laptop required

CAGD 117 Concept Design and Storyboarding

3 Units

Typically Offered: Fall and spring

An in-depth look into the pre-production process as it directly pertains to storyboard creation, character development and design, pre-visualization techniques, and principles of concept design. 2 hours activity, 2 hours lecture. (015870)

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 3 units

Course Attributes: Lower Division

- CAGD 170 Video Game Design** **3 Units**
Typically Offered: Fall and spring
 An introduction course to video game design, studying the art, technology, and science involved in the creation and development of video games. The course covers video game history, game theory, design of computer-based games, delivery systems, development cycle, case studies, ethical and social issues, and emerging technologies and trends. This course emphasizes the understanding and the interdisciplinary nature of video game design. This is not a computer programming course. 2 hours activity, 2 hours lecture. (020239)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Lower Division; Laptop required
- CAGD 180 Scripting and Programming for Computer Graphics** **3 Units**
Prerequisite: GE Critical Thinking (A3), GE Mathematics/Quantitative Reasoning (B4).
Typically Offered: Fall and spring
 This course introduces application scripting and programming to visual artists using scripting and programming environments embedded in applications and integrated graphical development environments. Fundamental scripting techniques for computer modeling, animation, video game and other visual media will be explored. Elementary application programs will be designed, implemented and tested. 2 hours activity, 2 hours lecture. (020648)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Lower Division
- CAGD 189 Industry Internship** **1-3 Units**
Typically Offered: Fall and spring
 0 hours supervision. (020125)
Grade Basis: Credit/No Credit
Repeatability: You may take this course for a maximum of 15 units
Course Attributes: Lower Division
- CAGD 198 Special Topics** **1-3 Units**
Prerequisite: Department permission.
Typically Offered: Fall and spring
 This course is for special topics offered for 1.0-3.0 units. Typically the topic is offered on a one-time-only basis and may vary from term to term and be different for different sections. See the Class Schedule for the specific topic being offered. 0 hours lecture. (020130)
Grade Basis: Graded
Repeatability: You may take this course more than once
Course Attributes: Lower Division
- CAGD 199 Special Problems** **1-3 Units**
Prerequisite: Faculty permission.
Typically Offered: Fall and spring
 This course is an independent study of special problems offered for 1.0-3.0 units. You must register directly with a supervising faculty member. 0 hours supervision. (020133)
Grade Basis: Credit/No Credit
Repeatability: You may take this course for a maximum of 6 units
Course Attributes: Lower Division
- CAGD 230 Digital Modeling** **3 Units**
Prerequisite: CAGD 112 with a grade of C- or higher.
Typically Offered: Fall and spring
 This course explores the basic concepts, principles, practices, tools and techniques of digital modeling, and production pipeline used primarily in CGI, games, and simulations. Topics include creating modifying, texturing, lighting, and rendering basic architectural and prop objects. Projects are designed to guide students through the process of designing digital objects and understanding how objects are imported and used in CGI, games, and simulations. Students produce digital models that demonstrate these concepts, principles, workflow, and technique. 2 hours activity, 2 hours discussion. (021443)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Lower Division; Laptop required
- CAGD 240 Digital Animation** **3 Units**
Prerequisite: CAGD 110 with a grade of C- or higher.
Typically Offered: Fall and spring
 This course explores the basic principles and techniques of motion such as in-betweening, timing, squash and stretch, and more. Students produce animated works that demonstrate these principles and techniques and that effectively communicate with the audience. 2 hours activity, 2 hours lecture. (020240)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Lower Division; Laptop required
- CAGD 250 Introduction to Technical CGI** **3 Units**
Prerequisite: CAGD 117 and CAGD 230 all with a grade of C- or higher.
Typically Offered: Fall and spring
 This course provides an introduction and technical foundation to tools and strategies used to develop both pre-visualized and final deliverables leading to effective visual communication as it relates to digital production in the game and animation industries. Emphasis is placed on the basics of compositing techniques and components of 3D pre-visualization. 2 hours activity, 2 hours lecture. (022151)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Lower Division; Laptop required
- CAGD 270 Level Design** **3 Units**
Prerequisite: CAGD 170 with a grade of C- or higher.
Typically Offered: Fall and spring
 This project-oriented course introduces the concepts and tools used in creating levels for games. Fundamental architectural theory, critical path, flow, pacing, dilemmas, balancing, difficulty level, playtesting, and storytelling relating to level design are studied. Existing game levels are studied and analyzed; original game levels are created using industry toolsets to meet game design objectives. Understanding how level design fits into the production pipeline and how to work in collaborative environments. 2 hours activity, 2 hours discussion. (021350)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Lower Division; Laptop required

