COMPUTER ART (CAR)

CAR 101 Introduction to 3D Animation (3 Credits)
Film and Media Arts
The first course in this three course series focuses on concepts, aesthetics, and practice of 3D animation and visual effects. This course is an introduction to modeling, texturing, digital-sculpting and shading.

CAR 102 Art and Craft of Animation (3 Credits)
Film and Media Arts
Introductory studio course explores animation history and practice, with a strong emphasis on practice. Students will learn important animation techniques and modalities and build a foundation for further coursework or personal exploration of animation.

CAR 111 Introduction to Programming for Visual Art (3 Credits)
Film and Media Arts
An introductory course that combines the programming/scripting of digital art projects with thinking about software, interactive digital art, and digital culture.

CAR 131 Introduction to Multimedia (3 Credits)
Film and Media Arts
The fundamentals for making art with computers in consideration of time and interactivity. The fundamentals of using programming and software applications for multimedia and the internet.

CAR 200 Selected Topics (1-6 Credits)
Film and Media Arts
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.
Repeatable

CAR 201 Intermediate 3D Animation (3 Credits)
Film and Media Arts
The second course in this three course series focuses on concepts, aesthetics, and practice of 3D animation and visual effects. This course will be an introduction to keyframe, procedural and character animation.
Prereq: CAR 101

CAR 211 Introduction to Electronics and electronic Object Making for Art (3 Credits)
Film and Media Arts
An introductory level physical computing class. The course covers electrical and mechanical engineering techniques for the purpose of art and cultural production.

CAR 230 Topics in Computer Gaming I (3 Credits)
Film and Media Arts
Exploring computer gaming topics assigned at the outset of the semester. Topics may include mobile gaming, pervasive gaming, self-made alternative game controllers for existing games, or 3D gaming.

CAR 233 2D Computer Gaming (3 Credits)
Film and Media Arts
Introduction to various software techniques and programming concepts that are central to creating computer games in 2D environments. Experimental practices and critical theory associated with this field will supplement the practical lessons.

CAR 240 Multimedia Programming (3 Credits)
Film and Media Arts
Techniques for creating procedural, data-driven, and interactive visuals, as well as cultural issues regarding the nature of online communication. May not be repeated for credit.
Prereq: CAR 111

CAR 241 Audio Production and Recording I (3 Credits)
Film and Media Arts
The course will focus on digital audio production in the media arts. Emphasis on the relationship between sound and image. Topics include studio recording, field recording, microphone and mixing techniques.
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/)

CAR 270 Experience Credit (1-6 Credits)
Film and Media Arts
Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing.
Repeatable

CAR 290 Independent Study (1-6 Credits)
Film and Media Arts
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department.
Repeatable

CAR 300 Selected Topics (1-6 Credits)
Film and Media Arts
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.
Repeatable

CAR 301 Advanced Animation (3 Credits)
Film and Media Arts
The third course in this three course series focuses on concepts, aesthetics, and practice of 3D animation and visual effects. This course will be an introduction to lighting, rendering, and effects (hair, cloth, and dynamics).
Prereq: CAR 201
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/)

CAR 302 Previz and Character Development for Animation (3 Credits)
Film and Media Arts
This course will get you inside your animation and game characters. Who are they? Where did they come from? Why are they holding that chainsaw?

CAR 320 Topics in 3D Animation (3 Credits)
Film and Media Arts
This course focuses on the implementation of various concepts in digital production and provides students with advanced techniques in 3D animation. Students will produce portfolio-quality graphics that deliver advanced aesthetics. Emphasis will be placed on visual expression/communication of digital creation.
Repeatable 4 times for 12 credits maximum
Prereq: CAR 101
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/)

CAR 330 Topics in Computer Gaming II (3 Credits)
Film and Media Arts
This course focuses on ambitious gaming projects in a collaborative environment. Students will work in groups to design, develop, and implement a computer game. Platform and delivery format will vary
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/); Communication Skills (https://coursecatalog.syracuse.edu/shared-competencies/communication-skills/); Information Literacy and Technological Agility (https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/)

CAR 340 Computer Gaming (3 Credits)
Film and Media Arts
Techniques for creating computer games. Explores gaming theory, strategy, and aesthetics. May not be repeated for credit.
Prereq: CAR 240

CAR 341 Audio Production and Recording II (3 Credits)
Film and Media Arts
This course will build on the foundation of CAR 241. Includes advanced sound mix, mastering, installation and delivery formats, and advanced wave form synthesis.
Prereq: CAR 241

CAR 380 International Course (1-12 Credits)
Film and Media Arts
Repeatable

CAR 400 Selected Topics (1-6 Credits)
Film and Media Arts
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.
Repeatable

CAR 401 Animation Workshop I (3 Credits)
Film and Media Arts
Integrate skills and knowledge gained in the first three animation courses into full-on, industry-style production. You will work collaboratively on ambitious projects, participating in every aspect of production of an animated short film.
Prereq: CAR 301
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/)

CAR 402 Visual Effects Workshop I (3 Credits)
Film and Media Arts
A focus on the prospect of integrating the 2D and 3D worlds within the context of contemporary visual effects, while developing clear professional based workflows to be implemented in future creative art practice.

CAR 415 History of Animation (3 Credits)
Film and Media Arts
Viewing, discussing, writing and reading about examples from many periods foster a context for contemporary practice in this dynamic medium.
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/)

CAR 430 Computer Art Seminar (3 Credits)
Film and Media Arts
Students will propose and complete a major individual or collaborative studio project.
Repeatable 2 times for 9 credits maximum
Prereq: Senior level
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/)

CAR 431 Senior Project I (3 Credits)
Film and Media Arts
The first course in this two-course series focuses best creative and intellectual resources in the realization of the senior project and portfolio. Students pursue areas of personal interest and explore new ideas in the fulfillment of artistic goals.
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/)

CAR 432 Senior Project II (3 Credits)
Film and Media Arts
The second course in this two-course series focused on best creative and intellectual resources in the realization of the senior project and portfolio. Students pursue areas of personal interest and explore new ideas in the fulfillment of artistic goals.
Prereq: CAR 431 and Senior Level

CAR 440 Computer Visualization (3 Credits)
Film and Media Arts
Computer visualization techniques for the generation, manipulation, and presentation of visual information in both the technical and cultural contexts. May not be repeated for credit.
Prereq: CAR 340

CAR 470 Experience Credit (1-6 Credits)
Film and Media Arts
Repeatable

CAR 490 Independent Study (1-6 Credits)
Film and Media Arts
Repeatable

CAR 499 Honors Capstone Project (1-3 Credits)
Film and Media Arts
Completion of an Honors Capstone Project under the supervision of a faculty member
Repeatable 3 times for 3 credits maximum

CAR 500 Selected Topics (1-6 Credits)
Film and Media Arts
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.
Repeatable

CAR 501 Animation Workshop II (3 Credits)
Film and Media Arts
Building on the collaborative animation experience from the first semester of the animation workshop, students step into supervisor roles helping to manage all aspects of the production of an animated short film.
Prereq: CAR 401

CAR 502 Visual Effects Workshop II (3 Credits)
Film and Media Arts
Building on the collaborative VFX experience from the first semester of the VFX workshop, students step into supervisor roles helping to manage all aspects of the production team(s) workflow.
Prereq: CAR 402

CAR 530 Special Topics in Digital Art (3-12 Credits)
Film and Media Arts
Various topics in digital art are explored through research, creative activity, and theoretical discussion. Topics address historical as well as contemporary issues that bridge art and technology.
Repeatable
Prereq: CAR 101
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/)