<p>CAGD 280 Introduction to Game Scripting 3 Units Prerequisite: CAGD 180 or CSCI 111 all with a grade of C- or higher. Typically Offered: Fall and spring The course covers an introduction to game scripting concepts and will take the student through the process of creating prototypes and games using an industry-standard game engine. The course will explore using a game engine and associated scripting to maneuver characters around in 2D/3D space, develop interactive game environments, implement special effects, manipulate objects, script menus and graphical user interfaces, create non-player character behaviors, and much more. The student is required to have basic programming skills and game design experience from which the course will expand in using scripting and a game engine to create effective games. 2 hours activity, 2 hours lecture. (022150) Grade Basis: Graded Repeatability: You may take this course for a maximum of 3 units Course Attributes: Lower Division; Laptop required</p>	<p>CAGD 325 Motion Capture 3 Units Prerequisite: CAGD 230 with a grade of C- or higher. Typically Offered: Fall and spring This course provides students an understanding and a practical application of motion capture technology used for game, virtual reality (VR), film and simulations. It provides students with fundamental skills in the use and aesthetics of motion capture. Students gain practical experience in calibrating and operating a motion capture system, and in planning and implementing a motion capture shoot. Students also gain an overview of the broader context of motion capture such as its use in computer generated imagery (CGI), animation, game development, and interactive performance. 2 hours activity, 2 hours lecture. (021778) Grade Basis: Graded Repeatability: You may take this course for a maximum of 3 units Course Attributes: Upper Division; Laptop required</p>
<p>CAGD 289 Industry Internship 1-3 Units Typically Offered: Fall and spring 0 hours supervision. (020126) Grade Basis: Credit/No Credit Repeatability: You may take this course for a maximum of 15 units Course Attributes: Lower Division</p>	<p>CAGD 330 3-D Computer Modeling 3 Units Prerequisite: CAGD 320 with a grade of C- or higher. Typically Offered: Fall only This course uses 3-D modeling and animation software in developing 3-D computer models and creating presentations of those models in storytelling still scenes. The tools, techniques, and topics studied include basic and advanced 3-D modeling tools, 3-D scene layout, lighting, texturing, and rendering. 4 hours activity, 1 hour discussion. (002317) Grade Basis: Graded Repeatability: You may take this course for a maximum of 3 units Course Attributes: Upper Division; Laptop required</p>
<p>CAGD 298 Special Topics 1-3 Units Typically Offered: Fall and spring 0 hours lecture. (020131) Grade Basis: Graded Repeatability: You may take this course more than once Course Attributes: Lower Division</p>	<p>CAGD 331 3-D Character Modeling 3 Units Prerequisite: CAGD 330 with a grade of C- or higher. Typically Offered: Spring only A study of the necessary principles and techniques of creating digital 3-D characters. Students learn the necessary skills for modeling characters, creating effective anatomy, and rigging characters for animation purposes. 4 hours activity, 1 hour lecture. (020241) Grade Basis: Graded Repeatability: You may take this course for a maximum of 3 units Course Attributes: Upper Division; Laptop required</p>
<p>CAGD 299 Special Problems 1-3 Units Prerequisite: Faculty permission. Typically Offered: Fall and spring This course is an independent study of special problems offered for 1.0-3.0 units. You must register directly with a supervising faculty member. 0 hours supervision. (020134) Grade Basis: Credit/No Credit Repeatability: You may take this course for a maximum of 6 units Course Attributes: Lower Division</p>	<p>CAGD 340 Computer Animation 3 Units Prerequisite: CAGD 240 with a grade of C- or higher. Typically Offered: Fall and spring The concepts of computer imaging and animation are taught in this project-based course. Focus is on the principles of animation and how they apply to current computer animation techniques. This course emphasizes both creative and technical skills. 2 hours activity, 2 hours lecture. (002366) Grade Basis: Graded Repeatability: You may take this course for a maximum of 3 units Course Attributes: Upper Division</p>
<p>CAGD 320 Digital Texturing 3 Units Prerequisite: CAGD 230 with a grade of C- or higher. Typically Offered: Fall and spring This course explores the concepts, principles, practices, tools, and techniques of UV layout for 3D models and the digital texturing process. Topics include UV layout, material creation, texture painting and baking, level of detail, and import/export of final content into various media formats. Students demonstrate the concepts, principles, workflow and techniques as part of the texturing pipeline associated with industry standard practices. 2 hours activity, 2 hours discussion. (021903) Grade Basis: Graded Repeatability: You may take this course for a maximum of 3 units Course Attributes: Upper Division; Laptop required</p>	

CAGD 345W Advanced Animation Pre-Production and Story Development (W) 3 Units W, GW

Prerequisite: GE Written Communication (A2) requirement, CAGD 250 with a grade of C- or higher.

Typically Offered: Fall and spring

Concentration on story development as it directly relates to computer animation. Students write a treatment, script, and storyboard for an animation project. Emphasis is placed on understanding the story structure, writing interesting dialogue, and developing an in-depth storyboard. The course gives students a practical approach to creating the pre-production component of an animated "short." 3 hours lecture. (015871)

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 3 units

Course Attributes: Upper Division; Laptop required; Writing Course; Graduation Writing Assessment

CAGD 350 3D Scanning 3 Units

Typically Offered: Fall and spring

This course provides an introduction and technical foundation to tools and strategies used to develop 3D scanned content and deliverables leading to effective visual communication as it relates to digital production in the game and animation industries. Emphasis is placed on the basics of scanning theory, hardware uses and limitations, safety, digital capture and pipeline development. 2 hours activity, 2 hours lecture. (022149)

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 3 units

Course Attributes: Upper Division; Laptop required

CAGD 358 Emerging Technologies in Media and Entertainment 3 Units

Prerequisite: CAGD 112, CAGD 180 for CAGD majors; JOUR 255 or 255W, JOUR 260W for JOUR majors; MADT 206 for MADT majors.

Typically Offered: Fall only

This professional skills and technology course teaches students in media, entertainment, and technology fields about new and emerging trends in media and entertainment technologies, including, but not limited to, Virtual Reality, Augmented Reality, Photogrammetry, LIDAR scanning, 360 degree photo-scanning, and Motion Capture. The course is focused on the exploration of emerging technologies, as it applies to the various industries in media and entertainment, including, but not limited to, journalism, storytelling, and game development. 3 hours discussion. (021966)

Cross listing(s): JOUR 358, MADT 358

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 3 units

Course Attributes: Upper Division

CAGD 370 Video Game Development 3 Units

Prerequisite: CAGD 270, CAGD 280 both with a grade of C- or higher.

Typically Offered: Fall and spring

This course covers the principles of game design, gaming strategies, game production, and marketing. Students learn to function as a productive member of an interdisciplinary game design team to plan, document, and develop a video game concept. 2 hours activity, 2 hours lecture. (020242)

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 3 units

Course Attributes: Upper Division; Laptop required

CAGD 373 Game Asset Production 3 Units

Prerequisite: CAGD 320 with a grade of C- or higher.

Typically Offered: Fall and spring

This course explores the basic concepts, principles, practices, tools and techniques of game asset production and the production pipeline used primarily in games and interactive environments. Topics include creating, modifying, texturing, lighting, and rendering environmental and prop assets across a variety of media. Projects are designed to guide students through the process of designing digital assets and understanding how objects are important and used in games and interactive environments. Students produce game assets that demonstrate the concepts, principles, workflows, and techniques associated with game asset production. 2 hours activity, 2 hours lecture. (021633)

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 3 units

Course Attributes: Upper Division; Laptop required

CAGD 374W Interactive Storytelling in Video Games 3 Units W

Prerequisite: CAGD 345W or CAGD 370 (with a grade C- or higher).

Typically Offered: Fall and spring

This course examines video games as a storytelling medium, investigating how interactive storytelling incorporating rich characters and stories that incite an immersive experience, requires approaches to writing that may be linear or nonlinear. Students will delve into the evolution of narrative in video games along with the iterative process of writing for video games and examine the critical component of a unified experience between writer and level designer. Students will engage in the elements of narrative for video games through investigation, analysis, and design. 2 hours activity, 2 hours discussion. (022152)

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 3 units

Course Attributes: Upper Division; Laptop required; Writing Course

CAGD 375W Video Game Pre-Production 3 Units W, GW

Prerequisite: GE Written Communication (A2) requirement; CAGD 370 (with a grade C- or higher).

Typically Offered: Fall and spring

An intermediary course studying the video game pre-production and development process. This course covers the software and production processes used within the video game development industry. Emphasis is placed on game documentation, team communications, and understanding Agile production processes. The course gives students a practical approach to creating the pre-production elements of a video game. 3 hours lecture. (022194)

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 3 units

Course Attributes: Upper Division; Laptop required; Writing Course; Graduation Writing Assessment

- CAGD 377 Mobile Game Development** **3 Units**
Prerequisite: CAGD 370 with a grade of C- or higher.
Typically Offered: Fall and spring
 This course investigates the evolution of mobile gaming and the challenges for developing mobile games such as game design, art, programming, distribution, marketing, and monetization are examined. The phases in mobile game development and various roles in a development project are explored. Existing and planned mobile games are analyzed. The process of planning, designing, implementing, and producing mobile games on various architectures are also investigated. Throughout the course, game concepts and proposals are created for analysis with promising proposals moving on to planning, design, implementation, and development. 2 hours activity, 2 hours discussion. (021444)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Upper Division; Laptop required
- CAGD 380 Game Scripting** **3 Units**
Prerequisite: CAGD 280 (with a grade of C- or higher) or CSCI 211 (with a grade of C- or higher).
Typically Offered: Spring only
 This course covers an introduction to game scripting and takes the student through the process of creating games using an industry-standard game engine. The course explores using a game engine and associated scripting to maneuver characters around in 3D space, develop game environments, implement special effects, manipulate objects, script menus and graphical user interfaces, create non-player character behaviors, and much more. The student is required to have basic programming skills and game design experience from which this course expands in using scripting and game engine to create effective games. 2 hours activity, 2 hours lecture. (021604)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Upper Division; Laptop required
- CAGD 389 Industry Internship** **1-3 Units**
Prerequisite: Faculty permission.
Typically Offered: Fall and spring
 This internship is offered for 1.0-3.0 units. Students must register directly with a supervising faculty member. 0 hours supervision. (020127)
Grade Basis: Credit/No Credit
Repeatability: You may take this course for a maximum of 15 units
Course Attributes: Upper Division
- CAGD 398 Special Topics** **1-3 Units**
Typically Offered: Fall and spring
 This course is for special topics offered for 1.0-3.0 units. Typically the topic is offered on a one-time-only basis and may vary from term to term and be different for different sections. See the Class Schedule for the specific topic being offered. 3 hours lecture. (015892)
Grade Basis: Graded
Repeatability: You may take this course more than once
Course Attributes: Upper Division
- CAGD 399 Special Problems** **1-3 Units**
Prerequisite: Faculty permission.
Typically Offered: Fall and spring
 This course is an independent study offered for 1.0-3.0 units. You must register directly with a supervising faculty member. 0 hours supervision. (020135)
Grade Basis: Credit/No Credit
Repeatability: You may take this course for a maximum of 6 units
Course Attributes: Upper Division
- CAGD 420 Digital Lighting and Texturing** **3 Units**
Prerequisite: CAGD 330 with a grade of C- or higher.
Typically Offered: Fall only
 This course explores the techniques used for simulating realistic lighting and texturing in 2D and 3D environments and develops student skills in accurate image creation. 2 hours activity, 2 hours lecture. (020243)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Upper Division; Laptop required
- CAGD 432 3-D Character Rigging** **3 Units**
Prerequisite: CAGD 330 (with a grade of C- or higher) or CAGD 340 (with a grade of C- or higher).
Typically Offered: Spring only
 This course explains the technical skills and challenges of rigging for 3-D animation. Students develop key technical skills for 3-D character setup including how to build, rig, skin, pose, and test 3-D models for animation. Students explore the process of creating joints, assembling skeletons, fine-tuning rigs for realistic motion, rigging bodies and faces, and techniques for binding surfaces to skeletal rigs for animation. 2 hours activity, 2 hours discussion. (021225)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Upper Division; Laptop required
- CAGD 441 3-D Character Animation** **3 Units**
Prerequisite: CAGD 340 with a grade of C- or higher.
Typically Offered: Fall and spring
 This course covers the study of motion, timing and acting as they apply to animated characters. Emphasis is on the performance of the character and how it reads to the audience. Techniques and methods for facial expressing, lip-synching, and staging are explored. 2 hours activity, 2 hours lecture. (020245)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Upper Division; Laptop required
- CAGD 445 Advanced Animation Production** **3 Units**
Prerequisite: CAGD 330 or CAGD 340, CAGD 345W.
Typically Offered: Fall only
 The computer animation production process is taught in this class. Working from a script, storyboard, and/or animatic, students complete an "animated short" with accompanying sound, music, and visual effects. Emphasis is on working as a member of a computer animation team, similar to a real-world production facility. 3 hours discussion. (002367)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Upper Division

CAGD 458 Applied Emerging Technologies in Media and Entertainment 3 Units

Prerequisite: CAGD 112, CAGD 180 for CAGD majors; JOUR 255 or JOUR 255W, JOUR 260W for JOUR majors; MADT 206 for MADT majors.

Typically Offered: Spring only

This professional skills and technology project-based course engages students in new and emerging technologies in media and entertainment through applied projects requiring students to work in multidisciplinary teams to create completed visual content projects. The course is focused on the application of new and emerging technologies with relevance in various media and entertainment industries, including, but not limited to, journalism, storytelling, and game development. 3 hours discussion. (021969)

Cross listing(s): JOUR 458, MADT 458

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 3 units

Course Attributes: Upper Division

CAGD 470 Video Game Production 3 Units

Prerequisite: CAGD 375W (with a grade of C- or higher); CAGD 373 (with a grade of C- or higher) for CAGD majors only.

Typically Offered: Fall and spring

Using the principles of game design, students work in collaborative teams to design, implement, test, and produce a computer game. Marketing strategies are also explored. 4 hours activity, 1 hour lecture. (020246)

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 3 units

Course Attributes: Upper Division; Laptop required

CAGD 489 Industry Internship 1-3 Units

Typically Offered: Fall and spring

0 hours supervision. (020128)

Grade Basis: Credit/No Credit

Repeatability: You may take this course for a maximum of 15 units

Course Attributes: Upper Division

CAGD 493 Senior Portfolio 3 Units

Prerequisite: Senior standing in CAGD.

Typically Offered: Fall and spring

This course affords senior level students the opportunity to develop work for a professional-quality portfolio through directed senior-level projects demonstrating their creativity, and acquired aesthetic and technical skills in their area of study. Projects are selected by negotiation starting with a specific written proposal and plan. The course utilizes the process of preparing and deploying a professional portfolio to incorporate these new works and refined selections of prior works. The course also addresses self-promotional strategies and successful work practices of industry professionals. Students are required to formally present the portfolio. Class time will be a mix of lecture, discussion, presentation, critique, meetings, and activities. 3 hours discussion. (021424)

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 6 units

Course Attributes: Upper Division

CAGD 495 Advanced Production 3 Units

Prerequisite: Faculty permission.

Typically Offered: Fall and spring

This course is designed to give hands-on experience to students in Computer Animation and Game Development or related majors. Students work as collaborators on large-scale, professional productions relevant to their field of study. Content of this course is subject to change each semester. 4 hours activity, 1 hour discussion. (020563)

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 12 units

Course Attributes: Upper Division

CAGD 498 Special Topics 1-3 Units

Typically Offered: Fall and spring

This course is for special topics offered for 1.0-3.0 units. Typically the topic is offered on a one-time-only basis and may vary from term to term and be different for different sections. See the Class Schedule for the specific topic being offered. 3 hours lecture. (015891)

Grade Basis: Graded

Repeatability: You may take this course more than once

Course Attributes: Upper Division

CAGD 499 Special Problems 1-3 Units

Prerequisite: Faculty permission.

Typically Offered: Fall and spring

This course is an independent study offered for 1.0-3.0 units. You must register directly with a supervising faculty member. 0 hours supervision. (020136)

Grade Basis: Credit/No Credit

Repeatability: You may take this course for a maximum of 6 units

Course Attributes: Upper Division

CAGD 499H Honors Project 3 Units

Prerequisite: Junior standing, top 5% of major.

Typically Offered: Fall and spring

An enrolled student must be sponsored by a full-time faculty member in Computer Animation and Game Development. Independent study resulting in a piece of scholarly or creative work involving substantial research to be completed and publicly presented. Must receive a grade of B or higher. This course must be taken during two consecutive semesters in order to complete the 6-unit Honors project. This course is not available to graduate students. 9 hours supervision. (020643)

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 6 units

Course Attributes: Upper Division

CAGD 545 Advanced Animation Post-Production 3 Units

Prerequisite: CAGD 330 or CAGD 340, CAGD 345W

Typically Offered: Spring only

This course focuses on the completion of animation projects in the post-production environment, including editing, music, sound effects, and other post-production elements to successfully complete professional-level short animations. Emphasis is on working as a member of a computer animation team, similar to a real-world production facility. 3 hours discussion. (020248)

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 3 units

Course Attributes: Upper Division

CAGD 589 Industry Internship 1-3 Units

Typically Offered: Fall and spring

0 hours supervision. (020129)

Grade Basis: Credit/No Credit

Repeatability: You may take this course for a maximum of 15 units

Course Attributes: Upper Division

CAGD 598 Special Topics**1-3 Units**

Master of Arts CSU-Chico

Prerequisite: Department permission.**Typically Offered:** Fall and spring

This course is for special topics offered for 1.0-3.0 units. Typically the topic is offered on a one-time-only basis and may vary from term to term and be different for different sections. See the Class Schedule for the specific topic being offered. 0 hours lecture. (020132)

Grade Basis: Graded**Repeatability:** You may take this course more than once**Course Attributes:** Upper Division**Cody W Philbrook** 2021

Lecturer

Nathan J Pool 2021

Lecturer

Mark K Pullyblank 2012

Lecturer

Certificate Vancouver Inst of Media Arts, Vancouver BC, Canada

CAGD 599 Special Problems**1-3 Units****Prerequisite:** Faculty permission.**Typically Offered:** Fall and spring

This course is an independent study of special problems offered for 1.0-3.0 units. You must register directly with a supervising faculty member. 0 hours supervision. (020137)

Grade Basis: Credit/No Credit**Repeatability:** You may take this course for a maximum of 6 units**Course Attributes:** Upper Division**Martin A Salcedo** 2019

Lecturer

Bachelor of Science CSU-Chico

Clarke H Steinback 1993

Program Coordinator

Doctor of Philosophy Univ Of Cal-Santa Cruz

Jeff M Underwood 2012

Lecturer

Bachelor of Science CSU-Chico

CAGD 697 Independent Study**1-6 Units****Typically Offered:** Fall and spring

0 hours supervision. (020138)

Grade Basis: Credit/No Credit**Repeatability:** You may take this course for a maximum of 10 units**Course Attributes:** Graduate Division**Jennifer K Underwood** 2015

Lecturer

Master of Arts CSU-Chico

CAGD 698 Graduate Seminar in Computer Graphics**3 Units****Connor W Zelinsky** 2019

Lecturer

Master of Science Glasgow School of Art/Glasgow University

Typically Offered: Inquire at department

3 hours seminar. (020402)

Grade Basis: Graduate Graded**Repeatability:** You may take this course for a maximum of 3 units**Course Attributes:** Graduate Division

Computer Animation and Game Development Program

The Faculty

Daniel G Alioto 2018

Lecturer

Associate of Arts Orlando College

Christina G Backlund 2015

Lecturer

Master of Arts CSU-Chico

Preston Farris 2023

Lecturer

Bachelor of Science CSU-Chico

Dean Fogle 2019

Lecturer

Bachelor of Science CSU-Chico

Edgar I Garcia Muro 2019

Lecturer

Bachelor of Science CSU-Chico

Kilan S Larsen 2021

Lecturer

Associate of Arts Irvine Valley College

Frank L Pereira 2003

Lecturer